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certain degree of negotiating sexual activity, was also prominent. The results do not suggest higher rates of psychopathology among asexuals, however, a subset might fit the criteria for Schizoid Personality Disorder. Low levels of sexual response were not viewed as distressing, and there was strong opposition to viewing asexuality as an extreme case of sexual desire disorder. Finally, asexuals were very motivated to liaise with sex researchers to further the scientific study of asexuality, and to use AVEN to promote education and reduce stigma.

Understanding Asexuality using a Mixed-Methods Approach:

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Understanding Asexuality using a Mixed-Methods Approach

ABSTRACT

Existing definitions of asexuality have focused on sexual attraction, sexual behavior, lack of sexual orientation, and lack of sexual excitation, however, the extent to which these definitions are accepted among the asexual community is unknown. Moreover, prior empirical studies have yielded some conflicting findings with respect to gender prevalence, relationship characteristics, and other associated features of asexuality. The goal of this two-part study was to explore asexuality using a mixed-methods (i.e., quantitative and qualitative) approach. In study 1, 187 asexual men (n = 54) and women (n = 133) recruited from the Asexuality Visibility and Education Network (AVEN) completed validated questionnaires of sexual behavior, response and distress, psychiatric and personality attributes, and social desirability. Findings from Study 1 were used to inform the design of Study 2, in which a sample of 15 asexuals took part in in-depth telephone interviews. The findings suggest that asexuality is best conceptualized as a lack of sexual attraction; however, there is great variability in the experience of sexual response and behaviors among asexuals. Interest in romantic relationships, and an acknowledgement that such relationships may also involve a certain degree of negotiating sexual activity, was also prominent. The results do not suggest higher rates of psychopathology among asexuals, however, a subset might fit the criteria for Schizoid Personality Disorder. Low levels of sexual response were not viewed as distressing, and there was strong opposition to viewing asexuality as an extreme case of sexual desire disorder. Finally, asexuals were very motivated to liaise with sex researchers to further the scientific study of asexuality, and to use AVEN to promote education and reduce stigma.

KEY WORDS: Asexuality; Sexual Orientation; Sexual Attraction, Romantic Attraction, Qualitative Methodology.

INTRODUCTION

The term “asexual” is typically encountered in the literature on invertebrates and other lower-level vertebrates, where asexuality conveys greater benefits with ecological adaptation over sexual forms. Recently, the topic of asexuality in humans has ignited a great deal of attention in the popular press (Chang, 2006); however, there have been only a few published studies on the topic. There have been at least seven primetime television features on asexuality in the past year, and several more newsprint and internet articles on the topic. A recent national probability study of 18,000 individuals in the United Kingdom suggested that approximately 1% of the population self-identify as asexual (Bogaert, 2004). Participants were asked to indicate their preferred target of sexual attraction in this study. Those who selected “I have never felt sexually attracted to anyone at all” were categorized as asexual and became the sample of interest. It is notable that others who have described the phenomenon of human asexuality have utilized different definitions. For example, Storms (1980) focused on the absence of sexual orientation, characterized by low homo-eroticism and low hetero-eroticism. Others have focused on behavioral definitions and characterized asexuals as individuals who engaged in few or no sexual behaviors (Rothblum & Brehony, 1993). Using a dual-control model of sexual excitation and inhibition, researchers from The Kinsey Institute have defined asexuality based on low levels of sexual desire or excitement (Prause & Graham, 2007). Interestingly, the definition of asexuality adopted by the largest international on-line community of asexual individuals, the Asexual Visibility and Education Network (AVEN), is broader, and differs from definitions proposed by academics. They propose that asexuality is marked by the absence of sexual attraction, and that “each asexual person experiences things like relationships, attraction and arousal somewhat differently” (Jay, 2005).

Although the available data are limited, two studies exist which have sought to describe the characteristics of asexual individuals. Bogaert (2004) explored various demographic and health-related variables predictive of being asexual in the 1% of individuals drawn from the British probability sample of 18,000 who reported lacking attraction to anyone. The asexual individuals had a later age of first sexual intercourse, had fewer sexual partners, and engaged in sexual activity less frequently than the sexual participants. Asexuals were also more likely to be female, older, from lower socioeconomic conditions and have had less education than sexuals[1]. On health-related measures, asexuals were found to have poorer health status, weighed less and was shorter compared to the sexual group. Asexual women also had a later age of menarche (Bogaert, 2004). Based on these biological features, Bogaert concluded that the etiology of asexuality may relate to biological factors early in development.

Prause and Graham (2007) utilized a mixed methods approach to explore asexuality, with a particular focus on the sexual excitation and sexual inhibition characteristics of the sample. They first conducted in-depth interviews with four self-identified asexuals and four themes emerged: (1) the experience of sexual behaviors; (2) definitions of asexuality; (3) motivations for engaging in sexual behavior; and (4) concerns about asexuality. The researchers then used these themes to guide a subsequent quantitative phase in which 41 self-identified asexuals and 1105 sexuals completed online questionnaires, including the Sexual Inhibition Sexual Excitation Scales (SIS/SES), a measure of one's sexual excitation and inhibition proneness (Janssen, Vorst, Finn, & Bancroft, 2002). The authors concluded that lack of sexual desire was a defining feature of the asexual group who had low sexual arousability (low SES scores); however, sexual inhibition scores did not significantly differ between sexuals and asexuals. They suggested that

[1] Note that whereas in prior research this group was defined as "non-asexual", the preferred term used among the asexual community is "sexuals" (Jay, 2005). This term will therefore be employed throughout the paper.

asexuality may be characterized by low excitatory processes and that asexuals may therefore have a higher threshold for sexual arousal (Prause & Graham, 2007).

Notably, there were some contradictory findings between the Bogaert (2004) and Prause and Graham (2007) studies. For example, the studies differed on the proportion of asexuals who had previously been in long-term relationships; the asexual sample in the Prause and Graham (2007) study had a higher level of education; and those in the Bogaert (2004) study reported significantly fewer lifetime sexual partners. It is possible that different operational definitions of asexuality employed to categorize sexuals from asexuals may at least partially account for these discrepancies. In a recent thoughtful conceptual analysis of asexuality, Bogaert (2006) acknowledges that by using a more general definition of asexuality, this may overcome the problem of investigator-derived operational definitions. It is also possible that a more comprehensive analysis of the lived experiences of asexual individuals may inform the definition as well as clarify the associated features of being asexual. The goal of this two-part study was to explore asexuality using a mixed-methods (i.e., quantitative and qualitative) methodological design. Increasingly, the benefits of combining quantitative with qualitative methods are being demonstrated in sexuality research (Tolman & Szalacha, 1999), as this reflects the optimal manner of exploring a construct that lacks conceptual and empirical clarity.

Study 1

The primary aim of Study 1 was to further characterize asexual individuals on the basis of sexual, interpersonal, personality, and psychopathology measures. Based on the conclusion by Bogaert (2006) that definitions of asexuality in research should be kept more general, and because there is not consensus among researchers on the definition, we allowed participants to

self-identify as asexual. Doing so allowed us to avoid the concern of false positives and false negatives in group identity.

The internet is becoming a widely used forum for conducting research. The anonymity and accessibility of the internet make it a useful tool for research into sensitive topics such as sexuality (Mustanski, 2001). Furthermore, the internet can be used to target specific individuals and increase the sample size of an otherwise underrepresented group (Mustanski, 2001). In the current study, participants were recruited from the AVEN website, which is devoted to those with an asexual identity. There are various asexuality web-forums internationally; however, AVEN has the world's largest self-identified asexual community. AVEN was founded in 2001 by David Jay, with the goal of creating public acceptance and discussion of asexuality, and of facilitating the growth of an asexual community. AVEN members throughout the world regularly engage in visibility projects, included but not limited to distributing informational pamphlets, leading workshops, arranging local meetings, and speaking to the media. Thus, members are enthusiastic about participating in academic research.

