

# Sexual fantasy and masturbation among asexual individuals

Morag A. Yule,<sup>1</sup> Lori A. Brotto,<sup>2</sup> and Boris B. Gorzalka<sup>1</sup>

<sup>1</sup>Department of Psychology, University of British Columbia, Vancouver, BC, Canada

<sup>2</sup>Department of Obstetrics and Gynaecology, University of British Columbia, Vancouver, BC, Canada

Human asexuality is defined as a lack of sexual attraction, and research suggests that it may be best conceptualized as a sexual orientation. Sexual fantasies are thought to be universally experienced and are often understood to represent true sexual desire more accurately than sexual behaviour. We investigated the relationship between asexuality, masturbation and sexual fantasy as part of a larger online study. Self-identified asexual individuals were compared to sexual individuals with and without low sexual desire. A total of 924 individuals (153 men, 533 women, and 238 individuals who did not respond to the query about sex) completed online questions asking about masturbation and sexual fantasy. Five hundred thirty four were classified in the asexual group, 87 met diagnostic criteria for hypoactive sexual desire disorder (HSDD), 78 met criteria for subthreshold HSDD without distress, and 187 were a sexual comparison group (i.e., identified as sexual, and had no reported difficulties in sexual desire or distress). Asexual individuals were significantly less likely to have masturbated in the past month and significantly more likely to report never having had a sexual fantasy. Specifically, 40% of asexual participants reported never having had a sexual fantasy compared to between 1% and 8% of participants in the sexual groups. Eleven percent of asexual individuals reported that their sexual fantasies did not involve other people, compared to 1.5% of all sexual individuals. Taken together, these findings suggest that there are notable differences in patterns of sexual fantasy between asexual individuals and sexual individuals with and without low sexual desire.

KEY WORDS: Asexuality, low sexual desire, sexual orientation, masturbation, sexual fantasy

## INTRODUCTION

Research suggests that between 0.5% (Bogaert, 2013a) and 1% (Bogaert, 2004; Poston & Baumle, 2010) of the population is asexual, defined as having a lack of sexual attraction to anyone at all. The finding that late menarche, shorter stature, and health problems are predictors of asexuality indicates that biological pathways may be involved in the development of asexuality (Bogaert, 2004). Further, research suggests that asexuality is best conceptualized as a sexual orientation, along with heterosexuality, homosexuality, and bisexuality (Brotto, Knudson, Inskip, Rhodes & Erskine, 2010; Brotto & Yule, 2011; Yule, Brotto & Gorzalka, 2014a). Critics, however, prefer to categorize asexuality as a sexual dysfunction, such as hypoactive sexual desire disorder (HSDD), instead of as a sexual orientation. There are problems, with such a categorization because asexual individuals do not experience personal distress associated with their lack of sexual attraction/desire (Brotto et al., 2010; Pagan Westfall, 2004). The Asexuality Visibility and Education Network (AVEN; asexuality.org), the largest online web-community of asexual individuals, maintains that

asexuality is not a sexual desire disorder. In fact, the conceptualization of asexuality as a sexual identity or sexual orientation is one that the asexual community strongly endorses (Brotto et al., 2010; Jay, 2008). Moreover, the current classification of mental disorders (DSM-5) includes a caveat such that if an individual's low sexual desire is accounted for by their self-identification as asexual, they should not be diagnosed with a sexual desire disorder (American Psychiatric Association, 2013).

One might assume that the low level of sexual interest experienced by asexual individuals would be associated with a complete lack of or infrequent masturbation. However, research suggests that a substantial proportion of asexual individuals masturbate at rates similar to (Brotto et al., 2010; Poston & Baumle, 2010) or less than (Bogaert, 2013a) sexual individuals. This indicates that while a significant proportion of asexual individuals appear to have a low sex drive or lack sexual interest (Bogaert, 2006), some degree of desire for masturbation remains. Brotto and colleagues (2010) speculated that masturbation among asexual individuals may be motivated by non-sexual reasons, such as tension release or as a means of getting

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**Correspondence** concerning this article should be addressed to Morag Yule, 2775 Laurel Street, 6th Floor, Department of Gynaecology, Vancouver, BC, Canada V5Z 1M9. E-mail: moragy@gmail.com

to sleep, rather than from intrinsic sexual desire or sexual excitement. Bogaert (2013b) hypothesized an identity-less masturbation pattern characterized by a need for physical release without engaging in sexual fantasy or thoughts/images of sexual partners.

