

Sexual Fantasy and Masturbation Among Asexual Individuals: An In-Depth Exploration

Morag A. Yule¹ · Lori A. Brotto¹ · Boris B. Gorzalka²

Received: 4 January 2016 / Revised: 8 August 2016 / Accepted: 20 September 2016 / Published online: 23 November 2016
© Springer Science+Business Media New York 2016

Abstract Human asexuality is generally defined as a lack of sexual attraction. We used online questionnaires to investigate reasons for masturbation, and explored and compared the contents of sexual fantasies of asexual individuals (identified using the Asexual Identification Scale) with those of sexual individuals. A total of 351 asexual participants (292 women, 59 men) and 388 sexual participants (221 women, 167 men) participated. Asexual women were significantly less likely to masturbate than sexual women, sexual men, and asexual men. Asexual women were less likely to report masturbating for sexual pleasure or fun than their sexual counterparts, and asexual men were less likely to report masturbating for sexual pleasure than sexual men. Both asexual women and men were significantly more likely than sexual women and men to report that they had never had a sexual fantasy. Of those who have had a sexual fantasy, asexual women and men were significantly more likely to endorse the response “my fantasies do not involve other people” compared to sexual participants, and consistently scored each sexual fantasy on a questionnaire as being less sexually exciting than did sexual participants. When using an open-ended format, asexual participants were more likely to report having fantasies about sexual activities that did not involve themselves, and were less likely to fantasize about topics such as group sex, public sex, and having an affair. Interestingly, there was a large amount of overlap between sexual fantasies of asexual and sexual participants. Notably, both asexual and sexual partici-

pants (both men and women) were equally likely to fantasize about topics such as fetishes and BDSM.

Keywords Asexuality · Sexual orientation · Masturbation · Sexual fantasy

Introduction

Although the definition of asexuality varies somewhat, the generally accepted definition is the definition forwarded by the largest online web-community of asexual individuals (Asexuality Visibility and Education Network; AVEN; asexuality.org)—a person who does not experience sexual attraction. Estimates from large-scale national probability studies of British residents suggest that between 0.5 % (Aicken, Mercer, & Cassel, 2013; Bogaert, 2013) and 1 % (Bogaert, 2004; Poston & Baumle, 2010) of the adult population is asexual. Smaller studies suggest that 2 % of high school students from New Zealand report being attracted to neither sex (Lucassen et al., 2011), and up to 3.3 % of Finnish women (Höglund, Jern, Sandnabba, & Santtila, 2014) report experiencing a lack of sexual attraction in the past year.

Sexual orientation is thought to be a largely undefined internal mechanism that directs a person’s sexual interest, with varying degrees, toward men, women, or both (LeVay & Baldwin, 2012), and asexual advocates maintain that asexuality is a unique sexual orientation, alongside heterosexuality, homosexuality, and bisexuality. It may be more accurate to conceptualize asexuality as a lack of sexual orientation, in that this internal mechanism is not directed toward anyone or anything, or might not exist at all. It may also be that the same processes that guide the direction of sexual attraction to men, women, or both might be involved in the development of a lack of sexual attraction. By investigating markers previously associated with sexual orientation development, such as age of menstruation, shorter stature, and increased number of health

✉ Morag A. Yule
moragy@gmail.com

¹ Department of Obstetrics and Gynaecology, University of British Columbia, 2775 Laurel Street, 6th Floor, Vancouver, BC V5Z 1M9, Canada

² Department of Psychology, University of British Columbia, Vancouver, BC, Canada

problems (Bogaert, 2004, 2013), and potential biological markers of prenatal environment such as handedness and number of older siblings (Yule, Brotto, & Gorzalka, 2014a), researchers have provided evidence that the same processes that influence these markers of sexual orientation may be associated with the development of the lack of sexual attraction characteristic of asexuality (Bogaert, 2006; Bogaert, 2012a; Brotto, Knudson, Inskip, Rhodes, & Erskine, 2010; Brotto & Yule, 2011; Yule et al., 2014a). For these reasons, we argue that asexuality be conceptualized as a unique sexual orientation rather than the absence of one (see Brotto & Yule, 2016 for a more in-depth exploration of this issue).

One characteristic that has both shed light on the correlates of asexuality and raised doubt about the truly asexual nature of asexuality is masturbation. There is conflicting evidence as to the frequency of masturbation among asexual individuals. Two studies provide evidence that asexual women and men masturbate at frequencies similar to sexual women and men (Brotto et al., 2010; Poston & Baumle, 2010). Specifically, Brotto et al. (2010) found that 80 % of asexual men and 73 % of asexual women had engaged in masturbation, and these frequencies were comparable to that reported in a British national probability sample of sexual individuals (Gerressu, Mercer, Graham, Willings, & Johnson, 2008). Other findings suggest that asexual individuals masturbate at a lower frequency than their sexual counterparts (Bogaert, 2013; Yule, Brotto, & Gorzalka, 2014b), which is more aligned with what we might predict. Despite these inconsistent findings, the observation that a considerable number of asexual individuals do masturbate is somewhat paradoxical, as the lack of sexual attraction that is fundamental to an asexual identification seems to be intuitively in conflict with their demonstrated masturbatory behavior.

Early research conducted in the 1950s found that nearly all men and 60 % of women surveyed in the general population reported that they had masturbated at least once in their life (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953), and this has been confirmed by more recent, arguably better-sampled, studies (Laumann, Gagnon, Michael, & Michaels, 1994) which suggested that nearly all men and approximately 75 % of women had masturbated. The most common cited motivations for masturbation were to seek pleasurable sensations or physical release of sexual tension, while additional reasons such as body exploration, to get to sleep, or to reduce boredom or loneliness were also common (Carvalho & Leal, 2013; Clifford, 1978). Non-sexual motivations for masturbation are reflected in the comments of two (presumably sexual) female participants in an early study on masturbation (Clifford, 1978). One participant reported that “masturbation is not an emotional arousal, when I cross my legs and do that, and that thing happens. I feel very asexual most of the time, except when I’m with someone I really like.” Another participant noted “To me, masturbation is not that sexual. To me, it doesn’t have that much connection to intercourse” (Clifford, 1978, p. 570).

The motivation for masturbation among asexual individuals is not entirely clear. Brotto et al. (2010), in a mixed-methods

study, hypothesized that masturbation among asexual individuals might arise for non-sexual reasons, such as release of tension or getting to sleep, while Bogaert (2012b) introduced the idea of an identity-less masturbation pattern, in which individuals experience a sense of detachment between their sense of self and a sexual object or target, which allows for physical release without engaging with sexual partners even in sexual fantasy.

Sexual fantasies are generally defined as any thought, mental image, or imagined scenario that is experienced as erotic or sexually arousing to the individual (Leitenberg & Henning, 1995). It has been largely accepted that sexual fantasy is a common experience for most men and women (Barclay, 1973; Crepault & Coutoure, 1980; Knafo & Jaffe, 1984). Leitenberg and Henning’s (1995) review of the sexual fantasy literature suggests that between 77 and 100 % of women and men report ever having had a sexual fantasy when not engaged in sexual activity, and also provide evidence that approximately 86 % of men and 69 % of women report fantasizing during masturbation. Sexual fantasies, it has been argued, are very important to revealing an individual’s sexual orientation and sexual attraction, even more than are sexual behaviors or sexual identity. This is because behaviors are constrained by social norms and by the (potential or desired) sexual partner, and thus are necessarily more inhibited than what can be imagined (Ellis & Symons, 1990). The received view is that sexual fantasies are not subject to such compromises and reflect the desires or wants of the fantasizer (Ellis & Symons, 1990; Leitenberg & Henning, 1995). However, there is evidence that sexual fantasies based on themes that the individual would not wish to experience in real life, such as fantasies of erotic reluctance or “rape fantasies” (Bivona, Critelli, & Clark, 2012; Clifford, 1978; Critelli & Bivona, 2008), are common among women (as high as 57 %), which is in direct contrast to the widely accepted view of sexual fantasy as a reflection of one’s underlying desire. It may be that there is a sex difference in this regard such that sexual fantasies may be a clearer indicator of men’s underlying desires.

Previous research comparing self-identified asexual individuals to two groups of sexual individuals, those who did and those who did not meet diagnostic criteria for hypoactive sexual desire disorder (American Psychiatric Association, 2000), found that asexual participants were significantly more likely to report never having had a sexual fantasy, with 40 % of asexual participants reporting no sexual fantasy compared to 1 and 8 % of participants in the sexual groups, respectively (Yule et al., 2014b). Interestingly, of asexual individuals who have had a sexual fantasy, 11 % reported that these fantasies were not about other people, compared to 1.5 % of sexual individuals. This study suggested that there are notable differences in patterns of sexual fantasy between asexual individuals and sexual individuals with and without low sexual desire, with asexual individuals more likely not to have had a human protagonist featured in the fantasy. However, it did not provide any clarity into what, exactly, asexual individuals fantasize about.

The current study expands on previous research into sexual fantasies among asexual individuals. In addition to investigating reasons for masturbation, this study aimed to explore and compare the contents of sexual fantasies among asexual individuals with sexual fantasies of sexual individuals. We hope that exploring the contents of asexual individuals' fantasies in more depth will shed light on the true nature of asexuality and may contribute toward a larger effort at considering how it best be classified.

Method

Participants

Those who took part in the study responded to a recruitment advertisement asking for participants of “all sexual orientations (asexual, heterosexual, homosexual, or bisexual)” to complete an online survey. It was explicit in the advertisement that the questionnaires would ask about sexual fantasy, masturbation, and sexual behaviors. A total of 1285 individuals provided consent to participate; however, 490 of these did not complete the majority of the items (i.e., they read the consent form and indicated that they consented to the study, but did not complete any items, or they provided some data, but discontinued the survey at some point), leaving 795 participants with usable data. Data from participants under 19 years old were excluded ($n = 56$) leaving 739 participants. We decided to exclude data from younger participants as there is potentially a larger amount of flux in sexual behavior/identities among adolescents. Analyses done when data from the younger participants were included did not appreciably change the findings. The age range of these 739 participants was between 19 and 70 years ($M, 30.83$; $SD, 10.81$).