Study 1 explored the sexual, personality, psychopathology, and interpersonal functioning of a group of asexuals recruited via AVEN. Based on the finding by Prause and Graham (2007) that asexuals have depressogenic features, we explored level of depressive symptoms in this study. We also included a brief screen of personality to explore the possibility that asexuality is linked to, or is a feature of, a personality disorder—particularly those from Cluster A. The construct of alexithymia, described as a collection of personality traits that disturb individuals' affective experience and emotional understanding (Bagby, Parker & Taylor, 1994), has been found to be related to less frequent sexual behaviors in women (Brody, 2003) and to sexual dysfunction in men (Michetti, Rossi, Bonanno, & Simonelli, 2006). We therefore included a

brief measure of alexithymia to test the predominance of alexithymia in asexuals, and to speculate on how this might interfere with the formation of interpersonal and sexual relationships. Finally, because asexuality may represent a more benign expression of discomfort or awkwardness with interpersonal interactions not reflective of a psychiatric or personality disorder, we included a measure of interpersonal problems.

To explore sexual behavior (e.g., frequency of touching/petting/kissing, masturbation, and intercourse) in hopes of resolving some of the discrepancies between the findings of Bogaert (2004) and Prause and Graham (2007), we included validated measures of sexual activity. As the possibility that asexuals are simply at the extreme end of the sexual desire spectrum has been raised, sex-specific validated measures of sexual desire and other aspects of sexual response (including sexual arousal, orgasm, and pain) were included. We included a validated measure of sexual distress to test the possibility that asexuals might represent a subgroup of those with sexual dysfunction who have no accompanying sexual distress.

In order to reduce the possibility that asexuals might provide exaggerated socially desirable responses, and to reduce additional stigma associated with the term asexual (Bogaert, 2004), we also included a measure of social desirability.

METHOD

Participants

Although 214 individuals provided consent to participate and completed parts of the online questionnaires, information on the respondent's gender was missing in 27 cases. We thus limit our analyses to the 187 participants who indicated their gender (n = 54 males, n = 133 females) and provided complete data.

The average age of respondents was 30.1 years for males (SD = 11.9) and 28.2 years for females (SD = 12.1), and this was not statistically significant, $t(179) = 0.954$, $p > .05$. There was no significant difference between males and females on highest level of education achieved, $\chi^2(6) = 4.261$, $p > .05$, with the majority of participants having at least some university education. Twenty-six percent had a university degree and 8% had completed post-graduate training (e.g., Ph.D., or M.D.). There was a significant gender difference on annual individual income, $\chi^2 (7) = 20.10$, $p = .005$, such that males had higher income levels than females.

Measures

Measures of Sexual Behavior and Response

The Derogatis Sexual Functioning Inventory (DSFI) Drive Scale (Derogatis & Melisataros, 1979) is a multidimensional self-report scale that measures the quality of current sexual functioning. The Drive subscale (7 items) measures the frequency of 5 different sexual behaviors: sexual fantasies, kissing and petting, masturbation, sexual intercourse and the respondent's ideal frequency of intercourse. Behaviors were assessed on a 9-point scale from *Not at all* to *4 or more per day* and a single score was obtained from the sum of these 5 behavioral domains. Two additional questions in the Drive subscale concern the age of first interest in sexual activity and age of first sexual intercourse. These two questions are open-ended and are not included in the total score.

The Female Sexual Function Index (FSFI) (Rosen et al., 2000) is a 19-item multidimensional self-report scale that assesses key dimensions of sexual response in women. It is composed of 6 domains; desire, arousal, lubrication, orgasm, global satisfaction and pain. Scores were reported for each of these domains as well as a Total Score. Participants received a zero on items inquiring about sexual response during sexual activity if such activity had not

occurred. A score of 26.55 has been found to be an acceptable cutoff point to distinguish between women with and without sexual dysfunction (Wiegel, Meston & Rosen, 2005).

The International Index of Erectile Function (IIEF) (Rosen et al., 1997) is a 15-item self-report questionnaire that provides a brief assessment of erectile dysfunction. It assesses five domains of male sexual function: erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction. The IIEF is widely used in clinical trials and has been validated in its reliability, validity and ability to assess treatment responsiveness. Men who score 25 or less were classified as having erectile dysfunction.

The Female Sexual Distress Scale (FSDS) (Derogatis, Rosen, Leiblum, Burnett & Heiman, 2002) is a brief 12-item self-report scale that quantifies sexually-related personal distress based on the frequency rather than the intensity of distress. The questionnaire lists a series of problems that women might have about their sexuality, and asks the respondent how often each of these problems have bothered her in the past 30 days. Each item is scored on a 5-point scale ranging from *Never* to *Always*. The results are summed with a score of 15 or more being recommended as a cutoff point for determining the presence of personal distress. The FSDS has been shown to reliably discriminate between women with and without sexual dysfunction and is sensitive to therapeutically induced change. We included a modified version of this scale to assess sexual distress in men (SDS) given that there are no validated measures of male sexual distress available.

Measures of Psychiatric Symptoms and Personality Characteristics

The Personality Assessment Screener (PAS) (Morey, 1997) is a brief 22-item self-report inventory that measures various domains of general social functioning. It is based on the

Personality Assessment Inventory (PAI) (Morey, 1991), and is a commonly used tool to identify areas of clinical relevance that may require further assessment. The PAS is divided into 10 domains of personality problems including: Negative Affect, Acting Out, Health Problems, Psychotic Features, Social Withdrawal, Hostile Control, Suicidal Thinking, Alienation, Alcohol Problem and Anger Control. Each element is assessed with at least 2 questions and is scored by a sum of these items. In addition to scores within these subscales, a total score is used to measure overall potential for emotional or behavioral problems. If respondents have a total score greater or equal to 19, P scores are calculated for each individual domain. The P score in each domain represents the likelihood that the respondent would have a significant clinical score in that domain if tested with the more thorough parent assessment, the PAI.

The Inventory of Interpersonal Problems–Circumplex Version (IIP-C) (Horowitz, Rosenburg, Baer, Ureno & Villasenor, 1988) is an inventory designed to assess a wide range of interpersonal problems. The IIP-C is a 64-item version of the original longer IIP (Alden, Wiggins & Pincus, 1990; Horowitz, Alden, Wiggins & Pincus, 2000). Eight octant scales are assessed: Domineering, Vindictive, Cold, Socially Avoidant, Nonassertive, Exploitative, Overly Nurturant, and Intrusive. Two different types of interpersonal behaviors are assessed in this inventory-those that the respondent finds hard to do ("It's hard for me to…"), and those that the respondent feels that they do too much ("The following are things you do to much"). Each item is measured on a 5-point scale ranging from *Not at all* to *Extremely*. In this study the mean IIP-C scores were used as an overall measure of severity of interpersonal problems, with a higher score reflecting greater interpersonal problems.

The Twenty-Item Toronto Alexithymia Scale (TAS-20) (Bagby et al., 1994) is a 20-item self-report measure designed to measure the alexithymia construct. It is based on three factors

that are common to alexithymia: difficulty identifying and distinguishing between feelings and bodily sensations, difficulty describing feelings, and externally-oriented thinking. Each item is measured on a 5-point scale ranging from *Strongly Disagree* to *Strongly Agree*. A score equal to or above 61 has been suggested as a cutoff score to identify alexithymic subjects, while scores between 51 and 61 fall into an intermediate area that do not discriminate between alexithymic and nonalexithymic individuals.

The Beck Depression Inventory (BDI) (Beck & Steer, 1993) is a 21-item self-report questionnaire designed to assess severity of depressive symptoms over the past week. The statements are rated on a 4-point scale ranging from 0 to 3 (e.g., statements range from "I do not feel sad" to "I am so sad or unhappy that I can't stand it"). The BDI is a widely used measure and has been validated extensively. A score greater or equal to 15 denotes probable depression.

Measure of Social Desirability

The Balanced Inventory of Desirable Responding (BIDR) (Paulhus, 1988) is a 40-item scale used to identify exaggerated socially desirable responses. Respondents indicate how true they think a series of statements are that refer to the respondents' behaviors or feelings. Each statement is rated on a 7-item scale ranging from *Not True* to *Very True* and total scores are calculated using the sum of extreme responses (6 or 7). Two subscales are calculated: Impression Management and Self-Deception with a maximum score of 20.0 for each scale.

Procedure

Subjects were recruited to complete the online questionnaire from a link to the survey placed on the website of AVEN (www.asexuality.org). The advertisement was placed on the "Discussion" section of the website–a forum where members of the community post information

on current events and engage in dialogue about different topics related to asexuality. The study was described as one aimed at better understanding asexuality.

