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## Brief Report: Sexual Wellbeing in Heterosexual, Mostly Heterosexual, and Bisexually Attracted Men and Women

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### Abstract

**Objective:** To assess differences in sexual wellbeing among men and women with exclusively heterosexual, mostly heterosexual, and bisexual attractions.

**Method:** An anonymous online survey in a convenience sample of 597 young adults (394 women, 203 men; average age = 20.04) assessed patterns of sexual attraction, desire, sexual functioning, and sexual satisfaction using validated questionnaires.

**Results:** Individuals with mostly heterosexual attractions reported significantly higher solitary sexual desire than exclusively heterosexual individuals (women:  $d = 0.64$ ; men:  $d = 0.68$ ). Partnered sexual desire did not differ between groups. Women with exclusively heterosexual attractions reported significantly higher sexual functioning and satisfaction than either mostly heterosexual or bisexually attracted women (functioning:  $d = 0.29$ ; satisfaction:  $d = 0.47$ ). Men with mostly heterosexual attractions reported significantly lower sexual functioning than either exclusively heterosexual or bisexually attracted men ( $d = 0.40$ ).

**Conclusions:** There were significant differences between exclusively vs. mostly heterosexual individuals in several aspects of sexual wellbeing, supporting the assertion that mostly heterosexual may constitute a distinct orientation. Taken together with prior research showing higher rates of sexual dysfunction in bisexual women, these findings highlight sexual health disparities among nonmonosexual women. Efforts to support the sexual wellbeing of sexual minority individuals should include consideration of mostly heterosexual individuals, as this population may have unique sexual health needs.

### Keywords

Mostly heterosexual; sexual desire; sexual function; sexual satisfaction; bisexuality; sexual orientation

### Introduction

Few sexologists would contest that sexual orientation and attraction patterns occur on a spectrum, with many individuals falling somewhere between exclusively heterosexual and exclusively gay/lesbian—or even outside this binary altogether (van Anders, 2015). Despite

this, there is surprisingly little research on the sexual wellbeing of individuals who are nonmonosexual—that is, who experience neither solely heterosexual nor solely gay/lesbian attractions. In particular, there is little known regarding sexual wellbeing among mostly heterosexual individuals: people with predominantly, but not exclusively, heterosexual attractions and partnerships (Savin-Williams & Vrangalova, 2013). This is a significant gap in the literature, as population estimates of individuals with mostly heterosexual attractions are as high as 7.6–9.5% of women and 3.6–4.1% of men (Savin-Williams & Vrangalova, 2013). The present study explored sexual desire, function, and satisfaction in young adults with mostly heterosexual attractions. There were three goals for these exploratory analyses: to test if sexual attraction patterns predict differences in sexual desire, potentially identifying a mechanism by which nonmonosexual orientation develops; to document differences in sexual functioning and satisfaction between exclusively heterosexual versus nonmonosexual individuals, with an aim of informing clinical management of sexual well-being in sexual minority patients; and to stimulate further research in mostly heterosexuality as a distinct orientation.

Traditionally, researchers have either excluded mostly heterosexual individuals or categorized them as heterosexual or bisexual. More recently, there has been greater recognition of mostly heterosexual as a unique orientation, separate from that of heterosexual or bisexual identities, with distinctive patterns of attraction and sexual behaviors (Savin-Williams & Vrangalova, 2013). To date, however, most studies in this population have focused on either defining and legitimizing the mostly heterosexual orientation, or comparing sexual risk or mental health disparities among mostly heterosexuals against that of heterosexuals or bisexuals (Vrangalova & Savin-Williams, 2014). For example, although there has been some attention paid to differences in physiologic arousal patterns in mostly versus exclusively heterosexual individuals, this literature has treated arousal as a means of clarifying the boundaries of attraction in these populations rather than a feature of sexual functioning (Savin-Williams, 2018; Savin-Williams, Rieger, & Rosenthal, 2013). Although some work has described predominantly (but not exclusively) heterosexual attractions in ethnic minority men in the United States (Millet, Malebranche, Mason, & Spikes, 2005), considerably less scholarly attention has been paid to mostly heterosexual attractions in ethnic minority women, or in populations outside the United States. Regardless, what little work has been conducted in ethnic minorities and in international samples has paralleled that in U.S. samples with a focus on documenting the existence of mostly heterosexual individuals (e.g., Greaves et al., 2017) or mental health disparities in mostly heterosexuals (e.g., Poon, Saewyc, & Chen, 2011) rather than understanding how mostly heterosexual orientation may relate to sexual wellbeing. In particular, the exclusive focus on sexual risk among mostly heterosexual people of color has been criticized for supporting racialized narratives that demonize minority sexuality (Ford, Whetten, Hall, Kaufman, & Thrasher, 2007). The present study is part of an effort to question the dominant risk narratives in research on sexual minorities, instead focusing on sexual wellbeing and positive outcomes such as satisfaction.