In response to the query: “The following pages are sex specific. We realize that the following categories do not accurately describe some individuals. However, for the purposes of this study we ask that you please choose the option below that best describes you in order to be directed to the most appropriate questionnaires: Which of the following best describes you?”, 226 indicated that they were male, and 513 indicated that they were female.

Asexuality was assessed with the Asexuality Identification Scale (AIS; Yule, Brotto, & Gorzalka, 2015), a 12-item reliable and valid self-report questionnaire that assesses the degree to which respondents agree with a series of statements. The AIS has been found to significantly differentiate asexual from sexual individuals, and a score of 40 out of 60 was previously found to capture 93 % of individuals who self-identified as asexual (Yule et al., 2015). This is useful for identifying individuals who may lack sexual attraction, but who have not heard the term “asexual” or who might identify as “sexual” based on their experience of romantic attraction, rather than of sexual attraction (see Yule et al., 2015 for a more detailed discussion). Any participant who

scored at or above 40 on the AIS was placed into the “AIS >40/asexual” group, and those scoring below 40 were placed into the sexual group. Among the total sample, 388 (52.5 %) were classified in the sexual group ($M, 34.3$; $SD, 11.2$), and 351 (47.5 %) were classified in the AIS >40/asexual group ($M, 25.9$; $SD, 8.43$), with the sexual group being significantly older than the AIS >40/asexual group, $t(713.8) = 11.52, p < .001$. The AIS >40/asexual group will be hereafter referred to as the “asexual” sample. There were 292 asexual women, 221 sexual women, 59 asexual men, and 167 sexual men in the final group.

There were no significant differences between asexual and sexual individuals in highest level of education achieved, $\chi^2(1) = 5.60, p > .05$, with the majority of the participants (85 % asexual, 88 % sexual) having received at least some post-secondary education. Twenty percent of asexual individuals and 64 % of sexual participants indicated that they were currently in a relationship, either committed or non-committed, and these proportions differed significantly $\chi^2(1) = 170.8, p < .001$.

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

Participants were queried about masturbation frequency, motivations for masturbation, and whether or not they had sexual fantasies at the beginning of the questionnaire battery.

Sexual Fantasy Questionnaire (SFQ)

The SFQ is a 62-item questionnaire developed by Bogaert, Visser, and Pozzebon (2015) in order to assess a level of sexual interest in a number of sexual fantasies, including group sex, voyeurism, and BDSM-style themes. Participants were instructed to evaluate how exciting they would find each of the 62 sexual fantasies listed from 1 (*not at all exciting*) to 7 (*extremely exciting*).

Open-Ended Exploration of Sexual Fantasies

Following completion of the SFQ, participants were provided with the instruction: “In the space below, please provide a description of any sexual fantasies that you have regularly that were not included in the previous list. You can provide as much or as little detail as you wish. You may include your feelings, desire, and activities at each stage of the fantasy—that is, what events and feelings led up to the encounter and what events and feelings occurred during the encounter? Please include any and all information that is important in making your fantasy arousing. You may describe up to four sexual fantasies.” This instruction is similar to that used in previous research (Bogaert et al., 2015).

Table 1 Ethnicity of participants

	Asexual		Sexual	
	Female (<i>n</i> = 290) (%)	Male (<i>n</i> = 59) (%)	Female (<i>n</i> = 221) (%)	Male (<i>n</i> = 166) (%)
Caucasian/White	81	79	80	81
East Asian (Chinese, Japanese, Korean)	3	2	5	2
South Asian	0	0	3	9
African American	3	0	4	1
First Nation/Aboriginal	0	0	1	1
Hispanic	4	9	1	5
Other	9	10	6	1

Procedure

The University of British Columbia Behavioural Research Ethics Board approved all procedures. Data were collected between February and November 2015 via a web-based survey hosted by SurveyMonkey (Gordon, 2002). Participants were recruited through several separate and concurrent avenues, including postings on local Web sites (e.g., Craigslist, Mechanical Turk), on the AVEN online web-community general discussion board (www.asexuality.org), and through online and in-clinic postings at the offices of sexual therapists. Data were collected using questionnaires that assessed demographic variables, sexual health, sexual behavior, sexual distress, asexual identity, mood, and social desirability. The questionnaire battery took 60 min to complete. Participants were entered into a draw for one of two \$50 gift certificates.

Statistical Analyses

Chi-square analyses were used to compare the groups (asexual vs. sexual) on demographic variables, and also to compare asexual participants to sexual participants on measures of sexual fantasy. A univariate analysis of variance (ANOVA) was used to compare the groups on SFQ scores. Fantasy content was coded based on commonly used thematic analysis protocols (e.g., Lodi-Smith, Geise, Roberts, & Robins, 2009; Visser, DeBow, Pozzebon, Bogaert, & Book, 2014). Neither coder was blind to the study hypothesis, but both coded the fantasies without knowledge of the participants' demographic information (including sexual vs. asexual group or gender) or scores on other variables. Upon first looking at the data, each of the coders identified a number of themes (*n* = 75 and *n* = 102). Upon discussion, both coders agreed that there was some overlap between themes (i.e., specific types of fetish [e.g., feet, breeder, feeder, vore]), BDSM (Bondage and Discipline [BD], Dominance and Submission [DS] and Sadism and Masochism [SM]) themes (e.g., being restrained, humiliation), or feeling wanted in some way (e.g., feeling attractive, feeling desired), and these were grouped together into overarching themes (i.e., “fetish,” “BDSM,” and “object-desire self-conscious” [Bogaert & Brotto, 2014]). We included a wide range of themes under the BDSM category, as there is some evidence for

grouping together a wide range of items that fall under BDSM. One recent study showed that a number of sexual behaviors and fantasies such as spanking, humiliation, and inflicting pain are all subsumed under the overarching category of BDSM (Dunkley & Dang, 2016).

Once these items were grouped together, both coders agreed upon a more parsimonious list of 49 themes (see Tables 6, 7). Each coder then independently coded each fantasy into one or more themes (resulting in a minimum of one theme and maximum of 11 themes per fantasy) and inter-rater reliability (as assessed using intra-class correlation coefficients, ICC) was high (ICC range = .86 to .98). Comparative analyses were then carried out on these data.

Results

Masturbation

Asexual women were significantly less likely to masturbate at least monthly than sexual women $\chi^2(1) = 40.96, p < .001$, sexual men, $\chi^2(1) = 40.06, p < .001$, as well as asexual men $\chi^2(1) = 10.68, p < .001$. There were no significant differences between asexual men and sexual men in masturbation frequency (Fig. 1). Among asexual individuals, asexual women who reported that they did not masturbate scored significantly higher on the AIS than did asexual women who reported that they masturbated at least monthly, $t(290) = 3.61, p < .001$, Cohen's $d = 0.47$. The AIS scores of asexual men who did and did not masturbate did not significantly differ.

Asexual women were much less likely than their sexual counterparts to report masturbating for sexual pleasure or for fun, and asexual men were less likely to report masturbating for sexual pleasure than were sexual men. Asexual women were more likely to endorse the statement “I feel that I have to” masturbate, and were less likely to masturbate to “relieve tension” than were sexual women. Asexual men were similarly likely to sexual men to report masturbating to relieve tension and because they felt they had to. Asexual men, but not women, were much more likely to state that they had “other” reasons for masturbating than their sexual counterparts. “Other” reasons for masturbation that asexual men

provided included: “procrasturbation” (i.e., masturbating as a form of procrastination), being bored, wanting to fall asleep, relaxation, and functional beliefs about masturbation (such as “apparently it works against epididymitis”), whereas sexual men (but not asexual men) cited reasons such as: having an uninterested/unavailable partner, loneliness, stress relief, and “needing to practice” (Table 2).

Sexual Fantasy

Asexual men were significantly more likely than sexual men to report having never had a sexual fantasy $\chi^2(1) = 31.56, p < .001$. Similarly, asexual women were significantly more likely than sexual women to report never having had a sexual fantasy $\chi^2(1) = 77.97, p < .001$. Asexual women were significantly more likely to have never had a sexual fantasy than asexual men $\chi^2(1) = 4.11, p < .05$. There was no significant difference between sexual women and sexual men on this variable (Fig. 2). Among asexual individuals, asexual women who reported that they had never had a sexual fantasy scored significantly higher on the AIS than did asexual women who reported that they had had a sexual fantasy, $t(222.18) = 6.41, p < .001$, Cohen’s $d = 0.81$. Asexual men who had never had a sexual fantasy similarly scored higher on the AIS than asexual men who had had a sexual fantasy, although this difference approached rather than achieved statistical significance despite a relatively large effect size, $t(50) = 2.00, p = .051$, Cohen’s $d = 0.69$.

Of those participants who have had a sexual fantasy, 12 % of asexual men and 14 % of asexual women endorsed the response “my fantasies do not involve other people” compared to 0 % of sexual men and 0.5 % of sexual women, $\chi^2(1) = 20.25, p < .001$ and $\chi^2(1) = 37.45, p < .001$, respectively.

A 2 (Sex) \times 2 (Group: Asexual vs. Sexual) ANOVA was conducted for mean SFQ scores. There was a significant Sex \times Group interaction, $F(1, 588) = 11.89, p < .001, \eta^2 = .007$ as well as a significant main effect for Sex, $F(1, 588) = 8.62, p < .01, \eta^2 = .005$, and for Group, $F(1, 588) = 721.62, p < .001, \eta^2 = .46$, suggesting that, overall, sexual participants found the sexual fantasies listed on

the SFQ much more sexually exciting than did the asexual participants. Sexual participants (both women and men) demonstrated higher scores than asexual participants on each of the SFQ items, with a significance of $p < .001$. The effect size of these differences was most frequently very large (defined to be a Cohen’s d score of >1.0 for this study). Overall, asexual women and men scored higher on the three items related to romantic or emotional content relative to the other SFQ items. For asexual women, the two items that mention love without sex (items 9 and 40) had relatively small effect sizes, suggesting that asexual women’s scores were more similar to sexual women’s scores on these items. Overall, asexual individuals, both men and women, were significantly more likely to score the items on the SFQ as “not exciting” (i.e., from 1 = “not at all exciting” to 3 on the seven point Likert scale), whereas sexual participants were significantly more likely to score the items on the SFQ in the “exciting” range of the Likert scale (i.e., from 5 to 7 = “extremely exciting”) (Tables 3, 4).