It is generally accepted that sexual fantasy is a commonly experienced part of sexuality for most men and women (Barclay, 1973; Crépault & Couture, 1980; Knafo & Jaffe, 1984) and it has been hypothesized that fantasies more accurately reflect sexual desires than do sexual behaviours which may be constrained by social norms and pressures (Ellis & Symons, 1990). Ellis and Symons suggest that gender differences in sexual fantasies may be a consequence of natural selection during the course of human evolution. In sum, according to this perspective, sexual fantasy is a fundamental aspect of human sexuality, developed to facilitate sexual activity, and is thought to be ubiquitous and universally experienced (Leitenberg & Henning, 1995).

As might be expected, men tend to fantasize more frequently than women, both throughout the day, and during masturbation and partnered sexual activity (Leitenberg & Henning, 1995). One study found that heterosexual men averaged approximately 7.2 fantasies per day, compared with about 4.5 for women (Jones & Barlow, 1990). A content analysis revealed the most common sexual fantasies to focus on the behaviours that people actually engaged in (Hsu et al., 1994). There are some gender differences in content, however, with men tending to be more exploratory in their fantasies (frequently fantasizing about behaviours they had never engaged in) than women (who tend to fantasize about sexual behaviours they have experienced) (Hsu et al., 1994). Compared to sexually-healthy controls, women with low sexual desire did not masturbate less often or have fewer orgasms during masturbation (Nutter & Condrón, 1983). They did, however, fantasize less than normal controls during foreplay and intercourse, masturbation, and general daydreaming. In a separate study, Nutter and Condrón (1985) found that men with low sexual desire had less frequent sexual fantasies than a control group of men with erectile dysfunction. The fantasy content of these groups was similar (Nutter & Condrón, 1985). To more fully examine the speculative association between asexuality and sexual desire disorders, we sought to assess fantasy frequency and content among self-identified asexual individuals.

The aim of the current study was to provide a preliminary exploration of sexual fantasy frequency and content among asexual individuals compared to sexual individuals with and without low sexual desire. By increasing our understanding of sexual fantasies among asexual individuals, we hope to gain a greater understanding of motivations behind masturbation among asexual individuals as well as deepen our understanding of the (lack of) sexual attraction experienced by asexual people. We also explored group differences in masturbation patterns.

## METHOD

### Participants

A total of 1230 individuals provided consent to participate; however, only 924 participants completed data on sexual fantasy and masturbation. The age range of these 924 individuals was between 15 and 79 years (mean age 27.9, SD 10.8), and included 153 men, 533 women, and 238 individuals who did not respond to the query about sex. Among the total sample, 534 were classified in the asexual group (mean age = 24.4, SD = 8.1), 87 as HSDD (mean age = 35.2, SD = 12.4), 78 as subthreshold HSDD (mean age = 32.9, SD = 12.4) (defined below), and 187 as sexual comparison group (mean age = 30.7, SD = 11.3) (i.e., identified as sexual, and no reported difficulties in sexual desire or distress). There was a significant group difference in age,  $F(3, 887) = 51.81, p < .001$ , with asexual participants being significantly younger than the sexual groups,  $p < .001$  and the sexual comparison group being significantly younger than participants who met diagnostic criteria for HSDD,  $p < .01$ .

There were no significant differences in highest level of education achieved,  $X^2(3) = 5.65, p > .05$ , with the majority of the participants (87% asexual, 88% HSDD, 80% low desire, 89% comparison) having received at least some post-secondary education. Eighteen percent of asexual individuals, 70% of those who met diagnostic criteria for HSDD, 51% of those with low sexual desire without distress, and 66% of the sexual comparison group indicated that they were currently in a relationship, either committed or non-committed, and these proportions differed significantly  $X^2(3) = 198.7, p < .001$ .

Participants reported their ethnicity as: Caucasian/White, East Asian (Chinese, Japanese, or Korean), South Asian, African American/Canadian, First Nations/Aboriginal, Hispanic, or "other" with the majority identifying as Caucasian (Table 1).

### Measures

#### Asexual Identification

Sexual orientation was assessed with the following question: "Which option below best describes your sexual orientation?" and response options were: asexual, heterosexual, bisexual, and homosexual. Individuals endorsing "asexual" were classified in the asexual group and those endorsing any of the other three options were placed into the "sexual" group. Asexual identification was further assessed with the *Asexuality Identification Scale* (AIS, Yule, Brotto, & Gorzalka, 2014b), a 12-item self-report questionnaire that assesses the degree to which respondents agree with a series of statements from 1 (completely true) to 5 (completely false). The AIS has been found to significantly differentiate asexual from sexual individuals, and a score of 40 out of 60 was found to capture 93% of individuals who self-identified as asexual.