Mostly heterosexual individuals report a broader range of sexual attractions and more sexual partners than exclusively heterosexual individuals, implying that they may experience higher sexual desire (Savin-Williams & Vrangalova, 2013). That is, it is possible that higher levels

of sexual desire indicate a more unrestricted sociosexuality (i.e., greater desire for sexual activity across a range of contexts). This in turn may be associated with an unrestricted sexual orientation as well (Savin-Williams & Vrangalova, 2013). If so, we should expect that the aspects of sexual desire that are more closely associated with an unrestricted sociosexuality will be more likely to differ between mostly vs. exclusively heterosexual individuals. Solitary sexual desire (e.g., desire for masturbation) has been shown to differentiate individuals with and without an unrestricted sociosexuality, whereas partnered sexual desire is similar across groups (van Anders, 2015). Thus, I predicted that relative to exclusively heterosexuals, mostly heterosexuals and bisexuals would report higher solitary sexual desire but not higher partnered desire. If so, this would have implications for theories regarding development of non-monosexual orientations (including mostly heterosexual). Higher solitary sexual desire (reflecting a more unrestricted sociosexuality) may indicate a greater tendency to find sexual stimulation rewarding in general, which may also subtly shape a tendency to be flexible in seeking sexual reward from a wider variety of possible sources—that is, developing a less monosexual orientation (Safron, 2018).

There are a number of factors that may contribute to unique sexual needs in nonmonosexual individuals, such as greater difficulty navigating sexual communication (particularly when partnered with opposite sex partners; Mark, Bunting, & Moore, 2018; Rosenkrantz & Mark, 2018), higher rates of sexually transmitted infections (Bostwick, Hughes, & Everett, 2015; Marrazzo, Coffey, & Bingham, 2005), and greater barriers to access to sexual healthcare that is inclusive of sexual minorities (Charlton et al., 2011; Everett, Higgins, Haider, & Carpenter, 2019). It is not clear the extent to which these same factors apply to mostly heterosexual individuals. More broadly, it is unclear how to best manage clinical care of sexual functioning and satisfaction in mostly heterosexual individuals. Are sexual functioning and satisfaction in mostly heterosexuals more closely aligned with that of exclusively heterosexuals or bisexuals (or neither)? The answer to this question will lead to different clinical approaches based on different models of sexual wellbeing. For example, if mostly heterosexual individuals have sexual functioning and satisfaction that closely mimics that of their exclusively heterosexual counterparts, it would suggest that minority stress may have a more limited impact on sexual wellbeing and may not be as relevant to address in treatment as it would be for bisexual clients.

The literature on sexual functioning in nonmonosexuals has been mixed. Some reports show that bisexual women enjoy higher rates of orgasm function (Frederick, John, Garcia, & Lloyd, 2018) and higher desire/arousal (Flynn, Lin, & Weinfurt, 2017; Persson, Ryder, & Pfaus, 2016) than exclusively heterosexual women. However, a large, nationally representative study found that bisexual women reported significantly higher sexual pain than did heterosexual women (Flynn et al., 2017). Bisexual men report similar levels of erectile function and orgasm function as heterosexual men (Flynn et al., 2017), but may experience higher body dissatisfaction leading to sexual distress (Levitan, Quinn-Nilas, Milhausen, & Breuer, 2018). Based on these reports, I predicted that individuals with mostly heterosexual attractions would differ from those with exclusively heterosexual attractions in sexual desire, orgasm, and pain functioning, with more substantial differences in women than men.