These data combined indicated that sexual women and men were significantly more likely to engage in sexual fantasy than their asexual counterparts. Further, sexual women were more likely to engage in masturbation than their asexual counterparts. Asexual women and men were significantly more likely to have neither sexual fantasy nor masturbation, or to masturbate but to have no sexual fantasy, than were sexual women and men. Asexual women were significantly more likely to engage in sexual fantasy without masturbation than were sexual women, but this was not the case for asexual and sexual men (Table 5).

AIS scores were compared for asexual participants only on measures of frequency of sexual fantasy and masturbation. There were no significant differences in AIS scores between asexual men who engaged in neither masturbation nor sexual fantasy, masturbated but reported no sexual fantasy, reported sexual fantasy but no masturbation, or engaged in both masturbation and sexual fantasy $F(3, 48) = 1.68, p > .05$. Asexual women who did not masturbate had significantly higher AIS scores than those who did, $t(290) = 3.61, p < .001$, Cohen’s $d = 0.47$. Asexual women who did not engage in sexual fantasy also had higher AIS scores than those who did, $t(253) = 6.02, p < .001$, Cohen’s $d = 0.81$. There were significant differences, $F(3, 251) = 13.48, p < .001$, in AIS scores of asexual women, and a post hoc Tukey’s multiple comparison test revealed that asexual women who reported engaging in both sexual fantasy and masturbation had significantly lower AIS scores than women who reported neither masturbating nor sexual fantasy, $p < .001$, and those who reported masturbating but denied engaging in sexual fantasy, $p < .05$.

Based on responses to the open-ended exploration of sexual fantasies, there were a number of similarities and differences in the themes of sexual fantasies of asexual women and men compared to sexual women and men (Tables 6, 7). Both asexual men and women were significantly more likely to report having sexual fantasies that do not involve themselves. Further, asexual women were significantly more likely to report having sexual fantasies that involved fictional human characters. Both asexual women

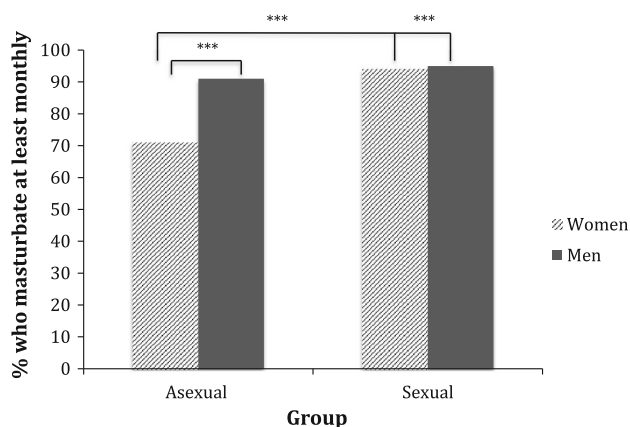


Fig. 1 Percentage of participants who masturbate at least monthly. ***Asexual women significantly less likely to masturbate than sexual participants and asexual men, $p < .001$

Table 2 Motives for masturbation

	Women		χ^2	<i>p</i>	Men		χ^2	<i>p</i>
	Asexual (<i>n</i> = 292) (%)	Sexual (<i>n</i> = 221) (%)			Asexual (<i>n</i> = 59) (%)	Sexual (<i>n</i> = 167) (%)		
Sexual pleasure	30	80	127.28	<.001	27	84	65.59	<.001
Relieve tension	48	57	4.14	<.05	52	64	2.44	>.05
For fun	20	46	40.51	<.001	32	46	3.45	>.05
I feel that I have to	13	5	4.72	<.05	25	15	3.27	>.05
Other	15	11	1.94	>.05	24	8	10.54	<.01

Participants were encouraged to select more than one reason for masturbation, and thus the numbers above may add up to greater than 100 %

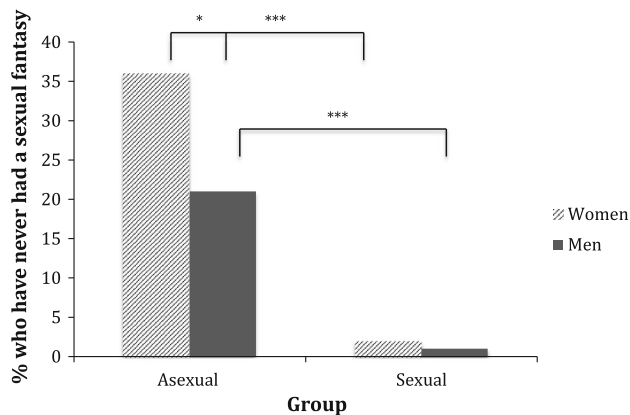


Fig. 2 Percentage of participants who have never had a sexual fantasy. ***Asexual women and men significantly more likely to have never had a sexual fantasy than sexual women and men, $p < .001$. *Asexual women significantly more likely to have never had a sexual fantasy than asexual men, $p < .05$

and men were less likely to fantasize about group sex compared to their sexual counterparts. Asexual women were also less likely than sexual women to fantasize about a number of topics such as public sex.

Of note, asexual men were significantly more likely than sexual men to fantasize about “object-desire self-consciousness/teasing.” Asexual women were significantly more likely than sexual women to report engaging in fantasies that focused on emotions or on romantic, non-sexual, intimacy such as cuddling. These, as well as other non-sexual fantasy content such as “being cared for/managed/cared for” “sensory,” “monogamy or poly,” and “involving commitment or relationship,” have been separated from sexual fantasies by presenting them at the ends of Tables 6 and 7 in order to create a clear distinction between sexual and non-sexual content.

Interestingly, there was a large amount of overlap between asexual and sexual participants on most of the sexual fantasy themes identified. Specifically, asexual women and asexual men, respectively, were just as likely to fantasize about 77 and 85 % of the sexual topics that sexual women and men described. For example, both asexual women and men were just as likely to fantasize about BDSM or fetish themes than their sexual counterparts. Reporting

of fantasy themes such as erotic reluctance (e.g., “rape fantasies”) or fantasies involving voyeurism was also similar in frequency between asexual and sexual groups.

For example, one asexual participant noted:

I do have sexual fantasies but most of the time they do not involve me or any real person. I sexually fantasize about fictional male couples and their romantic and sexual relationships and events. They are all monogamous relationships where they are faithful to one another (no affairs). With fictional male couples, my sexual fantasies can involve many and varying sexual preferences and fetishes. Please do know that these are my specific sexual fantasies and they do not apply to others’ sexual fantasies (female, 19 years old).

Another participant described their fantasies as follows:

I don’t put myself into my fantasies. That is thoroughly unappealing to me. Instead, I imagine other people in sexual situations, and focus on their thoughts and feelings for a sort of vicarious arousal. I don’t want to do anything sexual with any of the people I imagine, and by themselves, they don’t turn me on. I think it’s because I’m not capable of feeling sexual attraction or lust, so I mentally conjure up people who are and empathize with them (though my ideas of how they experience lust are, since I’m asexual, awfully vague in some ways and probably way off base in others) (female, 32 years old)

Another asexual participant reported:

I enjoy watching other people enjoy their sexuality. I like the role of being strictly a voyeur but I love being the cause of them enjoying their sexuality. Although I am very excited by these situations I wouldn’t call it sexual excitement. Although my body is clearly aroused by it, I have no desire to attend to that arousal. I very much enjoy being the one who does not physically engage in sexual behavior while being the one who provokes it in others. I like to see my romantic partner endure unpleasant situations that I’ve created because I feel that his willingness to sacrifice his comfort is an expression of his devotion to me. I like to see a partner insensible with excitement or pleasure because of my interaction with them. This makes me feel very emotionally enticed and engaged but sexually I feel disengaged and disinterested even though my body is aroused (female, 35 years old).

Both asexual women and men were significantly more likely to report engaging in fantasies that did not include any sexual or romantic content. One example of such a fantasy was described as