Table 1. Ethnicity of participants

	Asexual (n = 532)	Low Sexual Desire (n = 76)	HSDD (n = 87)	Sexual Comparison Group (n = 186)
Caucasian/White	83%	78%	80%	74%
East Asian (Chinese, Japanese, Korean)	3%	1%	7%	8%
South Asian	2%	3%	3%	6%
African American	2%	4%	1%	4%
First Nation/Aboriginal	0%	1%	2%	1%
Hispanic	2%	8%	2%	3%

### Hypoactive Sexual Desire Disorder (HSDD)

Among those participants placed into the “sexual” category, we further assessed for the likely presence of HSDD by taking each of the diagnostic criteria for HSDD according to the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revised* (APA, 2000) and asking participants to indicate whether the symptom was true or false for them. An individual who endorsed all of HSDD Criterion A “I experience persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity”; Criterion B “This deficiency/absence of sexual fantasies and desire causes me marked distress or interpersonal difficulty”; and Criterion C “This deficiency/absence of sexual fantasies and desire for sexual activity are not better accounted for by a mental health disorder (such as depression), a drug (legal or illegal), or some other medical condition” was placed into the HSDD group. An additional question asked whether the deficiency/absence of sexual fantasies and desire were lifelong (“I have always had low/no desire”) or acquired (“This low/no desire started after a period of normal sexual functioning”). If an individual endorsed Criterion A (lack of desire for sex and low/no fantasies) but not Criterion B (distress), they were placed into the subthreshold HSDD group indicating that they had low sexual desire that was non-distressing to them. Only individuals who denied all of Criteria A, B, and C were placed into the sexual comparison group.

### Masturbation and Sexual Fantasy

Participants were asked about masturbation frequency in a forced-choice format using the query “Are you sexually active with yourself (i.e., masturbation)?” Possible responses included “No” and several options ranging from “Yes (few times/year)” to “Yes (more than once/day).” Contents of sexual fantasy were assessed using the query “Which of the following best describes your sexual fantasies (either involving yourself or involving others) from puberty until now?” with possible responses including a range of options including opposite-sex and same-sex fantasies, as well as the options “I have never had a sexual fantasy” and “my sexual fantasies do not involve other people.”

### Procedure

Our university’s behavioural research ethics board approved all procedures. Data were collected between September and December 2010 as part of a larger study (data published elsewhere; Brotto, Yule & Gorzalka, 2014) via a web-based survey hosted by SurveyMonkey (Gordon, 2002). Participants were recruited through several separate and concurrent avenues, including postings on local websites (e.g., Craigslist), on the AVEN online web-community general discussion board, through online and in-clinic postings at the offices of sexual therapists and sexologists, and through our university’s human subject pool. Data were collected using questionnaires that assessed demographic variables, sexual health, sexual behaviour, sexual distress, asexual identity, mood, and social desirability. The questionnaire battery took 60 minutes to complete. No remuneration was provided.

### Statistical Analysis

Chi-square analyses were used to compare the groups on demographic variables. Because of the large number of participants who did not indicate a sex (e.g., male or female), as well as the wide range of genders that asexual individuals may identify with (e.g., androgyne, neutrois, genderqueer, pangendered, etc.) (see [asexuality.org](http://asexuality.org) for a discussion of this), we did not conduct analyses by sex or gender and instead carried out analyses on the full group of participants (independent of their reported sex or gender).

## RESULTS

### Masturbation

Fifty-six percent of asexual participants reported masturbating at least monthly, as did 75% of individuals who met diagnostic criteria for HSDD, 65% of those with non-distressing low sexual desire, and 82% of the sexual comparison group. A 2 (at least monthly masturbation, less than monthly masturbation)  $\times$  4 (asexual, subclinical HSDD, HSDD, comparison) chi-square test revealed an overall significant effect,