There is some evidence that bisexual women in opposite-gender relationships have lower relationship and sexual satisfaction than heterosexual women (Morandini, Pinkus, & Dar-Nimrod, 2018). When bisexual women are partnered with men, they often report that their sexual orientation is not only unacknowledged, it is silently erased (i.e., “bi-erasure”). Bi-erasure may lead to dissatisfaction with communication with one’s sexual partner (Mark, Bunting, et al., 2018). On the other hand, bisexual women report satisfaction in a wider range of sexual contexts (e.g., casual vs. committed relationships) than do either heterosexual or lesbian women (Mark, Garcia, & Fisher, 2015). To date, this literature has not included examination of sexual satisfaction in mostly heterosexual women. I predicted that mostly heterosexual women would report lower sexual satisfaction than exclusively heterosexual women, as they too would experience erasure of their orientation when in relationships with men.

## Methods

Data for these analyses were derived from a survey of sexual wellbeing in young adults with and without mental health histories; a detailed description of methods can be found in Lorenz (2019). In brief, I conducted an online survey of 607 participants who were students recruited from the psychology participant pools at the University of North Carolina at Charlotte and the University of Nebraska, as well as community members recruited with advertisements on social media and online boards such as Craigslist. Participants were offered either credit toward research requirements or the option to be entered into a monthly drawing for a gift card. Any participant who was over 18 and could read English was eligible. Following research guidelines for self-administered online surveys (Berinsky, Margolis, & Sances, 2014), I used multiple attention checks and did not include data from participants who did not pass these checks. All participants provided informed consent and procedures were approved and overseen by the Institutional Review Boards at the University of North Carolina at Charlotte and the University of Nebraska.

Sexual desire was measured in all individuals who provided complete data on sexual attraction patterns and desire, regardless of their current partnership or sexual activity status ( $N = 597$ ). Analyses of sexual function were restricted to individuals who indicated some sexual activity (either masturbation or partnered sex) in the past month ( $N = 570$ ) whereas analyses of sexual relationship satisfaction were restricted to individuals who indicated a current partner with whom they were sexually active ( $N = 242$ ).

## Demographics and sexual attraction patterns

Participants were asked their age, gender, race/ethnicity, sexual relationship status, and sexual activity status (sexually active vs. inactive within the past month). Sexual attraction pattern categories were constructed according to participants’ self-reported sexual attraction to men, women, and gender nonbinary people. Participants were asked to indicate their level of attraction to each group on a slider that ranged from 0% (*no attraction*) to 100% (*very high attraction*); these sliders did not have to sum to 100% and participants were free to indicate very high, very low, or no answer on all three sliders in whatever combination best fit their orientation. As no participant indicated their own gender as “gender nonbinary” or

“other,” I considered attraction to gender nonbinary individuals as attraction to an opposite gender group. Participants reporting predominant attractions to an opposite gender group and no attractions to any other group were coded as “exclusively heterosexual” ( $n = 423$ ). Participants who reported primary attractions to an opposite gender group ( $>80\%$ ) but also minor attractions to a same-gender group ( $<20\%$ ), were coded “mostly heterosexual” ( $N = 87$ ). Finally, participants reporting more than incidental attraction ( $<20\%$ ) to more than one group were labeled “bisexual/pansexual” ( $N = 87$ ). For example, a woman who reported 95% attraction to men and 5% attraction to gender nonbinary individuals would be coded as “mostly heterosexual,” whereas a man who reported 50% attraction to men, women, and gender nonbinary individuals would be coded as “bisexual/pansexual.” There were only 12 participants (six men, six women) who reported either predominantly or exclusively same-gender attractions; given the very low power in such a small subgroup, I dropped these participants from further analysis.