Table 3 Sexual fantasy questionnaire (SFQ) scores for asexual and sexual women

SFQ item #	Item	Score mean (SD)		Effect size (Cohen's <i>d</i>)
		Asexual women	Sexual women	
9	A special person is devoted to me and showers me with love and attention	3.24 (2.19)	5.07 (1.91)	0.89
54	Feeling affection and emotional connection while having sex	2.82 (2.12)	5.78 (1.59)	1.58
40	I am devoted to a special man or woman and shower him or her with love and devotion	2.66 (2.09)	4.68 (2.01)	0.96
2	My partner telling me how good-looking and sexy I am	2.40 (1.67)	5.18 (1.76)	1.62
13	Being passive and submissive to someone who wants my body	1.91 (1.64)	4.50 (2.17)	1.35
4	Imagining that I observe myself or others having sex	1.91 (1.46)	4.16 (1.96)	1.3
19	My partner showing me how much s/he desires my body	1.89 (1.52)	5.53 (1.68)	2.27
11	My partner tells me what s/he wants me to do to him or her during sex	1.80 (1.40)	4.95 (1.90)	1.89
7	Being forced to surrender to someone who is overcome with lust for me	1.73 (1.48)	3.95 (2.43)	1.1
43	My partner tells me what s/he wants to do to me during sex	1.70 (1.39)	5.04 (1.94)	1.98
28	Exerting dominance and control over a partner who is highly attracted to me	1.69 (1.49)	3.08 (2.11)	0.76
62	Pretending that I am doing something wicked or forbidden	1.68 (1.43)	4.10 (2.19)	1.31
52	Having sex with my current partner	1.68 (1.40)	5.30 (1.95)	2.13
31	Being passive and submissive to someone whose body I want	1.67 (1.40)	3.97 (2.29)	1.21
50	A man or woman sweeps me off my feet and teaches me all about romance and sex	1.66 (1.41)	3.79 (2.14)	1.18
55	Exerting dominance and control over a partner who finds me very desirable	1.64 (1.42)	3.16 (2.17)	0.83
58	Telling my partner how good-looking and sexy s/he is	1.63 (1.29)	4.57 (1.96)	1.77
22	Being overpowered or forced to surrender because I am so irresistible	1.62 (1.42)	3.56 (2.43)	0.97
38	Having sex in a different place like a car, hotel, beach, woods	1.62 (1.21)	4.91 (1.90)	2.07
53	Watching my partner undress	1.59 (1.23)	4.69 (1.99)	1.87
57	Taking the initiative and dominant role while having sex	1.58 (1.34)	3.67 (2.07)	1.2
23	Dressing in sexy, transparent underwear for my partner	1.58 (1.32)	4.16 (2.14)	1.45
15	Exerting dominance and control over a partner who I am highly sexually attracted to	1.57 (1.35)	3.40 (2.07)	1.05
39	Exerting dominance and control over a very desirable partner	1.57 (1.34)	3.04 (2.09)	0.84
16	Showing off my body to tease and arouse onlookers who lust after me	1.57 (1.29)	3.35 (2.13)	1.01
35	Undressing for my partner	1.57 (1.21)	4.17 (2.00)	1.57
48	Teasing a man or woman (or men or women) until s/he is consumed with sexual desire for me	1.56 (1.38)	4.15 (2.17)	1.42
3	Having sex with two or more very attractive partners at the same time	1.55 (1.22)	4.13 (2.27)	1.42
33	Being forced to surrender to someone while I'm overcome with lust for him or her	1.51 (1.31)	3.82 (2.38)	1.2
6	I imagine that an older, experienced partner is attracted to me because of my youthful appearance	1.51 (1.25)	3.45 (2.13)	1.11
56	Having sex without making eye contact	1.49 (1.18)	2.57 (1.89)	0.69
24	Having sex with two or more partners, who are very attracted to me, at the same time	1.46 (1.14)	4.03 (2.30)	1.42
60	Being forced to sexually pleasure attractive men or women	1.41 (1.17)	2.83 (2.25)	0.79
26	Talking dirty to my partner	1.41 (1.07)	4.22 (2.12)	1.67
1	Having sex with a very attractive stranger	1.41 (1.02)	4.40 (2.07)	1.83
37	Being an exotic dancer	1.40 (1.13)	2.31 (1.82)	0.6
46	Showing my partner how much I desire his or her body	1.40 (1.01)	4.71 (1.92)	2.16
12	Lusting after a hot guy or girl who is teasing and arousing me with his or her body	1.39 (1.05)	4.22 (2.01)	1.76
61	Imagining my partner in sexy underwear	1.38 (1.05)	3.50 (2.18)	1.24

Table 3 continued

SFQ item #	Item	Score mean (SD)		Effect size (Cohen's <i>d</i>)
		Asexual women	Sexual women	
44	I imagine that I am attracted to a sexual partner because of his or her greater age and experience	1.37 (1.04)	3.12 (2.09)	1.06
5	Having casual sex with a person who I just met and who finds me irresistible	1.36 (1.00)	4.01 (2.17)	1.57
29	Teasing a man or woman (or men or women) until I can no longer contain my sexual desire for him/her	1.35 (1.10)	4.07 (2.17)	1.58
51	Having anal intercourse	1.34 (1.00)	3.10 (2.22)	1.02
10	Overpowering or forcing another to surrender because he or she is so irresistible	1.34 (.98)	2.59 (1.96)	0.81
27	Revealing my body to an attractive stranger	1.33 (1.02)	3.25 (2.10)	1.16
8	Dating an exotic dancer	1.33 (1.00)	2.13 (1.58)	0.61
49	Having an attractive stranger reveal his or her body to me	1.32 (1.02)	3.41 (2.10)	1.27
45	Men or women talk about how sexy and irresistible I am before forcing me to sexually pleasure them	1.31 (1.01)	3.02 (2.23)	0.99
21	Having sex with a stranger who is very attracted to me	1.31 (.91)	3.73 (2.12)	1.48
20	I sweep a man or woman off his or her feet and teach them all about romance and sex	1.31 (.88)	2.92 (1.91)	1.08
36	Using force or humiliating a person who I desire	1.29 (1.02)	1.72 (1.43)	0.35
42	Receiving sexual pleasure from many people	1.29 (.88)	3.45 (2.32)	1.23
17	Using force or humiliating a person who desires me	1.28 (.97)	1.69 (1.37)	0.34
59	Reliving a previous sexual experience	1.27 (.83)	4.03 (2.18)	1.67
30	Being the center of attention while having group sex	1.26 (.96)	2.85 (2.12)	0.97
34	Being a promiscuous person who attracts the attention of many partners with my irresistibility	1.25 (.93)	2.90 (2.11)	1.01
18	Pleasuring many other people while having group sex	1.25 (.91)	2.80 (2.06)	0.97
25	Giving sexual pleasure to many people	1.22 (.84)	2.89 (2.09)	1.05
47	Having sex with many men or women, all of whom are very attractive	1.21 (.84)	3.01 (2.13)	1.11
32	Having sex with many men or women, all of them overcome with lust for my body	1.21 (.78)	2.90 (2.15)	1.04
14	Being a promiscuous person who has many irresistible sexual partners	1.21 (.74)	3.00 (2.04)	1.17
41	Having casual sex with a person I just met and find irresistible	1.21 (.72)	3.66 (2.14)	1.53

Items are sorted by asexual women's SFQ scores, from highest to lowest

All item scores differ between asexual and sexual women at a statistical significance of $p < .001$

“being able to stop time and mess with people and things without their awareness. Often not sexual” (female, 27 years old).

Another asexual participant described a fantasy that did not involve sexual or romantic content:

This one is a bit, like, diffuse or inchoate, but magic and adventure. Imagining myself in a situation where the laws of nature are suspended, or I get a glimpse of a world that underlies our own, or I am in a desert hut with a girl from an unfamiliar tribe. Or even just an old country house with the wind whistling. Not only xenophilia, but just the idea that we can be different and feel different things and learn and have experiences we never imagined. An art studio on the lower east side in 1976. A girl wizard. A blood moon. Does this make sense? (male, 34 years old)

Discussion

Summary of Findings

This study was an in-depth exploration of masturbation and sexual fantasy among asexual individuals. We found that asexual women were significantly less likely to masturbate at least monthly than sexual women and asexual men. Asexual women were less likely to report masturbating for sexual pleasure or fun than their sexual counterparts, and asexual men were less likely to report masturbating for sexual pleasure than sexual men. Asexual women and men were significantly more likely to report that they had never had a sexual fantasy than sexual women and men, and of

Table 4 Sexual fantasy questionnaire (SFQ) scores for asexual and sexual men

SFQ item #	Item	Score mean (SD)		Effect size (Cohen's <i>d</i>)
		Asexual men	Sexual men	
9	A special person is devoted to me and showers me with love and attention	2.80 (2.02)	5.07 (1.67)	1.61
54	Feeling affection and emotional connection while having sex	2.52 (1.90)	5.60 (1.58)	1.76
40	I am devoted to a special man or woman and shower him or her with love and devotion	2.47 (1.95)	4.90 (1.83)	1.29
4	Imagining that I observe myself or others having sex	2.00 (1.53)	4.59 (1.84)	1.53
2	My partner telling me how good-looking and sexy I am	1.93 (1.32)	5.14 (1.56)	2.21
13	Being passive and submissive to someone who wants my body	1.92 (1.45)	4.23 (2.09)	1.28
19	My partner showing me how much s/he desires my body	1.90 (1.32)	5.51 (1.53)	2.53
43	My partner tells me what s/he wants to do to me during sex	1.88 (1.45)	5.29 (1.72)	2.79
11	My partner tells me what s/he wants me to do to him or her during sex	1.88 (1.23)	5.50 (1.51)	2.63
53	Watching my partner undress	1.81 (1.36)	5.56 (1.40)	2.72
61	Imagining my partner in sexy underwear	1.71 (1.25)	5.11 (1.73)	2.25
7	Being forced to surrender to someone who is overcome with lust for me	1.68 (1.21)	4.10 (2.18)	1.37
50	A man or woman sweeps me off my feet and teaches me all about romance and sex	1.64 (1.45)	4.22 (2.01)	1.47
52	Having sex with my current partner	1.64 (1.20)	5.46 (1.59)	2.71
48	Teasing a man or woman (or men or women) until s/he is consumed with sexual desire for me	1.64 (1.10)	4.64 (2.00)	1.86
51	Having anal intercourse	1.63 (1.33)	4.32 (2.18)	1.49
62	Pretending that I am doing something wicked or forbidden	1.63 (1.27)	4.34 (2.05)	1.59
38	Having sex in a different place like a car, hotel, beach, woods	1.63 (1.19)	5.15 (1.73)	2.37
31	Being passive and submissive to someone whose body I want	1.62 (1.36)	3.91 (2.09)	1.3
49	Having an attractive stranger reveal his or her body to me	1.62 (1.24)	5.16 (1.88)	2.22
22	Being overpowered or forced to surrender because I am so irresistible	1.59 (1.34)	3.57 (2.16)	1.1
15	Exerting dominance and control over a partner who I am highly sexually attracted to	1.56 (1.16)	4.38 (2.09)	1.67
6	I imagine that an older, experienced partner is attracted to me because of my youthful appearance	1.56 (1.15)	3.98 (2.12)	1.42
55	Exerting dominance and control over a partner who finds me very desirable	1.56 (1.12)	4.05 (2.20)	1.43
1	Having sex with a very attractive stranger	1.54 (1.15)	5.59 (1.68)	2.81
58	Telling my partner how good-looking and sexy s/he is	1.53 (1.01)	4.95 (1.72)	2.42
3	Having sex with two or more very attractive partners at the same time	1.51 (1.12)	5.57 (1.96)	2.54
39	Exerting dominance and control over a very desirable partner	1.47 (1.00)	3.93 (2.16)	1.46
24	Having sex with two or more partners, who are very attracted to me, at the same time	1.46 (1.15)	5.21 (2.04)	2.26
12	Lusting after a hot guy or girl who is teasing and arousing me with his or her body	1.45 (.96)	5.21 (1.75)	2.66
33	Being forced to surrender to someone while I'm overcome with lust for him or her	1.44 (1.16)	3.67 (2.24)	1.25
28	Exerting dominance and control over a partner who is highly attracted to me	1.44 (.92)	3.95 (2.18)	1.5
57	Taking the initiative and dominant role while having sex	1.44 (.86)	4.48 (1.89)	2.07
60	Being forced to sexually pleasure attractive men or women	1.42 (1.09)	3.68 (2.26)	1.27
45	Men or women talk about how sexy and irresistible I am before forcing me to sexually pleasure them	1.41 (1.02)	4.01 (2.22)	1.51
59	Reliving a previous sexual experience	1.41 (.99)	4.51 (1.86)	2.08
20	I sweep a man or woman off his or her feet and teach them all about romance and sex	1.37 (1.07)	4.42 (2.13)	1.81
56	Having sex without making eye contact	1.37 (1.05)	2.84 (1.77)	1.01
17	Using force or humiliating a person who desires me	1.37 (.96)	2.43 (1.92)	0.67