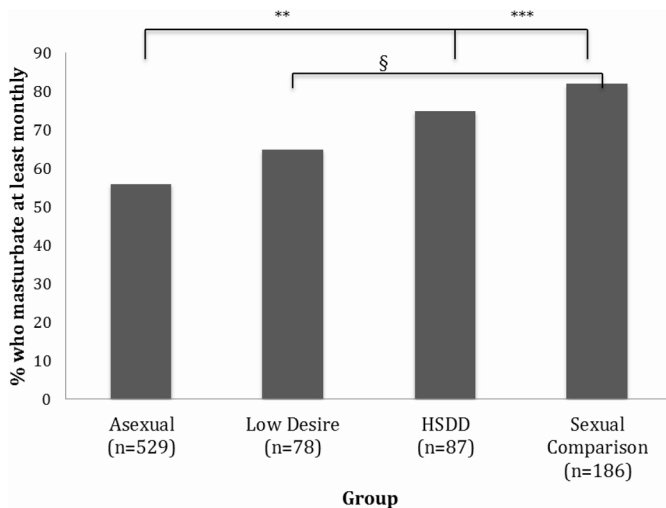


Figure 1. Percentage of participants who masturbate at least monthly

\*\* asexual individuals significantly less likely to masturbate than those with HSDD,  $p < .01$

\*\*\* asexual individuals significantly less likely to masturbate than those in the comparison group,  $p < .001$

§ low desire individuals less likely to masturbate than those in the comparison group,  $p < .01$

$X^2(3, n = 881) = 47.6, p < .001$ . A series of  $2 \times 2$  chi-square tests revealed asexual individuals to be significantly less likely to masturbate at least monthly than those who met diagnostic criteria for HSDD and the sexual comparison group,  $X^2(1, n = 717) = 11.3, p < .01$  and  $X^2(1, n = 715) = 41.8, p < .001$ , respectively. Participants reporting non-distressing low sexual desire were similarly less likely to report monthly masturbation than the sexual comparison group  $X^2(1, n = 264) = 8.9, p < .01$  (Figure 1).

### Sexual Fantasy

Forty percent of asexual individuals reported never having had a sexual fantasy, as did 8% of those who met diagnostic criteria for HSDD, 1% of those with low sexual desire without distress, and 2% of the sexual comparison group. A 2 (never had fantasy, fantasy-experienced)  $\times$  4 (asexual, subclinical HSDD, HSDD, comparison) chi-square test revealed an overall significant effect,  $X^2(3, n = 878) = 147.4, p < .001$ . A series of  $2 \times 2$  chi-square tests revealed asexual participants to be significantly less likely to have had a sexual fantasy than those who met diagnostic criteria for HSDD, those with low sexual desire without distress, and the sexual comparison group,  $X^2(1, n = 615) = 32.6, p < .001$ ,  $X^2(1, n = 606) = 44.0, p < .001$ , and  $X^2(1, n = 713) = 91.6, p < .001$ , respectively. There was no statistically significant difference between any of the other groups on this measure (Figure 2).

Eleven percent of asexual participants reported that their sexual fantasies did not involve other people, compared to none of the participants in the HSDD group, 1% of partici-

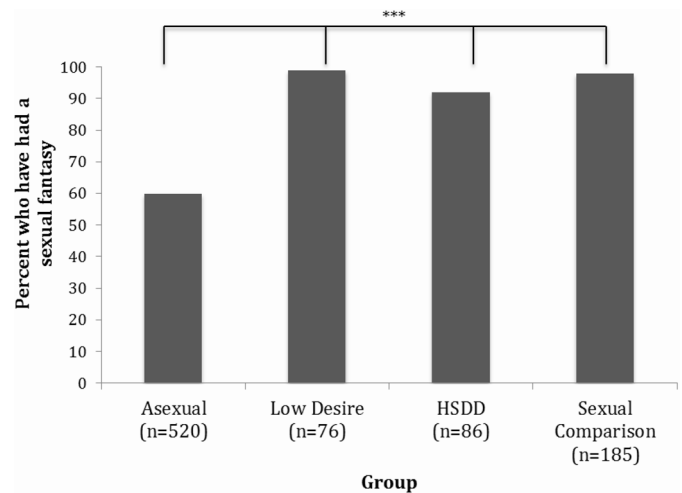


Figure 2. Percentage of participants who have had a sexual fantasy.

\*\*\* asexual individuals significantly less likely to have had a sexual fantasy than all other groups,  $p < .001$

pants in the subclinical HSDD group, and 0.5% of the sexual comparison group. A 2 (sexual fantasies include other people, sexual fantasies do not involve other people)  $\times$  4 (asexual individuals, subclinical HSDD, HSDD, comparisons) chi-square test revealed an overall significant effect,  $X^2(3, n = 878) = 36.7, p < .001$ . A series of  $2 \times 2$  chi-square tests revealed asexual participants to be significantly more likely to have fantasies that do not involve other people than those who met diagnostic criteria for HSDD, those with low sexual desire without distress, and the sexual comparison group,  $X^2(1, n = 615) = 10.8, p < .001$ ,  $X^2(1, n = 606) = 7.5, p < .01$ , and  $X^2(1, n = 713) = 20.1, p < .001$ , respectively. There was no statistically significant difference between any of the other groups on this measure (Figure 3).