### **Sexual desire inventory**

Sexual desire was measured using the Sexual Desire Inventory (SDI; Spector, Carey, & Steinberg, 1996), a widely used and well-validated self-report inventory. The originally proposed two-factor structure included solitary sexual desire (e.g., desire for masturbation) and dyadic sexual desire (e.g., desire for partnered sexual activity). More recently, authors have recommended a three-factor structure, arguing that the dyadic sexual desire factor encompasses two subfactors: desire for one’s sexual partner and desire for an attractive other (Moyano, Vallejo-Medina, & Sierra, 2017). Mark, Toland, Rosenkrantz, Brown, & Hong (2018) evaluated both factor structures of the SDI in a sample of LGBTQ+ participants and found that the three-factor solution explained significantly more variance in the measure and had better psychometric properties (e.g., better within-subscale internal consistency). In this analysis, I followed scoring recommendations of Mark, Toland, et al. (2018) including three subscales: solitary desire, partnered desire, and desire for an attractive other.

### **Female Sexual Function Index (Modified)**

Sexual function was assessed using the Female Sexual Function Index (FSFI; Rosen et al., 2000). The FSFI is a brief self-report inventory that assesses sexual function over the past month across six domains: desire, arousal, genital response, orgasm, satisfaction, and sexual pain. Higher scores indicate better sexual functioning (in the case of pain, higher scores reflect lower pain). I modified the FSFI wording to reflect both male and female genital response (e.g., changing “lubrication” to “lubrication or erection”). Following recommendations from researchers using the FSFI in LGBT populations, I also modified descriptions of “sexual activity” to include multiple forms of sexual activity such as masturbation, vaginal penetration with a penis or toy, or nonpenetrative sex (Boehmer, Timm, Ozonoff, & Potter, 2012). Scores on the FSFI have been shown to differentiate between participants with and without orgasm or desire dysfunction (Meston, 2003), with a validated clinical cutoff score for global sexual dysfunction (Wiegel, Meston, & Rosen, 2005). The FSFI has been used in a variety of LGBT populations including lesbian and bisexual women (Sobecki-Rausch, Brown, & Gaupp, 2017) and gay men (Vansintejan, Janssen, Van De Vijver, Vandevoorde, & Devroey, 2013).

## Sexual satisfaction scale

Sexual satisfaction was assessed with the Sexual Satisfaction Scale (SSS; Meston & Trapnell, 2005). The SSS measures satisfaction with one's sexual function and sexual relationship across five domains: contentment with one's sexuality overall, compatibility with sexual partner(s), communication with sexual partner(s), distress about how sexual problems impact the relationship (relational concerns), and distress about how sexual problems impact the individual personally (personal concerns). Higher scores reflect better sexual wellbeing (for the two distress scales, higher scores indicate lower distress). The SSS has been validated for use in both men and women (Meston & Trapnell, 2005; Stephenson, Truong, & Shimazu, 2018).

## Statistical plan

For each measure, I conducted a multivariate analysis of variance, with follow-up least significant difference contrast tests for any omnibus effect of  $d > 0.20$  (i.e., a moderate effect size). Effects with  $p < 0.05$  were considered significant; however, it should be noted that some nonsignificant omnibus effects had effect sizes large enough to probe for specific contrasts. Sexual attraction group (exclusively heterosexual, mostly heterosexual, bisexual) was entered as a fixed independent effect, and the relevant subscales for each scale (SDI, SSS, and FSFI) as the dependent variable. There were a number of significant differences between men and women in sexual desire, satisfaction, and sexual functioning, so I conducted analyses separately by gender.

## Results

### Descriptive statistics and demographics

Participants were predominantly women (66%). On average, participants were young adults ( $M_{\text{age}} = 20.04$ ,  $SD = 3.28$ ). A majority (61%) reported their race/ethnicity as White non-Hispanic; the remaining participants identified as Black (16%), mixed race or biracial (9%), White Hispanic (7%), Asian (7%), or other (<1%). Of the participants in sexual relationships, 79% indicated a monogamous dating relationship, 14% indicated a consensually nonmonogamous dating relationship, and 7% were married or living with their partner.