Table 4 continued

SFQ item #	Item	Score mean (SD)		Effect size (Cohen's <i>d</i>)
		Asexual men	Sexual men	
16	Showing off my body to tease and arouse onlookers who lust after me	1.37 (.95)	3.56 (2.00)	1.4
5	Having casual sex with a person who I just met and who finds me irresistible	1.36 (.78)	5.25 (1.93)	2.64
35	Undressing for my partner	1.36 (.77)	4.08 (1.92)	1.86
10	Overpowering or forcing another to surrender because he or she is so irresistible	1.34 (.78)	3.31 (2.21)	1.19
29	Teasing a man or woman (or men or women) until I can no longer contain my sexual desire for him/her	1.34 (.76)	4.16 (1.89)	1.96
25	Giving sexual pleasure to many people	1.31 (.99)	4.25 (2.21)	1.72
8	Dating an exotic dancer	1.31 (.92)	3.74 (2.08)	1.51
44	I imagine that I am attracted to a sexual partner because of his or her greater age and experience	1.31 (.86)	3.71 (2.12)	1.48
46	Showing my partner how much I desire his or her body	1.29 (.74)	5.12 (1.70)	2.92
41	Having casual sex with a person I just met and find irresistible	1.29 (.72)	4.83 (2.05)	2.3
36	Using force or humiliating a person who I desire	1.27 (.87)	2.28 (1.86)	0.69
18	Pleasuring many other people while having group sex	1.25 (.92)	3.78 (2.23)	1.45
21	Having sex with a stranger who is very attracted to me	1.24 (.68)	5.14 (1.96)	2.66
37	Being an exotic dancer	1.22 (.70)	2.20 (1.64)	0.78
23	Dressing in sexy, transparent underwear for my partner	1.21 (.64)	3.16 (2.12)	1.25
27	Revealing my body to an attractive stranger	1.21 (.55)	3.80 (2.01)	1.76
42	Receiving sexual pleasure from many people	1.19 (.57)	4.55 (2.16)	2.13
30	Being the center of attention while having group sex	1.19 (.54)	3.72 (2.23)	1.56
47	Having sex with many men or women, all of whom are very attractive	1.15 (.61)	4.70 (2.13)	2.66
26	Talking dirty to my partner	1.15 (.41)	4.57 (1.95)	2.43
14	Being a promiscuous person who has many irresistible sexual partners	1.14 (.47)	4.06 (2.09)	1.93
32	Having sex with many men or women, all of them overcome with lust for my body	1.12 (.46)	4.28 (2.20)	1.99
34	Being a promiscuous person who attracts the attention of many partners with my irresistibility	1.12 (.46)	3.95 (2.07)	1.89

Items are sorted by asexual men's SFQ scores, from highest to lowest

All item scores differ between asexual and sexual men at a statistical significance

those who have had a sexual fantasy, asexual women and men were significantly more likely to endorse the response "my fantasies do not involve other people" compared to sexual participants. Further, asexual women were significantly more likely to report that they had never had a sexual fantasy than asexual men. Asexual women were also significantly more likely to report sexual fantasies involving fictional characters.

It is interesting to note that a substantial proportion of asexual individuals in the current study did report engaging in sexual fantasy (65 % of asexual women and 80 % of asexual men), and a large number (51 % of asexual women and 75 % of asexual men) engaged in both sexual fantasy and masturbation, despite reporting a lack of sexual attraction. Further, there was a large amount of overlap in the content of sexual fantasy of asexual and sexual participants, including themes such as BDSM, fetishes, and fantasies of non-consent. Because sexual fantasies are thought to be an indi-

cator of an individual's true sexual interest, this raises questions about the meaning of these sexual fantasies for the construct of asexuality, which is based on the idea that an individual lacks sexual interest.

On a sexual fantasy questionnaire, asexual participants (both women and men) consistently scored each sexual fantasy as being less sexually exciting than did sexual participants. When given the opportunity to share their sexual fantasies using an open-ended format, there were a number of fantasy themes that were more common among asexual participants compared to sexual participants, particularly the tendency to have fantasies about sexual activities that did not involve themselves. Asexual participants were less likely to fantasize about topics such as group sex, public sex, and having an affair. There was a large amount of overlap between sexual fantasies of asexual and sexual participants. This overlap in sexual fantasy content was unexpected, and perhaps one of the most

Table 5 Patterns of masturbation and sexual fantasy

	Women		χ^2	<i>p</i>	Men		χ^2	<i>p</i>
	Asexual (<i>n</i> = 292) (%)	Sexual (<i>n</i> = 221) (%)			Asexual (<i>n</i> = 59) (%)	Sexual (<i>n</i> = 167) (%)		
No masturbation or sexual fantasy	16	1	33.60	<.001	6	0	11.53	<.001
Masturbation but no sexual fantasy	19	1	40.95	<.001	15	1	18.60	<.001
Sexual fantasy but no masturbation	14	5	40.30	<.001	4	4	0.07	>.05
Masturbation and sexual fantasy	51	93	104.50	<.001	75	95	20.30	<.001

interesting findings of the current study. Notably, both groups (both men and women) were equally likely to fantasize about topics such as BDSM and fetishes such as podophilia (feet; Weinberg, Williams, & Calhan, 1994), feeder (Terry & Vasey, 2011), maieusiophilia/breeder (Dean, 2009), and vorarephilia (Lykins & Cantor, 2013).

Masturbation

The current findings suggest that significantly fewer asexual women masturbate than do sexual women, but that asexual men masturbate at rates similar to sexual men. Previous findings on masturbation frequencies among asexual individuals have also been mixed. There has been some research indicating that asexual individuals (both women and men) masturbate at frequencies similar to their sexual counterparts (Brotto et al., 2010). However, the one available study based on data from a national probability sample found that, of those asexual individuals (women and men combined) who reported sexual experience with a partner, 42 % had masturbated in the past month, which was significantly lower than 70 % of sexually identified participants (Bogaert, 2013), and this finding has been supported by a recent study using convenience sampling in which 56 % of asexual participants (again, both women and men together) reported masturbating at least monthly (Yule et al., 2014b).

One early study on the development of masturbation among young, college aged women, found that masturbation is more likely to occur when it is found to be rewarding and pleasurable (Clifford, 1978) and this has been supported by more recent research (Carvalho & Leal, 2013). The current study queried motives for masturbation. Asexual women and men were both significantly less likely to cite sexual pleasure as a reason for engaging in this behavior, and asexual women (but not men) were less likely to report “for fun” as a reason for masturbation, which raises the question of how asexual men are differentiating sexual pleasure from fun. Rather, asexual women were more likely to endorse “I feel that I have to [engage in masturbation],” and were less likely to cite “to relieve tension” compared to sexual participants as a reason for masturbation. Asexual men, but not women, were significantly more likely

to endorse “other” reasons for masturbation, such as needing to fall asleep, boredom, health reasons, or procrastination.

The findings reported above support earlier, anecdotal, findings that some asexual individuals’ primary motives for masturbation are non-sexual (Brotto et al., 2010), in that wishing to fall asleep and to alleviate boredom were viewed as non-sexual motivations. Further, our findings align with Bogaert’s (2012a, 2013) notion of “non-directed masturbation,” a term reflecting the presence of sexual desire and urge to engage in masturbation, but desire that is not directed toward anyone or anything in particular. The wide range of reasons for masturbation endorsed by asexual individuals is a testament to the diversity of asexuality and asexual individuals. The use of masturbation as a purely physical release or as a tool to relieve tension might seem somewhat detached and devoid of emotion, and thus seem detached from sexuality and sexual activity. In fact, it is possible to have physiological sexual arousal in the form of erection, vaginal vasocongestion, and lubrication, and even orgasm, without having any desire to engage in sexual activity with others (Levin & van Berlo, 2004).

Sexual Fantasy

Overall, a much larger proportion of asexual participants, both men and women, reported never having had a sexual fantasy compared to sexual participants. Approximately 35 % of asexual women and 20 % of asexual men in the current sample denied ever having had a fantasy, compared to very few of the sexual participants. Previous research revealed a similar finding, such that 40 % of the asexual sample (both women and men) noted that they had never had a sexual fantasy (Yule et al., 2014b) compared to almost none of the sexual participants, including those who met diagnostic criteria for a sexual desire disorder. The current findings strongly suggest that sexual fantasies are not, in fact, ubiquitous, as previous writings have suggested (e.g., Leitenberg & Henning, 1995).