After linking to a new webpage that described the study briefly, participants viewed a consent form. After agreeing to participate, participants were then asked to complete a demographics questionnaire, and, based on these results were assigned a series of female- or male- specific questionnaires. The battery of questionnaires was estimated to take approximately 60 minutes to complete. The survey was created using the program *Survey Monkey* and was open to recruitment from March – June 2006.

RESULTS

Sexual Orientation and Relationship Status

There was no significant gender difference on self-reported sexual orientation, χ^2 (4) = 7.39, $p > .05$, with 80% of male respondents and 73% of female respondents indicating that their sexual orientation was asexual. Eleven percent of males and females identified as heterosexual. No females, but 3.7% of males identified themselves as homosexual. Two percent of female respondents and 2% of males chose bisexual as their sexual orientation. Eleven percent of respondents chose "other" as their sexual orientation and this was entered as text as either heteroasexual, biromantic asexual, homoasexual, and one respondent indicated "fetishist" as his sexual orientation. The majority of respondents did not feel distressed by their sexual orientation (85% males, 75% females), and this did not significantly differ between the genders, χ^2 (1) = 2.39, $p > .05$.

There were no significant gender differences in the proportion of respondents who were currently in a relationship, χ^2 (4) = 7.00, $p > .05$ with the majority of males (91%) and females

(74%) not currently in a relationship. When asked about their longest relationship duration, women tended to have a longer relationship duration than men, $t(128) = -2.04$, $p = .043$. Among those who were currently in a relationship, the relationship length was usually less than one year, and this did not differ by gender $\chi^2 (8) = 6.89$, $p > .05$. Among those currently in a relationship, 56% of the males and 23% of the females did not describe their relationship as heterosexual or homosexual. Instead, they were described as being biromantic/asexual polyamorous, heteroromantic, or homoromantic, with an emphasis on the romantic and not on the sexual.

Sexual Frequency Measures

Scores on the DSFI drive subscale were significantly higher for males than females, $t(136) = 4.70$, $p < .001$, with males scoring 6.51 (SD = 4.2) and females scoring 3.19 (SD = 3.6), out of a maximum possible score of 9. Only 29% of the total sample indicated that they recalled when they first became interested in sexual activity, and this age did not differ between males (mean age 14.0) and females (mean age 14.4), $t(52) = -0.280$, $p > .05$. The majority of respondents (73%) had never engaged in intercourse. Among the 27% of respondents who indicated that they have had sexual intercourse, males had their sexual intercourse debut at a significantly older age (mean age 22.5, SD = 7.3) than females (mean age 19, SD = 5.0), $t(48) = 1.95$, $p < .05$, and the ideal frequency of sexual intercourse for males (1-2 times/year) and females (0-1 times/year) did not significantly differ, $\chi^2 (7) = 8.91$, $p > .05$.

Despite these low intercourse frequencies, 80% of males and 77% of females reported that they engaged in masturbation, with males reporting a significantly greater masturbation frequency than females, $t(144) = 8.90$, $p < .001$. The average frequency was a few times per week for males and less than once per month for females.

There were also significant gender differences in the frequency of kissing/petting, $t(134.9) = -2.76$, $p = .007$, and sexual fantasies, $t(61.7) = 3.21$, $p = .002$, with females reporting significantly more kissing/petting, and males reporting significantly more sexual fantasies. However, both groups reported a low overall frequency of these behaviors (kissing/petting frequency of less than once/month, and fantasy frequency 1-2 times/month for males and less than once/month for females).

Sexual Response and Distress

For women, the mean FSFI total score was 10.63 (SD = 7.7) and 93% of women who responded to all items (so that a total score could be calculated) ($n = 44$) scored below the clinical cutoff score of 26.55 indicating significant problems with sexual response. Mean scores on each FSFI domain are presented in Table I.

Insert Table I about here

For men, all IIEF subscale scores were below the clinical cut-off score (< 25) indicating significant problems with erectile function. Mean scores for each IIEF subscale are presented in Table II.

Insert Table II about here

Sexual distress was below the clinical cut-off point for both men (mean = 5.02, SD = 9.8) and women (mean = 5.86, SD = 7.98), and did not significantly differ between the groups, $t(140)$

= -.053, $p > .05$. A total of 10% of respondents, with equal numbers of males and females, reported scores over the clinical cutoff score of 15 indicating significant sexual distress.

Pearson product moment correlations were computed between FSFI subscale scores and the FSDS (sexual distress) for women. Interestingly, there were significant positive correlations between sexual distress and desire, sexual distress and arousal, sexual distress and lubrication, and sexual distress and orgasm function, such that asexual women experienced higher levels of distress with increasing levels of each of these aspects of (functional) sexual response (See Table III). There was also a significant negative correlation between sexual distress and sexual satisfaction such that women experienced less distress with higher sexual satisfaction.

Pearson product moment correlations were computed between IIEF subscale scores (erectile response) and the SDS (sexual distress) for men. Interestingly, there was a significant positive correlation between sexual distress and desire, indicating higher levels of sexual distress with increasing reports of sexual desire. None of the other IIEF subscales significantly correlated with sexual distress. There was also a significant negative correlation between sexual distress and overall sexual satisfaction, such that men experienced less distress with higher sexual satisfaction (See Table III).

Insert Table III about here

Psychiatric Symptoms and Personality

Significantly more females (20.6%) than males (9.3%) self-reported having been diagnosed with a psychiatric disorder χ^2 (1) = 3.44, p = .046. Depressive scores, as measured by the BDI, did not significantly differ by gender, $t(140) = -0.195$, $p > .05$ and were in the non-

clinical range for both men (mean = 6.80, SD = 7.7) and women (mean = 7.10, SD = 8.32). Closer inspection revealed that 2.8% of respondents scored in the severe depression range, 3.5% scored in the moderate depression range, 18.3% fell into the minimal range, and 75% fell in the non-depressed range.

Alexithymia was computed with the overall score on the TAS-the mean of which fell below the clinical cut-off score of 61 (Mean = 47). Males and females did not significantly differ from each other, $t(137) = -0.498$, $p > .05$, with males scoring 47.6 (SD 13.1) and females scoring 46.5 (SD 10.5). Using the clinical cutoff, 12.2% of respondents would be considered alexithymic, 65.5% nonalexithymic, and the remaining 22.3% fell in the intermediate area (with a score between 51 and 60). The scores on the three TAS subscales revealed that there was no difference between males and females in Factor 1, Difficulty identifying feelings, $t(107) = 1.08$, $p > .05$. However, males had higher scores than females on Factor 2, Difficulty describing feelings, $t(109) = 2.48$, $p = .015$. Factor 3, Externally-oriented thinking, showed no significant difference between males and females, $t(106) = 0.65$, $p > .05$.

On the PAS, there was no significant gender difference on the PAS total score, $t(132) = .94$, $p > .05$. Those scoring greater than 19 (the clinical cut-off on the PAS total score; 56.3% of the total sample) had each of their domain scores converted into *T* scores and analyzed in more detail. A *T* score greater than 75 on any individual domain indicates a high probability of that domain being elevated if the individual were assessed with the full PAI. Among these respondents with a total (raw) score greater than 19, the most frequently represented subscale was Social Withdrawal (e.g., discomfort in relationships and social detachment), seen in 80% of this group (males T score mean = 90.1; females T score mean = 88.5, where a *P* score greater than 74.9 indicates marked elevation). The remaining PAS subscales were in the moderate range,

with Anger Control being the next most common experience reported in 75% of this subgroup, followed by Suicidal thinking in 52%. Alienation, Hostile Control, Negative Affect, Health Problems, and Psychotic Features each had *T* scores that just met the clinical cut-off for moderate symptoms requiring further investigation. Across all PAS subscales, there was only a significant gender difference for Negative Affect, $t(136) = -2.41$, $p = .017$, where women had higher Negative Affect scores than men.

Interpersonal problems, as measured by the IIP, are significant in cases of a *T* score greater than 60, and are markedly significant in cases of a *T* score greater than 70. The subscales with clinically elevated domains were: Cold/Distant for men ($T = 61.16$), and Social Inhibition for men ($T = 63.0$) and women ($T = 63.25$). All other IIP subscales fell in the non-clinical range.

Social Desirability

Males and females significantly differed on Impression Management on the BIDR, $t(126) = -2.51$, $p = .013$, such that males had significantly higher scores (mean 9.8, SD = 3.4) than females (mean = 8.2, SD = 3.2). BIDR Self-Deception scores were low and did not significantly differ between the genders, $t(125) = -0.07$, $p > .05$. The range on this scale is 0-20 and scores on both domains fell in the non-clinical range suggesting a lack of socially desirably responding.