### Sexual desire

In both men and women, there was a significant effect of sexual attraction patterns on solitary sexual desire (men:  $F(2) = 11.08$ ,  $p < 0.001$ ,  $d = 0.68$ ; women:  $F(2) = 18.81$ ,  $p < 0.001$ ,  $d = 0.64$ ). Men with exclusively heterosexual attractions reported significantly less solitary desire than mostly heterosexual men, who in turn reported significantly less desire than bisexual men. Among women, exclusively heterosexual participants reported significantly lower solitary sexual desire than either mostly heterosexual or bisexual women (Figure 1). The overall effect of group on desire for an attractive other was not significant (men:  $F(2) = 2.27$ ,  $p = 0.106$ ,  $d = 0.31$ ; women:  $F(2) = 2.311$ ,  $p = 0.101$ ,  $d = 0.23$ ). However, in both cases the effect size was large enough to warrant consideration of follow-up contrasts. Men with mostly heterosexual attractions reported higher sexual desire for an

attractive other than exclusively heterosexual men (contrast = 2.60,  $SE = 1.23$ ,  $p = .035$ ). Women with bisexual attractions reported greater desire for an attractive other than exclusively heterosexual women, but this contrast was not statistically significant (contrast = 1.65,  $SE = 0.88$ ,  $p = .062$ ). Finally, groups did not differ significantly in partnered sexual desire, and effect sizes were very small (men:  $F(2) = 0.10$ ,  $p = 0.906$ ,  $d = 0.06$ ; women:  $F(2) = 0.06$ ,  $p = 0.946$ ,  $d = 0.03$ ).

### Sexual functioning

For both men and women, there was a significant effect of sexual attraction pattern on overall sexual functioning scores (men:  $F(2) = 3.48$ ,  $p = 0.033$ ,  $d = 0.40$ ; women:  $F(2) = 3.12$ ,  $p = 0.045$ ,  $d = 0.29$ ). Men with mostly heterosexual attractions had significantly lower sexual functioning than those with either exclusively or bisexual attractions. On the other hand, women with exclusively heterosexual attractions reported significantly higher overall sexual functioning than women either mostly heterosexual or bisexual attractions (Figure 2). Attraction patterns did not significantly predict classification as sexually functional/dysfunctional in either men or women (men:  $\chi^2(2) = 2.09$ ,  $p = 0.35$ ; women:  $\chi^2(2) = 0.24$ ,  $p = 0.89$ ).

Among men, there was a significant effect of sexual attraction patterns on orgasm functioning,  $F(2) = 3.974$ ,  $p = 0.021$ ,  $d = 0.43$  (Figure 3), such that exclusively heterosexual men reported significantly higher orgasm function than mostly heterosexual men (contrast = 0.53,  $SE = 0.19$ ,  $p = .006$ ) but not bisexual men (contrast = 0.34,  $SE = 0.27$ ,  $p = .202$ ). In women, the overall effect of sexual attraction pattern on sexual pain was not statistically significant, but it was large enough to consider specific contrasts,  $F(2) = 2.86$ ,  $p = 0.059$ ,  $d = 0.28$ . Bisexual women reported significantly higher sexual pain (i.e., lower pain functioning) than exclusively heterosexual women (contrast = 0.302,  $SE = 0.15$ ,  $p = 0.049$ ), but no difference from mostly heterosexual women (contrast = 0.027,  $SE = 0.19$ ,  $p = 0.886$ ). None of the other sexual functioning subscales differed by attraction pattern (all  $ps > 0.1$ ).

### Sexual satisfaction

In women, sexual attraction patterns significantly predicted sexual contentment,  $F(2) = 4.18$ ,  $p = 0.017$ ,  $d = 0.43$ ; concerns about the sexual relationship,  $F(2) = 4.37$ ,  $p = 0.014$ ,  $d = 0.44$ ; personal sexual concerns,  $F(2) = 3.58$ ,  $p = 0.030$ ,  $d = 0.40$ ; and overall sexual satisfaction,  $F(2) = 5.02$ ,  $p = 0.008$ ,  $d = 0.47$ . Across domains of sexual satisfaction, exclusively heterosexually attracted women reported significantly higher satisfaction than either mostly heterosexual or bisexually attracted women (Figure 4). In men, the effect of sexual attraction pattern on compatibility with sexual partners was not significant but effect sizes warranted consideration of follow-up contrasts,  $F(2) = 3.10$ ,  $p = 0.053$ ,  $d = 0.20$ . Men with mostly heterosexual attractions reporting significantly higher sexual compatibility than exclusively heterosexual men (contrast = 3.22,  $SE = 1.30$ ,  $p = 0.016$ ).