Interestingly, those asexual individuals in the current study who reported having never engaged in a sexual fantasy scored higher (i.e., had more “asexual” features) on the AIS than did asexual individuals who have had sexual fantasies, providing some evidence for previous speculations (Bogaert, 2012a) that

Table 6 Comparison of open-ended sexual fantasy responses between asexual women and sexual women

Theme	% Asexual women (n = 122)	% Sexual women (n = 84)	χ^2	p
Asexual women significantly more likely to fantasize about				
Don't involve me	32.79	8.33	16.89	<.001
Fictional human characters/not real people	27.87	4.76	17.66	<.001
Asexual women significantly less likely to fantasize about				
Group sex	4.1	30.95	28.06	<.001
Public sex	1.64	15.48	14.11	<.001
Having an affair/extramarital sex*	0	9.93	5.16	<.05
Sex w/celebrity	0.82	2.38	10.55	<.01
Memories of actual past sexual encounters	0	3.57	4.42	<.05
Cuckold fantasy	0	3.57	4.42	<.05
Sex with Ex	0	3.57	4.42	<.05
Asexual women just as likely to fantasize about				
BDSM (including humiliation)	32.79	32.14	0.0094	>.05
Observing homosexual encounters (when the other gender)/sex w/other gender (or same gender if gay)	16.39	14.29	0.17	>.05
Other (anything that comes up only once and doesn't fit into any other category)	16.39	16.67	0.0027	>.05
Fetish (feeder, breeder, vore, feet, etc.)	10.66	7.14	0.039	>.05
Rape fantasy/non-consent/erotic reluctance	9.84	11.9	0.2232	>.05
Sex toys	8.2	3.57	1.8	>.05
Voyeurism (watching others or being watched)	8.2	11.9	0.78	>.05
Sex with power figure (e.g., teacher)	5.74	10.71	1.72	>.05
Making out/foreplay	5.74	2.38	1.34	>.05
Masturbation	5.74	5.95	0.0042	>.05
Sex while drugged/mind control/hypnosis	4.1	0	3.53	>.05
Risky/forbidden sex	4.1	7.14	0.91	>.05
Engaging in sexual activity as the other sex	4.1	2.38	0.45	>.05
Involving older partners	4.1	4.76	0.05	>.05
Transvestism/changing genders or genitalia/forced feminization	3.28	0	2.81	>.05
Don't involve (sex with) other people	3.28	0	2.81	>.05
Pleasing a partner	3.28	7.14	1.61	>.05
Fantasies aren't sexually arousing (although they may be physically arousing)	3.28	1.19	0.92	>.05
Sex in context of larger story	3.28	2.38	0.14	>.05
Roleplay (furies, cosplay)	2.46	8.33	3.72	>.05
Object-desire self-consciousness/teasing	2.46	7.14	2.61	>.05
Incest	2.46	4.76	0.8	>.05
Sex with stranger/anonymity	2.46	4.76	0.8	>.05
Anal play/anal intercourse	2.46	4.76	0.8	>.05
Sex w/non-human creatures (non-beastiality)	2.46	4.76	0.8	>.05
Oral sex	2.46	2.38	0.0013	>.05
Rough sex (not BDSM)	2.46	2.38	0.0013	>.05
Sex with animals	1.64	1.19	0.7	>.05
Sex with friend	0.82	1.19	0.071	>.05
Sex w/sleeping partner or vice versa	0	2.38	2.93	>.05
Sex with/as virgin	0	1.19	1.46	>.05
Sex with current partner*	0	2.13	0.28	>.05
Involving younger partners	0	0	n/a	n/a
Cum play	0	0	n/a	n/a

Table 6 continued

Theme	% Asexual women (<i>n</i> = 122)	% Sexual women (<i>n</i> = 84)	χ^2	<i>p</i>
Fantasies that focus on non-sexual content				
Focusing on emotions	18.03	5.95	6.37	<.05
Romantic (non-sexual) (e.g., cuddling)	14.75	1.19	10.93	<.001
No sexual or romantic content	7.38	0	6.48	<.01
Sensory (smell, sight, taste, sound)	5.74	1.19	2.76	>.05
Monogamy or poly, involving commitment or relationship	4.1	1.19	1.6	>.05
Being cared for/managed/caring for others	1.64	2.38	0.14	>.05

* Fantasies about current partner and engaging in extramarital sex or affairs were analyzed for participants who were in a relationship only. Asexual *n* = 62, sexual *n* = 141

asexuality exists on a continuum, with a lack of behaviors such as engaging in sexual fantasy and/or masturbation occurring more frequently among a subgroup of asexual individuals.

Previous research found that 19 % of asexual participants reported masturbating (Yule et al., 2014b) but reported never having had a sexual fantasy, and this was replicated in the current study. Yule et al. speculated that this group might be focusing on physical sensations during masturbation rather than eliciting a sexual fantasy during masturbation. In the current study, a greater proportion of asexual women and men did endorse focusing on tactile stimulation when engaging in sexual fantasies than sexual women and men; however, this difference was not significant, so it remains unclear whether this explanation accounts for those who report masturbating but not engaging in sexual fantasies. If asexual participants did not consider focusing on physical sensations during masturbation evidence of “sexual fantasy,” then this would not have been noted by participants in the open-ended sexual fantasy questionnaire. Further studies should focus on how asexual individuals understand sexual fantasy, perhaps employing face-to-face qualitative interviews.

Fourteen percent of asexual women and 12 % of asexual men in the current sample reported having sexual fantasies that did not involve other people, compared to less than one percent of sexual women, and none of the sexual men in the sample. This replicates previous research that found that 11 % of asexual individuals (both women and men) had sexual fantasies that did not involve other people (Yule et al., 2014b). This finding points to at least some asexual individuals perhaps fitting the category of analloeroticism, a term coined by Blanchard (1989) which describes individuals who are not attracted to other people but continue to experience sexual drive and/or sexual activities such as masturbation. Analloeroticism was first described in the context of autogynophilia (Blanchard, 1989), but the term is now used interchangeably with the term “libidoist” by some self-identified asexual individuals (<http://www.asexuality.org/en/topic/78181-libidoist-what-is-it/>), and may describe a subset of asexual individuals. Our finding that asexual men were more likely to describe sexual fantasies that focus on themes involving object-desire self-conscious or teasing may suggest that these participants experience automonophilia,

which may also fit under the umbrella of analloeroticism. The possibility for asexual subtypes with some fitting the category of analloerotic should be the focus of future research.

Asexual women in the current study were much more likely to endorse fantasies that focus on fictional human characters, rather than focusing on another person. In fact, there are at least some self-identified asexual individuals who also identify as “fictosexual” or “fictoromantic” (<http://www.asexuality.org/en/topic/135747-what-counts-as-fictosexual/?hl=fictosexual>). However, there were no significant differences between the asexual and sexual participants (women or men) in the frequency of endorsing fantasies that involved non-human animals/creatures, scenic imagery, or fetishes, in any proportion that was significantly more than that of sexual individuals. We did not ask specifically about schediophilia (also known as toonophilia; Griffiths, 2012), or sexual attraction to animated cartoon or anime characters. While there is very little academic writing on this topic, it has some presence on the Internet and there are claims that some individuals are sexually and/or romantically attracted to particular cartoon characters. Elucidating the difference between those who are attracted to human, non-human, and animated fictional characters will be important to consider in future asexuality research.

Asexual women were more likely than sexual women to report engaging in fantasies that focused on emotions or on romantic, non-sexual, intimacy such as cuddling. While these “romantic fantasies” arguably do not provide insight into “sexual” attraction or orientation, it is of interest that asexual women may have experienced these as sexual, particularly since they answered a question asking about contents of a “sexual” fantasy. It may be that these asexual women more clearly identify with a romantic identity (i.e., heteroromantic or homoromantic) than with a sexual identity, and that this might be influencing the content of what they identify to be a sexual fantasy. Since we did not assess participants’ romantic orientation in this study, the extent to which their romantic attractions influenced these responses is not clear. However, the 2014 AVEN Census (Ginoza, Miller, & AVEN Survey Team, 2014) highlighted the diversity of different romantic orientation subtypes among asexual participants. Future research should seek to explore whether an asexual individual’s romantic orientation impacts their

Table 7 Comparison of open-ended sexual fantasy responses between asexual men and sexual men

Theme	% Asexual men (n = 27)	% Sexual men (n = 64)	χ^2	p
Asexual men significantly <i>more likely</i> to fantasize about				
Don't involve me	18.52	0	12.54	<.001
Object-desire self-consciousness/teasing	11.11	0	7.35	<.01
Asexual men significantly <i>less likely</i> to fantasize about				
Group sex	3.7	39.06	11.63	<.001
Asexual men <i>just as likely</i> to fantasize about				
Fetish (feeder, breeder, vore, feet, etc.)	37.04	28.13	0.71	>.05
BDSM (including humiliation)	14.81	29.69	2.22	>.05
Other (anything that comes up only once and doesn't fit into any other category)	14.81	26.56	1.48	>.05
Voyeurism (watching others or being watched)	14.81	18.75	0.2	>.05
Masturbation	11.11	3.13	2.33	>.05
Transvestism/changing genders or genitalia/forced feminization	11.11	9.38	0.064	>.05
Rape fantasy/non-consent/erotic reluctance	7.41	9.38	0.092	>.05
Sex in context of larger story	3.7	0	2.4	>.05
Don't involve (sex with) other people	3.7	0	2.4	>.05
Observing homosexual encounters (when the other gender)/sex w/other gender (or same gender if gay)	3.7	10.94	1.24	>.05
Oral sex	3.7	9.38	0.86	>.05
Risky/forbidden sex	3.7	9.38	0.86	>.05
Anal play/anal intercourse	3.7	7.81	0.52	>.05
Fictional human characters/not real people	3.7	1.56	0.41	>.05
Engaging in sexual activity as the other sex	3.7	1.56	0.41	>.05
Rough sex (not BDSM)	3.7	6.25	0.14	>.05
Public sex	0	12.5	3.7	>.05
Involving younger partners	0	12.5	3.7	>.05
Sex with power figure (e.g., teacher)	0	7.81	2.32	>.05
Cuckold fantasy	0	7.81	2.32	>.05
Sex with friend	0	7.81	2.32	>.05
Involving older partners	0	6.25	1.77	>.05
Making out/foreplay	0	4.69	1.31	>.05
Sex with Ex	0	4.69	1.31	>.05
Cum play	0	4.69	1.31	>.05
Sex w/sleeping partner or vice versa	0	4.69	1.31	>.05
Incest	0	3.13	0.86	>.05
Sex with/as virgin	0	3.13	0.86	>.05
Sex with stranger/anonymity	0	7.81	0.52	>.05
Roleplay (furies, cosplay)	0	7.81	0.52	>.05
Memories of actual past sexual encounters	0	1.56	0.43	>.05
Pleasing a partner	0	1.56	0.43	>.05
Sex toys	0	1.56	0.43	>.05
Sex w/non-human creatures (non-beastiality)	0	1.56	0.43	>.05
Sex w/celebrity	0	1.56	0.43	>.05
Sex with current partner*	0	1.89	0.13	>.05
Having an affair/extramarital sex*	0	17.92	0.44	>.05
Fantasies aren't sexually arousing (although they may be physically arousing)	0	0	n/a	n/a
Sex while drugged/mind control/hypnosis	0	0	n/a	n/a
Sex with animals	0	0	n/a	n/a