DISCUSSION

Fifty-four males and one hundred thirty-three females recruited from AVEN completed on-line questionnaires assessing sexual behavior and response, sexual distress, psychopathology, personality, and socially desirable responding. Interestingly, only 80% of the males and 73% of the females selected “asexual” when presented with a forced-choice question about their sexual orientation. This is despite the fact that we recruited from AVEN, a web-community devoted to

asexuals, and that participants had to endorse the asexual label before being routed to the questionnaires. An examination of their responses to a question about the nature of their relationship-for those asexual individuals who were currently in a relationship-may help to interpret why not all participants selected asexual as their label. The majority described their relationships with a focus on the romantic (e.g., heteroromantic) as opposed to the sexual (e.g., heterosexual). Thus, the 11% who did not endorse asexual as their label may have been deterred by the focus on "sexual" in asexual, and preferred to conceptualize themselves and their relationships according to romantic orientation. Because this finding suggests that the language used to self-identify is important, and that asexuals may prefer to conceptualize their relationships in romantic as opposed to sexual terms, it would be important and interesting to explore the labels and meanings that asexual individuals give to themselves and their relationships in more detail. Of note, the majority of the sample denied being distressed at their asexual orientation.

In our question about the age of sexual intercourse debut, many individuals indicated that they could not recall the onset of sexual interests. This lack of recollection of first sexual interests and experiences might be important if one considers that puberty for humans marks a significant developmental stage where the initiation of sexual feelings and behaviors is an important aspect (Udry, 1988). This suggests, perhaps, a developmental trajectory whereby the lack of sexual interests in early adulthood may set the stage for later lack of sexual desire or excitement. A greater understanding of the pubertal experiences of asexual individuals from a qualitative perspective may shed light on this issue.

Among the 27% of asexuals in the present sample who had engaged in sexual intercourse, they maintained that they lacked sexual attractions despite engaging in sexual behavior. If one adopts the definition of asexuality forwarded by Rothblum and Brehony (1993), focusing on an absence of sexual activity, this subgroup may have been misclassified as being sexual. The fact that one quarter of the sample engaged in intercourse despite affirming that they had no sexual attraction whatsoever is puzzling, and one might question their motivations for having intercourse. However, in light of recent findings in which young adults provided a variety of reasons for engaging in sexual intercourse, including several that appear unrelated to sexual attraction (e.g., it was a favour to someone, I felt sorry for the person, I wanted to get out of doing something, I wanted to manipulate him/her into doing something for me) (Meston and Buss, 2007), the fact that asexuals could continue to engage in intercourse despite such a lack of sexual attraction may well be within the normal experience. In addition, masturbation frequencies were high, and between 73-80% of females and males, respectively, had engaged in masturbation. The average frequency was a few times/week for males, and once/month for females. Sexual intercourse and masturbation that are stripped of sexual attraction might, therefore, have an alternate goal. For example, is masturbation a way of reducing tension or getting to sleep? Is sexual intercourse without attraction motivated by a fear of a partner's negative backlash or by the belief that sex is simply something one does as part of a "normal" relationship, even if one does not enjoy it? Such speculations might best be explored using qualitative inquiry.

The majority of the sample (90%) denied having sexual distress whereas 10% fell into the clinical range on this measure. Because the FSDS, which we adapted for men in the current study, had been developed and validated on a sample of non-asexual individuals, the extent to which it

is a valid measure of sexual distress for asexuals is open to debate. Also, because distress over having an asexual orientation was low in the majority of individuals, this suggests that distress-if any-might stem from the interpersonal consequences/aspects of asexuality, rather than being related to personal consequences. Whereas it has been speculated that asexuality might overlap with sexual desire disorder (Prause & Graham, 2007), these states can be differentiated on the basis that the person with low desire experiences distress whereas the asexual does not. Thus, because the asexual does not have a sexual disorder, per se, the implication is that there should be less stigma. Whether or not asexuals feel they are stigmatized on the basis of their asexuality would be interesting to explore in a qualitative study.

We explored scores on the various aspects of sexual response with the FSFI in women and IIEF in men. All subscale scores were below the clinical cut-off for sexual dysfunction and 93% of women had a total FSFI score below the clinical cut-off of 26.55 suggesting the presence of a sexual dysfunction. Because low scores on the arousal, lubrication, orgasm, and pain domains may simply be an artifact of not having had sexual intercourse in the past four weeks, these low scores may give the illusion of significant sexual dysfunction when, in fact, none may exist. The low score on the desire subscale (which is not dependent on sexual activity) is not surprising. Also, although sexual satisfaction scores were below the clinical cut-off, they were only marginally below, indicating that the lack of sexual response does not necessarily translate into impaired satisfaction. For men, all domain subscales were similarly in the low (i.e., clinical) range. Like for women, such low scores may reflect the absence of sexual activity rather than being due to a sexual dysfunction, per se.

To explore the impact of sexual response on sexual distress, we correlated subscales from the FSFI and IIEF with the sexual distress measure. For women, there was a positive correlation

such that sexual distress increased with increasing sexual desire, arousal, lubrication, and orgasmic function. For men, sexual distress increased as sexual desire increased. These paradoxical correlations suggest that the presence of a sexual response is distressing for the asexual individual. Perhaps overt indicators of sexual response (e.g., lubrication or erection) are viewed negatively, since they may be experienced as the body defying oneself-as in the condition where a woman being sexually assaulted may experience physiological arousal (Malamuth, Heim, & Feshbach, 1980). The meaning of that association is unclear, however, and may be the subject of a qualitative inquiry.

Regarding responses to the question of participants ever having been diagnosed with an Axis I psychiatric disorder, about half as many men as women indicated so (20.6% for females and 9.3% for males), however, these rates are not significantly different from national base rates for psychiatric illness (Kessler et al., 2005). Depression was in the low and non-clinical range for men and women, and alexithymia scores were below the clinical cut-off, even though the genders significantly differed on the "difficulty describing feelings" subscale. The brief personality measure indicated that 56.3% of the sample had an elevated raw total score, so their individual domain scores were explored in more detail. Among this subgroup, social withdrawal was the most notable domain, with 80% of this subgroup scoring in the significant clinical range. This suggests that if the full version of the PAI (Morey, 1991) were administered, scores reflecting a socially inhibited personality would likely be apparent in at least half of asexual individuals. Among the eight subscales of the Inventory of Interpersonal Problems, only the Socially Inhibited domain was elevated for both men and women in the moderate range. In addition, males only had significantly elevated scores on the Cold/Distant domain of the IIP. The PAS and IIP data together support possible categorization to Cluster A of the personality

disorders. In particular, Schizoid Personality Disorder, characterized by emotional coldness, limited capacity to express warm feelings towards others, and lacking desire for close, confiding relationships (American Psychiatric Association, 2000) might be related to asexuality. A more detailed exploration of this association was the aim of Study 2.

Because of the possibility that asexual participants may have distorted their answers to give a certain impression of the characteristics of asexuals, particularly in light of recent media attention that has, in some cases, taken a critical stance towards asexuality (e.g., Montel Williams show in 2006), we explored scores on a measure of socially desirable responding (Paulhus, 1988). Scores on both the Impression Management and Self-Deception subscales of the BIDR were not elevated for males and females suggesting that social desirability did not influence their questionnaire scores.

Unsolicited feedback from some of the participants to the AVEN discussion board was forwarded by the founder of AVEN to the researchers. Some of these reports indicated that subjects felt compelled to underrate their psychiatric symptoms in hopes of minimizing any relationship between asexuality and psychopathology that the researchers may have hypothesized. Moreover, other unsolicited feedback suggested that participants felt that many of the questionnaires were more appropriate for individuals with sexual attractions, and were therefore irrelevant to an asexual person. This feedback, along with the number of new research questions generated from Study 1, prompted the design of Study 2.