### Discussion

The vast majority of research on nonmonosexuals has focused on negative sexual health outcomes, such as sexually transmitted infection risk (Feinstein & Dyar, 2017) or disparities



in rates of sexual assault (Austin, Roberts, Corliss, & Molnar, 2008; Persson, Pfaus, & Ryder, 2015). Relatively less is known about the eudemonic aspects of sexual wellbeing of nonmonosexuals; in particular, to date there has been no study of the sexual wellbeing of mostly heterosexual individuals. The present study explored sexual desire, functioning, and satisfaction in a sample of men and women who reported exclusively heterosexual, mostly heterosexual, or bisexual patterns of sexual attraction. There were several significant differences between exclusively versus mostly heterosexuals, supporting the hypothesis that these constitute meaningfully different subpopulations. Notably, women with nonmonosexual attractions had significantly lower sexual functioning and satisfaction than their exclusively heterosexual counterparts, pointing to important health disparities.

### **Sex/gender differences in associations between sexual orientation and sexual wellbeing**

Previous studies have found that mostly heterosexuals tend to report patterns of sexual activity that fall between that of exclusively heterosexuals and bisexuals (Savin-Williams & Vrangalova, 2013); in turn, it may be expected that sexual desire in individuals with mostly heterosexual attractions would similarly fall between that of heterosexuals and bisexuals. There was some evidence of this pattern for sexual desire in men, as there was a step-wise increase in solitary desire and desire for an attractive partner with increasing degree of nonheterosexual attractions. In women, however, sexual desire was similar between nonmonosexual groups. That is, mostly heterosexual and bisexually attracted women reported similar levels of sexual desire across dimensions. Although the cross-sectional design of this study precludes any conclusions regarding the direction of causality, it is possible that these results point to sex/gender differences in the role of sexual desire in the construction of nonmonosexual orientation.

Several theorists have conceptualized same-sex sexuality in mostly heterosexual men as reflecting opportunistic relief of high sexual drive (Silva & Whaley, 2018). For example, Silva (2018) described a group of mostly heterosexual men who see their same-sex activity as “helping a buddy out”; often, this behavior happens outside the context of their primary (heterosexual) relationship (Carrillo & Hoffman, 2018). In other words, higher sexual desire combined with a less restricted sociosexuality may lead some men to try same-sex behavior, which then leads to development of a mostly heterosexual or bisexual orientation, depending on the degree of experience. In contrast, nonmonosexual attractions in girls appear to emerge before sexual debut (Calzo, Masyn, Austin, Jun, & Corliss, 2017); this suggests that actual same-sex behavior may play less of a role in the initial development of women’s mostly heterosexual orientations. Instead, following the rules inherent in compulsory heteronormativity (Boyer & Lorenz, under review), young women may feel that their sexual desire should be primarily directed toward their (male) partner; thus, only women who have higher solitary (i.e., nonpartnered) desire would be able to support other attractions. Future research may tease apart these mechanisms by tracking the ways in which solitary and partnered desire influence same-sex behavior and attraction patterns over time.

### **Sexual functioning and satisfaction in nonmonosexuals: Clinical implications**

In general, women with exclusively heterosexual attractions reported higher sexual functioning and satisfaction than either mostly heterosexual or bisexually attracted women.

This pattern suggests that mostly heterosexual women and bisexual women may experience some of the same risk factors for sexual problems, such as sexual minority stress (DiPlacido, 1998), internalized homophobia (Frost & Meyer, 2009), or heterosexual partner's biphobia (Hertlein, Hartwell, & Munns, 2016). Nonmonosexual women may be more likely to be partnered with someone who does not share their sexual orientation than either exclusively heterosexual or lesbian women; as such, their partners may be less likely to understand their unique sexual needs. It is also possible that mostly heterosexual and bisexual women share similar sexual self-schema (one's thoughts and attitudes about one's own sexuality) and, in turn, similar cognitive and emotional diatheses for developing sexual dysfunction (Cyranowski, Aarestad, & Andersen, 1999; Lorenz, 2019). Of particular clinical importance is the higher rates of sexual pain reported by mostly heterosexual and bisexually attracted women, relative to exclusively heterosexual women: taken together with prior findings that bisexual women report higher sexual pain than lesbians (Flynn et al., 2017), these data suggest that nonmonosexuality is a risk factor for sexual pain in women. More broadly, these findings highlight the need to include mostly heterosexual individuals in efforts to develop interventions for managing sexual dysfunction among sexual minorities. Also, these findings highlight the clinical need to assess our client's sexual attraction patterns—regardless of the gender of the client's current partner(s)—because identifying these attractions may reveal important risk factors for sexual problems.