These data combined indicated that 20% of asexual participants neither masturbated nor had sexual fantasies, and that 19% of asexual participants masturbated but did not report having sexual fantasies. Fifty percent of asexual participants reported both masturbating and having sexual fantasies, compared to 80%, 83%, and 92% of participants with low sexual desire, those who met diagnostic criteria for HSDD, and the sexual comparison group, respectively (Table 2).

## DISCUSSION

### Summary of Findings

This study was an exploration of masturbation and sexual fantasy among asexual individuals. We found that asexual individuals were significantly less likely to masturbate monthly than individuals who met diagnostic criteria for HSDD and the sexual comparison group. Asexual individuals were also more likely to report never having had a sexual fantasy than any of the other sexual groups. Specifically, 40% of asexual

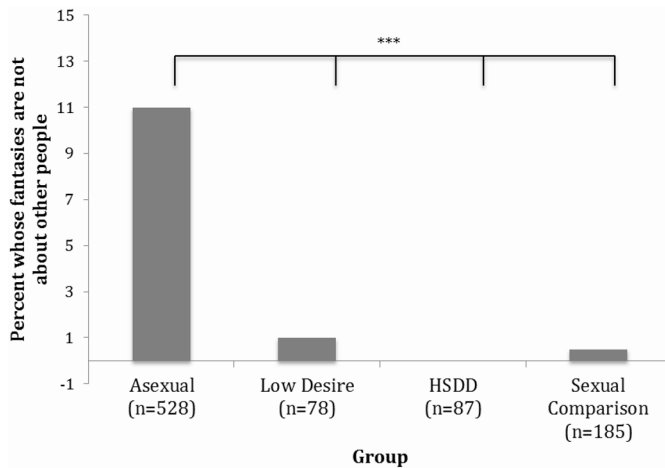


Figure 3. Percentage of participants whose fantasies do not involve other people  
 \*\*\*asexual individuals significantly more likely to have had a sexual fantasy that does not involve other people than all other groups,  $p < .001$

participants noted that they have never had a sexual fantasy compared to 7% of sexual participants. Further, some asexual individual's fantasies did not involve other people, while nearly all sexual individuals described their sexual fantasies as involving other people.

### Sexual Fantasy and Masturbation

The current results supported the recent finding (Bogaert, 2013a) of a lower rate of masturbation among asexual individuals compared to sexual individuals. While previous research based on convenience samples has found that asexual individuals masturbate at frequencies similar to their sexual counterparts (Brotto et al., 2010; Prause & Graham, 2007, a more recent study based on a large national probability sample found that 42% of asexual individuals had masturbated in the past month (Bogaert, 2013a), which was significantly lower than the percentage of sexual people in the sample (70%) and comparable to our finding that 56% of asexual participants reported masturbating at least monthly.

It has been suggested that a proportion of asexual individuals masturbate for physical pleasure or release of tension without the concurrent use of sexual fantasies or images of a sexual partner (Bogaert, 2013b; Brotto et al., 2010) and this is supported by our findings. Nineteen percent of asexual participants reported masturbating but noted that they had never had a sexual fantasy, which raises the possibility that this group may be focusing on physical sensations instead of erotic images during self-touch. Narratives by asexual individuals in a qualitative study (Brotto et al., 2010) revealed that their masturbation was motivated by physical needs (akin to an itch needing to be scratched) rather than triggered by innate sexual desire or arousal. That asexual individuals experienced an urge to masturbate but did not experience sexual attraction toward

anyone or anything has been termed 'non-directed masturbation' (Bogaert, 2013b). It seems to be the case that some asexual individuals experience sexual desire or sexual urges but do not direct this desire toward anyone or anything, and this deserves further exploration in future research.