Study 2

The goal of Study 2 was to explore some of the findings from Study 1 in more detail by using a qualitative design. Increasingly, sex researchers are integrating qualitative with quantitative designs (e.g., Graham, Sanders, Milhausen, & McBride, 2004; Prause & Graham,

2007; Reece, Milhausen, & Perera, 2006; Tolman & Szalacha, 1999), as this method may lead to greater knowledge of poorly understood constructs (Tolman & Szalacha, 1999). In our study, a subsequent qualitative phase allowed us to ask the participants themselves for clarity on some of the more puzzling findings. For example, that a sizable proportion of the sample indicated "other" instead of "asexual" as their sexual orientation, and described their relationships as hetero- (or homo or bi) romantic suggests that the ways in which asexuals conceptualize relationships has a bearing on their own sexual identity. Moreover, that sexual distress was a feature of asexuality in only a minority of the sample despite rather low ratings of sexual response is intriguing and indicates that the threshold at which poor sexual response becomes distressing may be different for asexuals vs. sexuals. Although Prause and Graham (2007) conceptualized asexuals as having low sexual excitation, masturbation frequency was manifest among our sample, suggesting that the motivations for masturbation may not stem from an intrinsic desire or sexual excitement. Finally, that social inhibition and withdrawal, both symptoms characteristic of the Cluster A Personality Disorders (American Psychiatric Association, 2000), were elevated among asexuals deserves greater exploration. A qualitative methodology allowed us to probe each of these assertions in more detail, and permitted us to explore unifying themes emerging from what appeared to be, in Study 1, a rather heterogeneous group.

METHOD

Participants

Participants from Study 1 were recruited for Study 2. They were informed about the procedures following their participation in the web-based survey, and were asked to leave their email with their completed questionnaires to be contacted by a member of the research team. The

first 15 individuals who were contacted via email and agreed to participate in Study 2 formed the sample. Participants were 4 men and 11 women with an age range of 20-57, and lived in various countries, including: United States, Germany, England, Canada, and New Zealand. Our sample size was guided by the suggestion that at least six participants are needed for a phenomenological approach, but that recruitment should continue until there is saturation in themes (Sandelowski, 1995).

Procedure

Interview dates and times were scheduled via e-mail by the study assistant (K.R.), who also conducted all interviews via telephone. A list of pre-established questions was asked of all participants, and based on the replies of experiences shared by participants, follow-up questions were probed. Participants' results from their questionnaires were not made known to the interviewer. Individuals were told that the purpose of the interview was to gain a better understanding of the experiences of asexuals. Asexuals were invited to describe their own sexuality in whatever words they chose. They were asked to provide examples of sexual experiences or behaviors to exemplify their descriptions. While sharing their lived experiences, they were also asked the following probing questions: Would you consider asexuality to be a sexual orientation? What are your beliefs about the associations between asexuality and low sexual desire? What is the link between asexuality and personal distress for you? Is there a link between religion and your asexuality? Describe your fears associated with sexuality? What are your feelings about yours and others' genitals?

The interview lasted 30-90 minutes and participants were paid a $50 honorarium. The telephone interview was digitally recorded and later transcribed by a professional transcription service.

Data Analyses

Content analyses (van Manen, 1990) were used to explore the interview material following professional transcription of the data. A team of three investigators, who were not involved in conducting the interviews, initially read each interview and noted general impressions of the transcripts in the margins. A meeting of the three raters then took place in order to discuss the preliminary reactions and formulate a tentative list of themes. The raters then used the 10 themes to re-read the interview transcripts and to code passages of text that directly corresponded to those themes. Raters paid attention to which themes were not readily apparent in the transcripts, and documented if they believed there were additional themes, not previously discussed, present in any particular transcript that deserved more systematic exploration. A third meeting of the reviewers was used to review passages of text corresponding to each of the themes and to resolve discrepancies. Inter-coder reliability was established by discussing discrepancies and resolving them as a team in line with the guidelines for analysis developed for each theme.

RESULTS AND DISCUSSION

A total of 10 topics emerged from the analyses as being the most meaningful themes. Each of these will be discussed in turn.

Theme 1: Definition of Asexuality

There was a consistent aspect of how the asexuals defined asexuality. A “lack of sexual attraction” was evident in nearly all interviews, and individuals distinguished this lack of attraction from other aspects of sexual response which may still have been present, such as

sexual desire. If sexual desire or arousal were present, individuals argued that they were not "directed" at anyone, and it is the latter that characterizes asexuality:

> I have a sexual drive that comes up regularly through my hormonal cycle, before I menstruate, there are times when I feel aroused, but it is not directed towards any individual.
>
> [Participant 08]

Another recurrent theme around definitions of asexuality was that there was a lack of anticipation leading up to any sexual experiences, and such a lack of anticipation, they argued, is what differentiated sexuals from asexuals. Notably, there was still excitement and anticipation for other (non-sexual) activities, thus, this did not appear to be a general blunting of all excitement:

> I think sexuals have a lot of anticipation and pleasure leading up to the sexual experience. I don't have any of that. I could do without it. Even though it is very pleasurable and exciting while I am doing it, I have absolutely no anticipation for it at all. I have no interest or desire that would lead me towards that in the way that I do towards other activities that I enjoy.
>
> [Participant 08]

> I could be attracted to someone. I can…you know, think they're good looking and think they're interesting and want to spend time with them and get to know them better. But to me it's never, oh, yeah, I hope we end up in bed.
>
> [Participant 02]

Prause and Graham (2007) argued that the lack of sexual attraction was related neither to a fear of sexual activity nor to a fear of forced sexual activity. This was replicated in our findings

where individuals reported enjoying and looking forward to romantic contact, but having no interest in, rather than avoiding, sexual activity.

Theme 2: Feeling Different

A sense that one has always been different than others was also apparent throughout most of the interviews. Several talked about puberty and how their experiences contrasted with their friends in that they did not experience intense sexual urges or interests, and they could not understand "what the fuss was about":

> I always knew that I was different and I always knew that I didn't have that interest like my friends had…I always had this babysitting job and I though it was great because they would always give me a huge tip, but then my friends would go, 'oh we went to this really cool party and everybody was making out and it was so much fun and you should come next year'. I would make a point of getting a babysitting job because there was no way I wanted to be in that kind of environment because I…I just didn't want to.
>
> [Participant 03]

Some elaborated on the theme of feeling different by noting that although they could not relate to their peers' sexual interests, they were unaware at the time that they may be asexual. Many added that once they discovered AVEN, and the large community of other asexuals, they felt that the asexual label explained them and their experiences completely. There was also strong agreement that asexuality was a sexual orientation with biological roots. Some felt that if the biological underpinnings of asexuality could be proven, then stigma associated with asexuality would lessen.

Theme 3: Distinguishing Romantic from Asexual Relationships

It was not the case that asexuals did not desire any kind of relationship, and there was a careful distinction between romantic versus sexual aspects to relationships. Several reported wanting the closeness, companionship, intellectual, and emotional connection that comes from romantic relationships, and in this regard, they were much like sexual individuals who crave closeness and intimacy. Many also discussed hopes of marrying one day, of having a "life partner", and possibly of having children.

> Basically I just enjoy being close to someone and spending time with them and doing things that make them happy. Not sexually….. Well like I like being touched and held but I just don't really want to do anything sexual if that makes any sense. Like I desire to be held and like to cuddle and stuff but not to have sex.
>
> [Participant 01]

The desire for a romantic relationship was not universal in our sample, however. Some indicated that they desired neither sexual nor romantic interactions. Among those who did desire a romantic relationship, they defined those relationships according to romantic as opposed to sexual attractions (e.g., hetero-romantic instead of hetero-sexual).

> Everyone's definition of sexual activity is somewhat different but I mean asexual people just aren't interested in intercourse and there are all different levels of how far they'll go…there are some asexuals who are aromantic and they don't want anyone to touch them and they hate being touched at all….in asexuality there is the same types of romances there is with sexuality. There's aromantic, heteroromantic, biromantic, and homoromantic and their sexualities could differ and what they desire could differ. It just depends on the person.

[Participant 01]

Theme 4: Asexuality is not another Disorder "In Disguise"

Many opposed the notion that asexuality was a symptom or component of another disorder, including hypoactive sexual desire disorder (HSDD). Because asexuals lack interest in sexual activity, and the defining feature of HSDD is a distressing lack of interest (American Psychiatric Association, 2000), it was speculated that asexuality may represent the lower polar end of the desire continuum (Bogaert, 2006). The current sample resisted this explanation and noted that an important difference between them is that those with HSDD still have a sexual attraction for others, whereas asexuals do not. In addition, as borne out in our quantitative data, levels of sexual distress for the majority of participants fell below clinical cut-off scores, and this was supported in the interviews.