### Limitations

There were some limitations to the present study that temper interpretations of the findings. These findings should be treated as reflecting associations in individuals with mostly heterosexual attraction patterns, which may or may not parallel associations among individuals who *identify* as mostly heterosexual. Much research has documented differences between individuals who identify as bisexual and those who are behaviorally bisexual (Gates, 2011); likely, there will be similar differences for those who report mostly heterosexual attractions (as in this study) and those who label themselves with a mostly heterosexual identity. The sample, although ethnically diverse, lacked diversity in other dimensions such as age, relationship status, and gender orientation. Finally, this sample was not large enough to detect statistically significant effects smaller than  $d = 0.18$  with adequate power; although small, an effect of  $d < 0.18$  could be potentially significant when considered at a population level. These limitations should be considered in light of the strengths of the study, which included use of questionnaires that have been validated in nonheterosexual populations, use of attention checks and data quality screening, and novel data on individuals with mostly heterosexual attractions.

### Directions for future research

As this was a secondary analysis of data collected in a larger study of mental health in young adults, the study was not specifically designed for consideration of all of the relevant covariates of sexual orientation; thus, these findings should be considered exploratory. Replication is certainly warranted, with a particular need to compare effects in older adults whose sexual health is likely to differ from this sample of young adults (Fredriksen-Goldsen, Shiu, Bryan, Goldsen, & Kim, 2016). As this research was cross-sectional, future work should examine the direction of causality: Does sexual orientation lead to different levels of

sexual wellbeing, or does sexual wellbeing in some way influence adoption of a nonheterosexual orientation? Finally, the findings that mostly heterosexual and bisexually attracted men and women experience lower sexual functioning and satisfaction than their exclusively heterosexual counterparts highlight the need for prevention efforts to address sexual health disparities in nonmonosexuals.

## Conclusions

There are important differences between individuals who report mostly heterosexual attraction patterns from those who report exclusively heterosexual or bisexual attractions. In the present study, I found that mostly heterosexuals differed from exclusively heterosexuals and from bisexuals in solitary sexual desire but not partnered desire. I also found differences in women's sexual function and satisfaction, with mostly heterosexuals reporting poorer sexual wellbeing than exclusively heterosexuals. These findings will guide future research into mechanisms by which sexual orientation influences sexual wellbeing.