Overall, a far greater number of asexual individuals reported never having had a sexual fantasy compared to sexual participants. Further, while participants who reported having low sexual desire reported masturbating less than the sexual comparison group, nearly all of them reported having sexual fantasies of some sort. This indicates that, even when sexual desire is low among sexual individuals, masturbation may continue; whereas this practice is overall less frequent among asexual individuals. Given that sexual fantasies are thought to be important to the development of sexual scripts and are generally understood to depict individuals' underlying attractions, that some asexual individuals report never having had a sexual fantasy supports their lack of sexual interest (Ellis & Symons, 1990). It has been previously observed that a fundamental difference between asexual individuals and those with low sexual desire is that the latter experience sexual attraction while asexual individuals do not (Brotto et al., 2010). Thus, it follows that, since fantasies are assumed to be an implicit representation of underlying sexual desire, that asexual persons should not fantasize about anything at all, and the current data suggest that this is true for at least some of our asexual participants.

Bogaert (2012) has recently identified a type of paraphilia he termed 'autochorissexuality' or identity-less sexuality, which he defines as "a disconnect between an individual's sense of self and a sexual object or target" (Bogaert, 2012, p. 1513). According to Bogaert, autochorissexual individuals view themselves as being separate from the sexual acts they are viewing or fantasizing about, thereby allowing for the disconnection between masturbation and sexual fantasies. It is possible that some asexual individuals will also be autochorissexual in that they are not sexually attracted to anyone or anything, but may nonetheless require explicit stimuli to facilitate masturbation to orgasm. Bogaert hypothesizes that the physiologic body of these individuals may have a sexual orientation (such that they have a preference for sexual stimuli involving other people or things), but that the identity of these individuals does not have a sexual orientation. Put another way, despite having sexual fantasies that involve other people or things, these individuals do not experience *subjective* sexual attraction, where the 'subjective' aspect refers to the sense of 'me' or 'I' of their identity. If this identity is not itself attracted to anyone or anything, then the individual is 'asexual' as it has been defined in the literature to date.

Chivers' (Chivers, Seto & Blanchard, 2007; Chivers, Seto, Lalumière, Laan & Grimbos, 2010) elegant series of studies reveals women's sexual arousal in response to erotic films depicting sexual activities performed by a variety of actors (including solitary masturbation, nude exercise, heterosexual sexual activity, homosexual sexual activity, and sexual activity between bonobo chimpanzees). These studies indicate that

Table 2. Patterns of masturbation and sexual fantasy

	Asexual (n = 523)	Low Sexual Desire (n = 78)	HSDD (n = 87)	Sexual Comparison Group (n = 184)
No Masturbation or Sexual Fantasy	20.2%	0%	4.6%	2.2%
Masturbation but no Sexual Fantasy	19.4%	1.3%	3.4%	0%
Sexual Fantasy but no Masturbation	10.5%	19.2%	9.2%	6.0%
Masturbation and Sexual Fantasy	49.9%	79.5%	82.8%	91.8%

heterosexual and bisexual women may become genitally aroused to films depicting sexual activity of any sort, regardless of the sexual orientation of the viewer. This has been termed ‘target-nonspecificity,’ in that women become genitally aroused to any type of sexual stimuli, regardless of their stated sexual preferences (Chivers et al., 2007). It may be that asexual individuals experience similar target non-specific genital arousal, in that their body responds to sexual stimuli or sexual fantasy, without being sexually attracted to the subject of the fantasy (Brotto & Yule, 2011).

Finally, approximately 11% of asexual individuals reported having sexual fantasies that did not involve other people, and this was far higher than the proportion of sexual individuals who reported this. The current study did not investigate the content of participants’ fantasies, however, there has been some discussion of this on online web-communities such as AVEN (Jay, 2008). According to these discussions, some asexual individuals engage in aesthetic fantasies involving images such as fairies or mountains, fetish-type fantasies, miscellaneous fantasies (such as the mating habits of beetles), or role-plays and fictional characters. Bogaert recounted an interview with one asexual individual who described his sexual fantasies such that “I almost invariably think of fictional characters. My thoughts have never involved people I know, and they never involved myself” (Bogaert, 2013b, p. 115). This glimpse into fantasies that do not involve other people underscores the wide variety of sexual fantasies that are experienced by asexual individuals, and this topic merits a much more detailed analysis in future research.

A large number of asexual participants did not indicate a sex (e.g., male or female) despite being asked to choose which sex best described them. The sample size of participants who did indicate that they were male was relatively small, which did not allow us to analyze men and women separately. We acknowledge this as a serious limitation of the study. It may well be the case that patterns of sexual fantasy differ between men and women, especially as previous writings have suggested that natural selection may have differentially influenced the development of sexual fantasy in men compared to women (Ellis & Symons, 1990). This topic deserves greater emphasis in future research. We also did not investigate the specific contents of sexual fantasies in this study, and this is the subject of a future study.

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