> I've never had the interest and so, even if today you could say, 'oh here…here's a pill that will fix you'…no, that's okay, thanks.

[Participant 03]

There was resistance to labeling asexuality as any type of disorder because of the emphasis on the pathological aspects of the term. Instead, the sentiment was that if asexuality were more accurately considered as an orientation, and not as a disorder, that this would reduce stigma and enhance nonjudgmental research into asexuality.

Theme 5: Overlap with Schizoid Personality

We found in Study 1 that social withdrawal featured strongly among a subset of the sample. Given that the Personality Disorders considered within Cluster A of the DSM-IV are characterized by social withdrawal, we probed this further throughout the interviews.

Specifically, participants were asked about the extent to which they could relate to some of the features of Schizoid Personality Disorder, which include having little interest in sexual experiences, emotional coldness, limited capacity to express warm feelings towards others, and lacking desire for close, confiding relationships. Some asexuals noted that several of the members of AVEN were introverts, and therefore fit the descriptions of the Cluster A personality disorders. In our probing, seven of the 15 participants felt that they personally met criteria for Schizoid Personality Disorder:

> To, at least a moderate extent, I pretty much match all of them [referring to Schizoid criteria]…although I've never been formally diagnosed and probably never will…I am pretty sure that if I did walk in, they would probably diagnose me with Schizoid Personality Disorder.
>
> [Participant 11]

Interestingly, whereas we did not specifically solicit the information, a number of participants suggested that many asexuals might also fit the criteria for Aspergers Disorder, which is characterized by having more pervasive problems with social interactions (as well as stereotyped patterns of behaviors). One participant noted that this was discussed widely on the AVEN discussion board, and that researchers might turn there for preliminary research on the topic. As we did not probe this information from all participants, this possible link requires further exploration in the future.

Theme 6: Motivations for Masturbation

We specifically probed experiences with masturbation and the rationale for engaging in this behavior given that some of the negative media attention to asexuality has focused on this. Specifically, the criticism has been that asexuality is an inappropriate label for an individual who

continues to engage in intentional and planned sexual activity. A sizeable proportion of the interviewees (but by no means all) admitted to masturbating and this was proportionately higher in males than in females (as is the case in the general population; Oliver & Hyde, 1993). There was a strong sentiment that "sex with oneself" was qualitatively different from sex with another in that the former can exist without a sexual attraction. Furthermore, in masturbation, the motivation stemmed more from physical/physiological needs rather than from emotional or relational reasons:

> Even though they [an asexual] might want to clean out the plumbing once in a while, they don't have any interest in doing it with someone else. …so that would…you know, that would qualify [as an asexual].
>
> [Participant 04]

At least a third of respondents had great discomfort in talking about masturbation and one individual elected not to talk about his motivations for masturbation. This suggests that just as there may be confusion in the non-asexual community about why an asexual might desire masturbation, there may also be embarrassment, guilt, shame, or other negative emotions associated with reasons for masturbation, or associated with the consequences of masturbating. One might conclude that such reluctance around talking about masturbation might even be more pronounced than in a sexual individual given that an open acknowledgment of masturbation might threaten one's asexual identity. Although this possibility was not probed in the current study, it deserves greater exploration in the future.

Theme 7: Technical Language

In discussing their experiences with masturbation, it was highly evident that the language used to describe masturbation, sexual intercourse, and their bodies was void of any pleasurable or sexual affect. Instead, these experiences were discussed in more of a technical, emotionally-stripped manner. This was the case when individuals were discussing emotional changes at puberty, sexual arousal, and feelings for their genitals, among other sexual domains. For example:

> Puberty, well uh, you know I had the hormones, uh stuff starting working there but I really didn't have anything, nothing to focus it on. I did you know test the equipment so to say and everything works fine, pleasurable and all it's just not actually attracted to anything.
>
> [Participant 02]

> Yeah, I'd say I was…well I would say I was lubricated I guess…but enough? It's hard to know. Um…you know, I mean like the plumbing works, let's say, if you want an expression…… Well, I don't know if I'd call it aroused. I mean, just because I'm lubricated doesn't necessarily mean I'm aroused.
>
> [Participant 13]

In reference to their feelings about their genitals, several stated that "they are just there". For some with artistic backgrounds, they stated being able to appreciate the artistic value of the genitals, but that this was not sexual. Most noted that the genitals neither "bother" nor "excite" them, and disgust with genitals did not play a role in their asexuality. Notably, these emotionally-bare descriptions were specific to discussing sexual activity, and not to other aspects of the individual's lives. Thus, corroborating our findings from Study 1, it did not appear that asexuals were, in general, alexithymic, or void of the ability to experience emotions.

Theme 8: Negotiating Boundaries in Relationships

In study 1, 26% of females but only 9% of males were currently in a relationship; however, several had reported previously being in relationships. Some asexuals had been/were currently in relationships with another asexual. In such cases, there was little need for negotiating sexual activity since both partners were presumably uninterested in sex. Among those individuals paired with an asexual partner, respondents talked about the advantage of not having to contend with "the messiness" of relationships. They reported being able to be naked and physically close to their partners without the pressure or expectation that it would lead to intercourse. Among those couples where a partner was sexual, the asexuals talked about having to negotiate what types of sexual activities they were willing to take part in, the frequency, and the boundaries around the relationship in the event that the asexual did not engage in any sexual activity with his/her sexual partner.

> You know, the only reason I do it [intercourse] is to make the other person happy. And so, we were in a relationship and you know, he wanted to do it and we had been dating for a while and you know, I was in love or whatever and I thought we'll be together forever. So um…yeah, so we kind of planned it and that's…yeah…I mean it wasn't…I mean the way he was talking about it, oh it's so great and you're going to love it, blah, blah, blah, and then okay…you know, I believed him…..
>
> [Participant 14]

Although asexuals rejected the notion that they were engaging in nonconsensual sexual activity with their sexual partners, their consensual sexual activity was unwanted, much like that has been described for heterosexual dating samples in which one study found the prevalence of

such unwanted but consensual sexual activity to take place in 38% of the sample (e.g., O'Sullivan & Allgeier, 1998). The topic of sexual ambivalence (i.e., exploring the many dimensions of wanting and not wanting sex; Muehlenhard & Peterson, 2005) might be of relevance to explore among those asexuals who consent to sexual activity with their sexual partners. Among these asexual-sexual pairings, the asexual participants added that sexual activity did not help them to feel closer to their partners in the way that their (sexual) partners described. This was captured by the following quote from a woman:

> [My boyfriend said to me] 'oh gosh, I would like to crawl into you', and I said, 'wow, I would like to crawl into you too!'. And then he said that maybe that's what sexual feelings are, when I want to have sex with another person – that is the ultimate "crawling into". And then I said, "well, aren't sexuals then disappointed when they find out that they have gone through all of this trouble to crawl into a person and then finally they have just had sex and are still not in the other person?"
>
> [Participant 10]

At least a few of the respondents who engaged in sexual activity reported having to focus on something else while being sexual and this made the asexual person experience only the physical stimulation aspects of sex, stripped of the intimacy. One woman discussed having mythical fantasies during intercourse that served as a way to take her mind away from the act of sex. Another asexual woman who spoke about sexual activity she engaged in with her sexual partner described it as a curiosity not triggered by anything sexual. The technical, emotionally-stripped language was also highly apparent in her description:

> Well, because he is sexual and I am asexual, we have tried to see what our body parts do to each other, trying to find out what body positions are most appropriate for us, or what

> kind of feelings it brings about when we touch that body part…while touching my genitals doesn't do anything to me either, but I like very much them being very close to his, when the whole body is connected with the other body.
>
> [Participant 10]

Infidelity was a feature of asexual relationships, however, the unfaithfulness was discussed as being focused more on having romantic attractions with someone else as opposed to having sexual attractions and activities with another. Some of the respondents indicated that if a sexual partner wished to (or needed to) have sexual activity, the asexual would be accepting of that person seeking it outside of the relationship, on the condition that the sexual relationship did not become emotional. There was a great deal of variability across the participants in the extent to which they were unbothered by a partner's sex with another person outside the relationship:

> Basically in a sexual relationship cheating on someone is if the person has sex with someone else. In a purely romantic relationship cheating would just be like if I have a boyfriend who considers himself in love with another girl and like he goes and sees her and kisses her and stuff and cuddles with her and tells her he loves her.
>
> [Participant 05]