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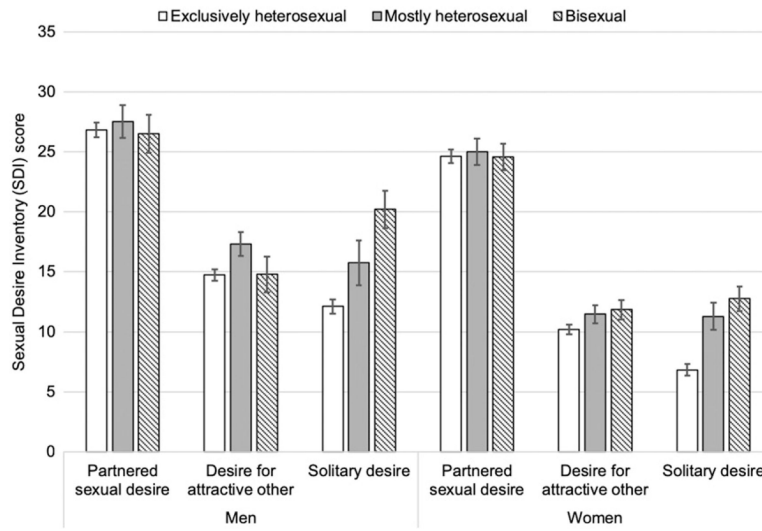
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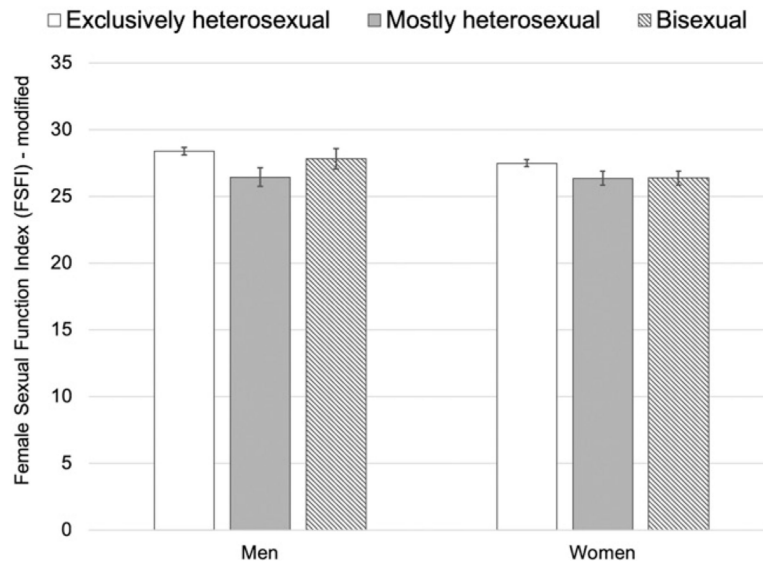
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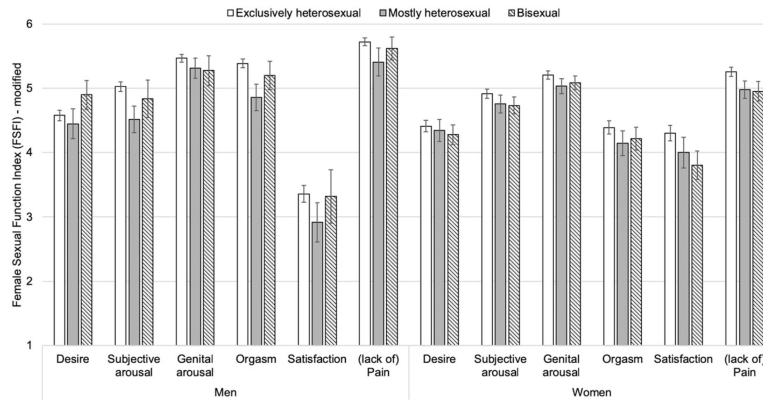


**Figure 1.** Sexual desire among exclusively heterosexual, mostly heterosexual, and bisexual men and women.

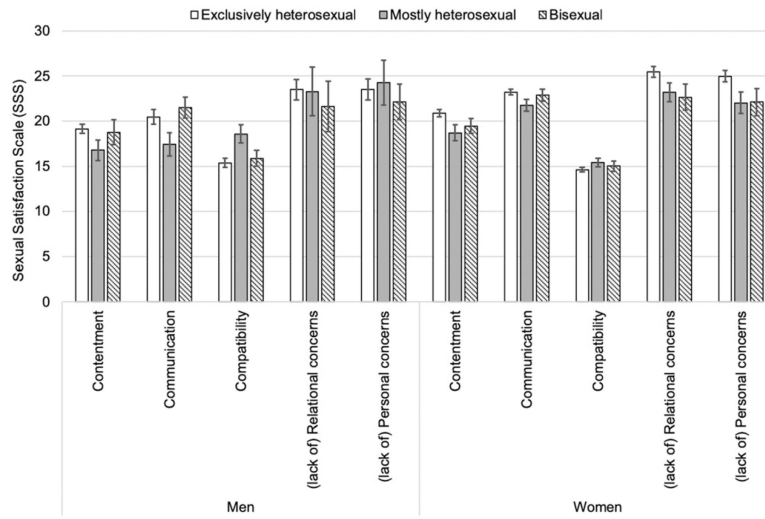


**Figure 2.** Global sexual functioning among exclusively heterosexual, mostly heterosexual, and bisexual men and women.





**Figure 3.** Domains of sexual functioning among exclusively heterosexual, mostly heterosexual, and bisexual men and women.



**Figure 4.** Sexual satisfaction among exclusively heterosexual, mostly heterosexual, and bisexual men and women.