Table 7 continued

Theme	% Asexual men (<i>n</i> = 27)	% Sexual men (<i>n</i> = 64)	χ^2	<i>p</i>
Fantasies that focus on non-sexual content				
No sexual or romantic content	22.22	4.69	6.55	<.01
Focusing on emotions	3.7	1.56	0.41	>.05
Romantic (non-sexual) (e.g., cuddling)	3.7	3.13	0.02	>.05
Being cared for/managed/caring for others	3.7	0	2.4	>.05
Sensory (smell, sight, taste, sound)	3.7	0	2.4	>.05
Monogamy or poly, involving commitment or relationship	0	1.56	0.43	>.05

* Fantasies about current partner and engaging in extramarital sex or affairs were analyzed for participants who were in a relationship only. Asexual *n* = 7, sexual *n* = 106

experience of sexual fantasy, and what implications this has for understanding the nature of sexual and romantic attraction development.

The largest distinguishing feature between fantasies of asexual individuals compared to sexual individuals was the former's increased likelihood of having sexual fantasies that did not involve them. This provides evidence for Bogaert's (2012b) identification of a phenomenon he coined "autochorissexuality," or identity-less sexuality, defined as "a disconnect between an individual's sense of self and a sexual object or target" (Bogaert, 2012b, p. 1513). Autochorissexual individuals view themselves as being separate from the sexual acts they are viewing or fantasizing about, thereby allowing for detachment between their sense of self and masturbation and sexual fantasies. In support of Bogaert's (2012b) speculation that some asexual individuals may be characterized as autochorissexual, we interpret the present data as asexual individuals using explicit stimuli as a vehicle to facilitate their sexual arousal and subsequent orgasm (Yule et al., 2014b). 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. This raises the possibility that subjective sexual attraction might represent another dimension of sexual orientation, with (some) asexual individuals being at the non-subjective polar end of a subjective/non-subjective orientation dimension.

Asexual women were less likely to fantasize about a number of topics, including group sex and public sex. These sexual fantasies arguably include content that is highly sexualized and focuses on sex with another person (interpersonal sex). In contrast, asexual women were more likely to fantasize about sexual topics that may be less focused on genital content (e.g., BDSM, sexual humiliation). Asexual women were also more like to fantasize about sexual topics involving only themselves (e.g., masturbation, use of sex toys) or that did not involve direct interactions with another person (e.g., voyeurism). Asexual women in a relationship were less likely than sexual women in a relationship to fantasize about extramarital sex.

Paraphilic Interest

Paraphilic interest is commonly defined as atypical sexual interest in an object, person, or activity, whereas a paraphilic disorder is defined as arising when the person "feels personal distress about their interest, not merely arising from society's disapproval," or the sexual interest causes another person's distress in some way (American Psychiatric Association, 2013). It is very unlikely that the majority of asexual individuals have paraphilias for two main reasons (Bogaert, 2012a); even those with extreme paraphilias maintain some level of sexual interest in other people. Further, the majority of asexual people are women and paraphilias tend to be rare among women (Cantor, Blanchard, & Barbaree, 2009). Nonetheless, Bogaert (2012a) has speculated that asexual individuals, while experiencing a lack of sexual attraction for other people, might experience unusual sexual attractions, or paraphilias. Following from this, it may be that an underlying paraphilic interest is what motivates an asexual individual's masturbation and sexual fantasy behavior. Further, a substantial proportion of our asexual sample reported being in a relationship and, according to our thematic analysis of sexual fantasy, did indicate some level of sexual interest in people. It is possible that some of our asexual participants are displaying paraphilic interest (including analloeroticism or autochorissexuality), although this should be investigated further in future research. It is important to note that paraphilic interest may be more common in the general (sexual) population than was previously thought. Thus, the "atypical" sexual attractions experienced by some asexual individuals may actually be quite typical. This deserves further investigation among both sexual and asexual groups.

Limitations

Our sample of men was small and may have been underpowered, such that it was difficult to detect significant differences between sexual and asexual men on sexual fantasy themes.

Further, our study relied on a convenience sample of asexual participants recruited from the AVEN Web site, which may not be representative of the asexual population, as those who frequent the Web site (and participate on studies posted there) may tend to be more liberal and perhaps more curious about sexuality and sexual behaviors than those asexual individuals who are not on the Web site. Another limitation is that we did not assess how frequently participants experienced each of their types of fantasies. It may be that for some of them, the described fantasy was experienced in isolation, whereas other types of fantasy tend to be elicited on a more regular basis.

Conclusion

While there are a number of differences between asexual and sexual groups in terms of patterns of masturbation and sexual fantasy, as well as in contents of sexual fantasy, the similarity between the groups on several of these measures is striking. For example, nearly half of asexual women and three quarters of asexual men reported both experiencing sexual fantasy and masturbating, despite reporting a lack of sexual attraction to other people and identifying as asexual. Further, there was significant overlap in the sexual fantasies experienced by participants, regardless of their asexual or sexual status. Sexual fantasies have long been thought to reveal an individual's innermost desires. However, the current data suggest that if this is true, individuals do not necessarily act on these desires. An asexual individual may not experience sexual attraction, but may nonetheless engage in sexual fantasy, perhaps to facilitate physiological sexual arousal and masturbation. The sexual fantasies may not be reflections of innate sexual wants or desires. More research will be needed to ascertain whether this is because the individual cannot act on these desires (in the case of being attracted to fictional characters), because social constraints prohibit them from doing so, or because there is a disconnect between their subjective sense of self in relation to sexual targets. Further, these findings suggest that sexual fantasies are not, in fact, ubiquitous, as previous writings have suggested. What makes one individual have sexual fantasies, and whether they appear spontaneously or deliberately, versus another individual not having fantasies, is a fascinating area of inquiry that may also inform the debate on whether lack of sexual fantasies should be a marker of a sexual desire disorder (Brotto, 2010).

The current findings strongly suggest that self-identified asexuality might comprise a highly heterogeneous group. There are likely a large number of variations in how (lack of) sexual attraction is experienced that might lead a person to identify as asexual, including a total lack of sexual attraction, autochorissexuality, analloeroticism, and other types of paraphilic tendencies. It is also important to note that our asexual sample was significantly younger than our sexual sample. This difference in age may, in part, explain why asexuality appears to be such a heterogeneous category. As noted above, it

may be that younger participant's sexuality and sexual identity is more in flux compared to older participants. It may be that future research will find less heterogeneity in an older group of asexual individuals. It will be essential for researchers to take these variations into account when conducting future investigations into asexuality. Our finding that asexual individuals who did and did not engage in sexual fantasy or masturbation differed in terms of AIS scores suggests that there may be different subtypes of asexuality, and that the AIS might be a useful tool to aide in these investigations.

Finally, the current findings further suggest that it is important to be aware of the difference between self-identified asexuality and a more stringent definition of asexuality that includes a lack of sexual attraction to anything at all, when we are using these definitions for research purposes. While self-identification as asexual might provide asexual individuals with a community and way to describe their experience in the context of navigating an arguably sexualized society, we must be very careful when utilizing these definitions and self-identities for quantitative empirical research investigating the source of the corresponding lack of sexual attraction. Self-identification as asexual is a legitimate, and arguably very important, aspect of asexuality. However, in the context of sexuality (and sexual orientation) research, it must be acknowledged that the umbrella term "asexual" might not accurately describe the entirety of all self-identified asexual individual's experience. Further investigations of the topic should be careful to clearly define what is meant by terms such as "asexual," and be thorough in the questions that are posed to identify participants as such for research purposes. Of course, it is a different, and very important, question entirely to conduct research on self-identified asexual individuals and the communities that develop around this self-identification. We must be clear in the distinction and in defining our terms.

Acknowledgments M. A. Yule was funded by a Doctoral Research Award from the Canadian Institutes of Health Research.

Compliance with Ethical Standard

Conflict of interest M. A. Yule declares that she has no conflict of interest. L. A. Brotto declares that she has no conflict of interest. B. B. Gorzalka declares that he has no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the Institutional and/or National Research Committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Appendix

See Table 8.

Table 8 Items on the Asexuality Identification Scale (AIS).