Theme 9: Religion

It has been speculated previously that religious prohibitions against sexual activity might underlie the experiences of some asexuals. In other words, is the expressed resistance against sexual attraction and sexual activity a manifestation of moral or religious feelings about sexuality? We probed this among our current sample and found, contrary to our predictions, a disproportionately high number of atheists in our sample. When questioned about this link between asexuality and atheism, one individual explained it by:

> I think it [atheism and asexuality] might be related. I do think that because asexuals are forced to realize that they are different and they know they are different than everybody else, they have to think about something that is perfectly natural for everybody else, I think it does sort of encourage a nonconformist streak in people to where if they have any tendencies whatsoever to be skeptical, then they are going to go that way… And a lot of religions place a lot of value on marriage and appropriate gender roles to include sex, so you can imagine somebody growing up asexual who doesn't want to have a relationship or who doesn't want to get married or doesn't want to be fruitful and multiply…It would be easier for them to reject the religion and become atheist.
>
> [Participant 06]

Theme 10: A Need to Educate and Destigmatize

There has recently been a vast amount of media attention focused on asexuality, and in part, this stems from a strong desire among asexuals to educate the public about what is asexuality. Because some of the recent media attention has been negative, members of the AVEN community see it as part of the "visibility and education" efforts of AVEN to liaise with researchers to conduct scientific trials on asexuality, in particular if those studies have the result of reducing stigma.

> Well, I think that it's [asexuality] really not perceived and that's the problem and that's why like we need the [AVEN] message board and all the news reports and stuff because nobody or very few people know that it exists or have heard of it .
>
> [Participant 09]

AVEN also was viewed as having the function of being a place to brainstorm on theories of asexuality and propose ideas for future study. AVEN members have even initiated a separate asexuality list-serv group for sexuality researchers. Some of the participants indicated that they encouraged researchers to use the AVEN discussion board as fodder for future studies. Another educational function of the AVEN website was to provide information and a sense of community for individuals who felt different, but who did not know enough about asexuality to feel like he/she could identify with it. Some talked about a sense of relief upon discovering AVEN, particularly in finding that many others had also experienced a non-distressing lack of sexual attraction like them.

> I am very keen on getting the word out because had I known years ago my life could have been so different. I always knew that I was different and I always knew that I didn't have that interest like my friends had. But I never heard of asexuality. I didn't realize that I could say, hey, I'm asexual, you know…go away.
>
> [Participant 06]

CONCLUSION

The results from these studies suggest that the definition of asexuality must encompass a lack of sexual attraction, however, it does not necessarily include a lack of sexual behavior. As indicated on the AVEN website, each individual experiences and expresses sexual desire, arousal, and behavior somewhat differently. This was borne out in the current studies where there was a great deal of variability in sexual response and behavior.

Our study also replicated and expanded upon several of the findings from Prause and Graham (2007). For example, asexuality does not appear to be a fear-mediated construct, and the

lack of sexual activity is not related to avoidance or disgust when considering the genitals. Several of the transcripts also supported the finding by Prause and Graham (2007) that asexuals have low levels of sexual arousability or excitement. Many discussed the lack of anticipation of sexual activity and this bears some resemblance to women described in the publications by Basson (2000, 2002) who lack sufficient reasons or incentives for responding to a partner's sexual advances. It may be possible that one subgroup of asexuals represents those at the polar end of the sexual desire spectrum, and that encouraging them to work on anticipating sexual activity may bring them above the threshold to a place where the distress prompts them to seek attention. Future studies should attempt to explore in more detail this possible overlap, seeking to distinguish low sexual desire from no sexual desire.

There was also a great deal of heterogeneity in the sexual behaviors our sample engaged in. Some had rather frequent sexual intercourse and others have never had sexual intercourse. There was a general sentiment that since you could have sex without love, why could you not also have love without sex? Among those who were currently sexually active, many talked about motivations for intercourse stemming from the partner rather than from the asexual's own reasons, akin to that found also among sexual-sexual relationships (Muehlenhard & Peterson, 2005; O'Sullivan & Allgeier, 1998). Some also talked about wanting to preserve some sexual activities in an effort to "seem normal". Among those in relationships with a sexual, the theme of negotiating the boundaries within that relationship was apparent. Communication was an essential element in the early stages of asexual-sexual partnerships to establish the rules around touching and sexual activity. Finally, there was a very apparent motivation to educate the public, via media outlets, participating in research, and through AVEN, to bring awareness about

asexuality and to destigmatize those who are asexual. Several talked about the role of AVEN to that regard.

There are obviously a number of unanswered questions arising from this research that require further study. The potential overlap between hypoactive sexual desire and asexuality remains unclear. It is possible that a subsample of those with HSDD, particularly those with lifelong HSDD (Bogaert, 2006) may in fact be asexual and that some asexual individuals may better fit the criteria for HSDD. Just as some individuals experience sexual difficulties without distress, and there may be sexual distress without any manifest sexual problems (Bancroft, Loftus, & Long, 2003), this suggests that a more thorough examination of the construct of distress may be at the heart of this exploration among asexuals.

A sizable proportion of the sample had previously been in and were currently in (at the time of this study) romantic relationships. Study 1 showed that 11% defined their relationships with a focus on the romantic (i.e., hetero-romantic), and not the sexual (i.e., heterosexual). Moreover, their descriptions of the qualities they seek in a romantic partner were not at all different from those described by sexual individuals. Because sexual desire and romantic love are independent (Diamond, 2003) , it is possible to have love without sex, just as one can have sex without love. By studying the developmental period in adolescence during which sexual desires and romantic love become interconnected (Furman & Wehner, 1994; Hazan & Zeifman, 1994) this may shed light on their separateness for asexuals.

The link between Schizoid Personality, and possibly Aspergers, is also intriguing and deserves further study. The qualitative data provided a valuable opportunity to explore asexuals' experiences and thoughts around Cluster A personality features. Further qualitative inquiry is

needed in this group, possibly with a focus on the text contained on the AVEN message boards, where more candid dialogue might shed light on this possible association.

Finally, the fact that all asexuals interviewed believed that asexuality was biological and that there may be a genetic component to it deserves further study. There was also the very strong sentiment that it should be conceptualized as a sexual orientation, as suggested also by Bogaert (2006). Sexual psychophysiological techniques (e.g., vaginal photoplethysmography, penile plethysmography), as well as digit ratio, handedness, and birth order mapping in asexuals may be worthwhile avenues to pursue in the future in hopes of exploring some of the physiological and biological aspects of asexuality.

Overall, this study illustrated a number of personal and sexual characteristics of asexuals (Study 1) and illuminated these characteristics in more depth using detailed interviews (Study 2). The findings suggest that asexuals are a mentally healthy group who continue to seek out and engage in rewarding, emotionally connected relationships. They may be more likely to question conformity, as illustrated by their atheism, and they may be more likely to focus on the technical experiences of self-sexual activity. There is strong motivation for conceptualizing asexuality as a biological, perhaps genetic, sexual orientation, and as such, asexuals are highly invested in working with sex researchers to execute this important research. Longitudinal research designs, as have been conducted in exploring other facets of sexual orientation development and change over time (e.g., Diamond, 2005), might be key to better understanding the development and trajectory of asexuality. Moreover, as was shown in the present study, integrating qualitative with quantitative methodologies may be essential for defining the central characteristics of this poorly understood construct.

REFERENCES

Alden, L. E., Wiggins, J. S., & Pincus, A. L. (1990). Construction of circumplex scales for the inventory of interpersonal problems. *Journal of Personality Assessment, 55*, 521-536.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (*4th ed., text rev.). Washington, DC: Author.

Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (1994). The twenty-item Toronto alexithymia scale-I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research, 38*, 23-32.

Bancroft, J., Loftus, J., & Long, J. S. (2003). Distress about sex: A national survey of women in heterosexual relationships. *Archives of Sexual Behavior, 32,* 193-208.

Basson, R. (2000). The female sexual response: A different model. *Journal of Sex and Marital Therapy, 26,* 51-65.

Basson, R. (2002). A model of women's sexual arousal. *Journal of Sex and Marital Therapy, 28,* 1-10.

Beck, A. T., & Steer, R. A. (1993). Manual for the beck depression inventory. San Antonio, TX: Psychological Corporation.