Number	Item	Response range (on a 5-point Likert scale)
1.	I experience sexual attraction toward other people	1 = Completely true 5 = Completely false
2.	I lack interest in sexual activity	1 = Completely false 5 = Completely true
3.	I don't feel that I fit the conventional categories of sexual orientation such as heterosexual, homosexual, or bisexual	1 = Completely false 5 = Completely true
4.	The thought of sexual activity repulses me	1 = Completely false 5 = Completely true
5.	I find myself experiencing sexual attraction toward another person	1 = Always 5 = Never
6.	I am confused by how much interest and time other people put into sexual relationships	1 = Completely false 5 = Completely true
7.	The term "non-sexual" would be an accurate description of my sexuality	1 = Completely false 5 = Completely true
8.	I would be content if I never had sex again	1 = Completely false 5 = Completely true
9.	I would be relieved if I was told that I never had to engage in any sort of sexual activity again	1 = Completely false 5 = Completely true
10.	I go to great lengths to avoid situations where sex might be expected of me	1 = Completely false 5 = Completely true
11.	My ideal relationship would not involve sexual activity	1 = Completely false 5 = Completely true
12.	Sex has no place in my life	1 = Completely false 5 = Completely true

Originally published in Yule et al. (2015)

References

- Aicken, C. R. H., Mercer, C. H., & Cassell, J. A. (2013). Who reports absence of sexual attraction in Britain? Evidence from national probability surveys. *Psychology & Sexuality, 4*(2), 121–135. doi:[10.1080/19419899.2013.774161](https://doi.org/10.1080/19419899.2013.774161)
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Barclay, A. (1973). Sexual fantasies in men and women. *Medical Aspects of Human Sexuality, 7*(5), 204–216.
- Bivona, J. M., Critelli, J. W., & Clark, M. J. (2012). Women's rape fantasies: An empirical evaluation of the major explanations. *Archives of Sexual Behavior, 41*(5), 1107–1119. doi:[10.1007/s10508-012-9934-6](https://doi.org/10.1007/s10508-012-9934-6)
- Blanchard, R. (1989). The concept of autogynephilia and the typology of male gender dysphoria. *Journal of Nervous and Mental Disease, 177*(10), 616–623.
- Bogaert, A. F. (2004). Asexuality: Prevalence and associated factors in a national probability sample. *Journal of Sex Research, 41*(3), 279–287. doi:[10.1080/00224490409552235](https://doi.org/10.1080/00224490409552235)
- Bogaert, A. F. (2006). Toward a conceptual understanding of asexuality. *Review of General Psychology, 10*(3), 241–250. doi:[10.1037/1089-2680.10.3.241](https://doi.org/10.1037/1089-2680.10.3.241)
- Bogaert, A. F. (2012a). *Understanding asexuality*. Lanham, MD: Rowman & Littlefield Publishers.
- Bogaert, A. F. (2012b). Asexuality and autochorissexualism (identity-less sexuality). *Archives of Sexual Behavior, 41*(6), 1513–1514. doi:[10.1007/s10508-012-9963-1](https://doi.org/10.1007/s10508-012-9963-1)
- Bogaert, A. F. (2013). The demography of asexuality. In A. Baumle (Ed.), *International handbook on the demography of sexuality* (Vol. 5, pp. 275–288). Dordrecht: Springer. doi:[10.1007/978-94-007-5512-3_15](https://doi.org/10.1007/978-94-007-5512-3_15)
- Bogaert, A. F., & Brotto, L. A. (2014). Object of desire self-consciousness theory. *Journal of Sex and Marital Therapy, 40*(4), 323–338. doi:[10.1080/0092623X.2012.756841](https://doi.org/10.1080/0092623X.2012.756841)
- Bogaert, A. F., Visser, B. A., & Pozzebon, J. A. (2015). Gender differences in object of desire self-consciousness sexual fantasies. *Archives of Sexual Behavior, 44*(8), 2299–2310. doi:[10.1007/s10508-014-0456-2](https://doi.org/10.1007/s10508-014-0456-2)
- Brotto, L. A. (2010). The DSM diagnostic criteria for hypoactive sexual desire disorder in women. *Archives of Sexual Behavior, 39*(2), 221–239. doi:[10.1007/s10508-009-9543-1](https://doi.org/10.1007/s10508-009-9543-1)
- Brotto, L. A., Knudson, G., Inskip, J., Rhodes, K., & Erskine, Y. (2010). Asexuality: A mixed-methods approach. *Archives of Sexual Behavior, 39*(3), 599–618. doi:[10.1007/s10508-008-9434-x](https://doi.org/10.1007/s10508-008-9434-x)
- Brotto, L. A., & Yule, M. (2016). Asexuality: Sexual orientation, paraphilia, sexual dysfunction, or none of the above? *Archives of Sexual Behavior*. doi:[10.1007/s10508-016-0802-7](https://doi.org/10.1007/s10508-016-0802-7)
- Brotto, L. A., & Yule, M. A. (2011). Physiological and subjective sexual arousal in self-identified asexual women. *Archives of Sexual Behavior, 40*(4), 699–712. doi:[10.1007/s10508-010-9671-7](https://doi.org/10.1007/s10508-010-9671-7)

- Cantor, J. M., Blanchard, R., & Barbaree, H. (2009). Sexual disorders. In P. H. Blaney & T. Millon (Eds.), *Oxford textbook of psychopathology* (2nd ed., pp. 527–550). New York: Oxford University Press.
- Carvalho, A., & Leal, I. (2013). Masturbation among women: Associated factors and sexual response in a Portuguese community sample. *Journal of Sex and Marital Therapy*, 39(4), 347–367. doi:10.1080/0092623X.2011.628440
- Clifford, R. (1978). Development of masturbation in college women. *Archives of Sexual Behavior*, 7(6), 559–573. doi:10.1007/BF01541922
- Crepault, C., & Couture, M. (1980). Men's erotic fantasies. *Archives of Sexual Behavior*, 9(6), 565–581.
- Critelli, J. W., & Bivona, J. M. (2008). Women's erotic rape fantasies: An evaluation of theory and research. *Journal of Sex Research*, 45(1), 57–70. doi:10.1080/00224490701808191
- Dean, T. (2009). *Unlimited intimacy: Reflections on the subculture of barebacking*. Chicago, IL: University of Chicago Press.
- Dunkley, C. R., & Dang, S. S. (2016). *Factorial structure of BDSM and paraphilic sexual interests*. Unpublished data.
- Ellis, B. J., & Symons, D. (1990). Sex differences in sexual fantasy: An evolutionary psychological approach. *Journal of Sex Research*, 27(4), 527–555. doi:10.1080/00224499009551579
- Gerressu, M., Mercer, C. H., Graham, C. A., Willings, K., & Johnson, A. M. (2008). Prevalence of masturbation and associated factors in a British national probability survey. *Archives of Sexual Behavior*, 37(2), 266–278. doi:10.1007/s10508-006-9123-6
- Ginoza, M. K., Miller, T., & AVEN Survey Team. (2014). The 2014 AVEN community census: Preliminary findings. Web. Retrieved March 13, 2016 from <https://asexualcensus.files.wordpress.com/2014/11/2014censuspreliminaryreport.pdf>
- Gordon, A. (2002). SurveyMonkey.com-web-based survey and evaluation system. *The Internet and Higher Education*, 5(1), 83–87.
- Griffith, M. (2012). Something to get animated about: A brief overview of toonophilia. Dr. Mark Giffith's blog. Retrieved from <http://dmarkgriffiths.wordpress.com/?s=+Toonophilia>
- Höglund, J., Jern, P., Sandnabba, N. K., & Santtila, P. (2014). Finnish women and men who self-report no sexual attraction in the past 12 months: Prevalence, relationship status, and sexual behavior history. *Archives of Sexual Behavior*, 43(5), 879–889. doi:10.1007/s10508-013-0240-8
- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior in the human male*. Philadelphia: W. B. Saunders.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). *Sexual behavior in the human female*. Philadelphia: W. B. Saunders.
- Knafo, D., & Jaffe, Y. (1984). Sexual fantasizing in males and females. *Journal of Research in Personality*, 18(4), 451–462. doi:10.1016/0092-6566(84)90004-7
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press.
- Leitenberg, H., & Henning, K. (1995). Sexual fantasy. *Psychological Bulletin*, 117(3), 469–496. doi:10.1037/0033-2909.117.3.469
- LeVay, S., & Baldwin, J. (2012). *Human sexuality* (4th ed.). Sunderland, MA: Sinauer.
- Levin, R. J., & van Berlo, W. (2004). Sexual arousal and orgasm in subjects who experience forced or non-consensual sexual stimulation—A review. *Journal of Clinical Forensic Medicine*, 11(2), 82–88.
- Lodi-Smith, J., Geise, A. C., Roberts, B. W., & Robins, R. W. (2009). Narrating personality change. *Journal of Personality and Social Psychology*, 96(3), 679–689. doi:10.1037/a0014611
- Lucassen, M. F. G., Merry, S. N., Robinson, E. M., Denny, S., Clark, T., Ameratunga, S., ... Rossen, F. V. (2011). Sexual attraction, depression, self-harm, suicidality and help-seeking behaviour in New Zealand secondary school students. *Australian and New Zealand Journal of Psychiatry*, 45(5), 376–383. doi:10.3109/00048674.2011.559635
- Lykins, A. D., & Cantor, J. M. (2013). Vorarephilia: A case study in masochism and erotic consumption. *Archives of Sexual Behavior*, 43(1), 181–186. doi:10.1007/s10508-013-0185-y
- Poston, D. L., & Baumle, A. K. (2010). Patterns of asexuality in the United States. *Demographic Research*, 23, 509–530. doi:10.4054/DemRes.2010.23.18
- Terry, L. L., & Vasey, P. L. (2011). A case report of feederism in a women. *Archives of Sexual Behavior*, 40(3), 639–645. doi:10.1007/s10508-009-9580-9
- Visser, B. A., DeBow, V., Pozzebon, J. A., Bogaert, A. F., & Book, A. (2014). Psychopathic sexuality: The thin line between fantasy and reality. *Journal of Personality*, 83(4), 376–388. doi:10.1111/jopy.12110
- Weinberg, M. S., Williams, C. J., & Calhan, C. (1994). Homosexual foot fetishism. *Archives of Sexual Behavior*, 23(6), 611–626.
- Yule, M. A., Brotto, L. A., & Gorzalka, B. B. (2014a). Biological markers of asexuality: Finger length ratios, handedness, and birth order in self-identified asexual men and women. *Archives of Sexual Behavior*, 43, 299–310. doi:10.1007/s10508-013-0175-0
- Yule, M. A., Brotto, L. A., & Gorzalka, B. B. (2014b). Sexual fantasy and masturbation among asexual individuals. *Canadian Journal of Human Sexuality*, 23(2), 89–95. doi:10.3138/cjhs.2409
- Yule, M. A., Brotto, L. A., & Gorzalka, B. B. (2015). A validated measure of no sexual attraction: The Asexuality Identification Scale. *Psychological Assessment*, 27(1), 148–160. doi:10.1037/a0038196