Bogaert, A. F. (2004). Asexuality: Prevalence and associated factors in a national probability sample. *Journal of Sex Research, 41*, 279-287.

Bogaert, A. F. (2006). Toward a conceptual understanding of asexuality. *Review of General Psychology, 10,* 241-250.

Brody, S. (2003). Alexithymia is inversely associated with women's frequency of vaginal intercourse. *Archives of Sexual Behavior, 32,* 73-77.

Chang, J. J. Sexless and Proud. (2006, March 23). *20/20.* Retrieved June 2, 2007, from http://abcnews.go.com/2020/Sex/Story?id=1759069&page=1

Derogatis, L. R. & Melisataros, N. (1979). The DSFI: A multidimensional measure of sexual functioning. *Journal of Sex and Marital Therapy, 5*, 244-281.

Derogatis, L. R., Rosen, R., Leiblum, S., Burnett, A., & Heiman, J. (2002). The female sexual distress scale (FSDS): Initial validation of a standardized scale for assessment of sexually related personal distress in women. *Journal of Sex and Marital Therapy,* 28, 317-330.

Diamond, L. M. (2003). What does sexual orientation orient? A biobehavioral model distinguishing romantic love and sexual desire. *Psychological Review, 110,* 173-192.

Diamond, L. M. (2005). A new view of lesbian subtypes: Stable vs. fluid identity trajectories over an 8-year period. *Psychology of Women Quarterly* , *29*, 119-128.

Furman, W., & Wehner, E. A. (1994). Romantic views: Toward a theory of adolescent romantic relationships. In R. Montemayer, G. R. Adams, & T. P. Gullotta (Eds.), *Personal relationships during adolescence* (pp. 168-195). Thousand Oaks, CA: Sage.

Graham, C. A., Sanders, S. A., Milhausen, R. R., & McBride, K. R. (2004). Turning on and turning off: A focus group study of the factors that affect women's sexual arousal. *Archives of Sexual Behavior, 33,* 527-538.

Hazan, C., & Zeifman, D. (1994). Sex and the psychological tether. In D. Perlman & K. Bartholomew (Eds.), *Advances in personal relationships: A research annual* (Vol. 5, pp. 151-177). London: Jessica Kingsley.

Horowitz, L. M., Alden, L. E., Wiggins, J. S., & Pincus, A. L. (2000). Inventory of interpersonal problems manual. Odessa, FL: Psychological Corporation.

Horowitz, L. M., Rosenburg, S. E., Baer, B. A., Ureno, G., & Villasenor, V. S. (1988). Inventory of interpersonal problems: Psychometric properties and clinical implications. *Journal of Consulting and Clinical Psychology, 56*, 885-892.

Janssen, E., Vorst, H., Finn, P., & Bancroft, J. (2002). The Sexual Inhibition (SIS) and Sexual Excitation (SES) Scales: I. Measuring sexual inhibition and excitation proneness in men. *Journal of Sex Research, 39,* 114-126.

Jay, D. (2005). Asexuality visibility and education network. Retrieved February 20, 2006, from http://asexuality.org/home/content/section/6/28/index.php?option=com_content&task=section&id=6&Itemid=28

Kessler, R. C., Demler, O., Frank, R. G., Olfson, M., Pincus, H. A., Walters, E. E., et al. (2005). Prevalence and treatment of mental disorders, 1990 – 2003. *The New England Journal of Medicine, 352,* 2515-2523.

Malamuth, N. M., Heim, M., Feshbach, S. (1980). Sexual responsiveness of college students to rape depictions: Inhibitory and disinhibitory effects. *Journal of Personality and Social Psychology, 38,* 399-408.

Meston, C. M., & Buss, D. M. (2007). Why humans have sex. *Archives of Sexual Behavior, 36,* 477-507.

Michetti, P. M., Rossi, R., Bonanno, D., Tiesi, A., & Simonelli, C. (2006). Male sexuality and regulation of emotions: A study on the association between alexithymia and erectile dysfunction (ED). *International Journal of Impotence Research, 18,* 170-174.

Morey, L. C. (1991). *Personality assessment inventory: Professional manual.* Odessa, FL: Psychological Assessment Resources, Inc.

Morey, L. C. (1997). *The personality assessment screener: Professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.

Muehlenhard, C. L., & Peterson, Z. D. (2005). Wanting and not wanting sex: The missing discourse of ambivalence. *Feminism and Psychology, 15,* 15-20.

Mustanski, B. S. (2001). Getting wired: Exploiting the internet for collection of valid sexuality data. *Journal of Sex Research*, *38*, 292-301.

Oliver, M. B., & Hyde, J. S. (1993). Gender differences in sexuality: A meta-analysis. *Psychological Bulletin, 114,* 29-51.

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

Paulhus, D. L. (1988). *Assessing self deception and impression management in self-reports: the Balanced Inventory of Desirable Responding.* Unpublished manual, University of British Columbia, Vancouver Canada.

Prause, N., & Graham, C. A. (2007). Asexuality: Classification and Characterization. *Archives of Sexual Behavior, 36,* 341-356.

Reece, M., Milhausen, R. R., & Perera, B. (2006). A theory-based approach to understanding sexual behavior at Mardi Gras. *Journal of Sex Research, 43,* 97-106.

Rosen, R., Brown, C., Heiman, J., Leiblum, S., Meston, C., Shabsigh, R., et al. (2000). The female sexual function index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. *Journal of Sex and Marital Therapy*, *26*, 191-208.

Rosen, R. C., Riley, A., Wagner, G., Osterloh, I. H., Kirkpatrick, J., & Mishra, A. (1997). The international index of erectile function (IIEF): A multidimensional scale for assessment of erectile dysfunction. *Urology*, *49*, 822-830.

Rothblum, E. D., & Brehony, K. A. (1993). *Boston marriages: Romantic but asexual relationships among contemporary lesbians.* Amherst: University of Massachusetts Press.

Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing and Health, 18,* 179-183.

Storms, M. D. (1980). Theories of sexual orientation. *Journal of Personality and Social Psychology, 38*, 783-792.

Tolman, D. L., & Szalacha, L. A. (1999). Dimensions of desire: Bridging qualitative and quantitative methods in a study of female adolescent sexuality. *Psychology of Women Quarterly, 23*, 7-39.

Udry, J. R (1988). Biological predispositions and social control in adolescent sexual behavior. *American Sociological Review, 53,* 709-722.

van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy.* Albany: State University of New York Press.

Wiegel, M., Meston, C., & Rosen, R. (2005). The female sexual function index (FSFI): Cross-validation and development of clinical cutoff scores. *Journal of Sex and Marital Therapy, 31*, 1-20.

Table I

Mean Scores on the Female Sexual Function Index (FSFI)

Scale	Mean	Standard Deviation	Scale Range
FSFI-Desire	1.43	0.55	1.2 – 6.0
FSFI-Arousal	0.83	1.58	0 – 6
FSFI-Lubrication	1.06	2.07	0 – 6
FSFI-Orgasm	0.90	1.77	0 – 6
FSFI-Satisfaction	3.55	1.03	0.8 – 6
FSFI-Pain	1.84	1.35	0 – 6

Note: Higher scores denote better sexual response

Table II

Mean Scores on the International Index of Erectile Function (IIEF)

Scale	Mean	Standard Deviation	Scale Range
IIEF-Erectile Function	7.84	7.44	1-30
IIEF-Orgasmic Function	3.47	4.09	0-10
IIEF-Sexual Desire	3.02	1.59	2-10
IIEF-Intercourse Satisfaction	1.39	3.33	0-15
IIEF-Overall Satisfaction	6.92	2.88	2-10

Note: Higher scores denote better sexual response

Table III

Pearson Product-Moment Correlations between Sexual Response Scores in Women (Female Sexual Function Index; FSFI) and Men (International Index of Erectile Function; IIEF) with Sexual Distress (SD).

Questionnaire	Subscale	Sexual Distress (r)
FSFI	Desire***	0.347
	Arousal**	0.282
	Lubrication**	0.274
	Orgasm*	0.243
	Satisfaction**	-0.398
	Pain	0.071
IIEF	Desire**	0.398
	Erectile Function	-0.113
	Orgasmic Function	0.144
	Intercourse Satisfaction	-0.094
	Satisfaction**	-0.609

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