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Demographic and Psychosocial Features of Participants in Bondage and Discipline, "Sadomasochism" or Dominance and Submission (BDSM): Data from a National Survey

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ABSTRACT

Introduction. People with sexual interests in bondage and discipline, "sadomasochism" or dominance and submission (BDSM) have been seen by many professionals as damaged or dangerous.

Aim. To examine sexual behavior correlates of involvement in BDSM and test the hypothesis that BDSM is practiced by people with a history of sexual coercion, sexual difficulties, and/or psychological problems.

Methods. In Australia in 2001–2002, a representative sample of 19,307 respondents aged 16–59 years was interviewed by telephone. Weighted data analysis used univariate logistic regression.

Main Outcome Measures. Self-reported demographic and psychosocial factors; sexual behavior and identity; sexual difficulties.

Results. In total, 1.8% of sexually active people (2.2% of men, 1.3% of women) said they had been involved in BDSM in the previous year. This was more common among gay/lesbian and bisexual people. People who had engaged in BDSM were more likely to have experienced oral sex and/or anal sex, to have had more than one partner in the past year, to have had sex with someone other than their regular partner, and to have: taken part in phone sex, visited an Internet sex site, viewed an X-rated (pornographic) film or video, used a sex toy, had group sex, or taken part in manual stimulation of the anus, fisting or rimming. However, they were no more likely to have been coerced into sexual activity, and were not significantly more likely to be unhappy or anxious—indeed, men who had engaged in BDSM scored significantly lower on a scale of psychological distress than other men. Engagement in BDSM was not significantly related to any sexual difficulties.

Conclusion. Our findings support the idea that BDSM is simply a sexual interest or subculture attractive to a minority, and for most participants not a pathological symptom of past abuse or difficulty with "normal" sex. **Richters J, de Visser RO, Rissel CE, Grulich AE, and Smith AMA. Demographic and psychosocial features of participants in bondage and discipline, "sadomasochism" or dominance and submission (BDSM): Data from a national survey. J Sex Med 2008;5:1660–1668.**

Key Words. Sadomasochism; National Survey; Sexual Behavior

Introduction

People with sexual interests in bondage and discipline (B&D), sexual "sadism," and/or "masochism" (S&M or SM), or dominance and submission (D/s) have long been seen by medicine, the law, and the caring professions as at best damaged (in need of therapy) and at worst dangerous (in need of legal or social regulation) [1–4].

Much of the literature on the topic that can be found through medicine and psychology databases operates either in a psychoanalytic framework or in a forensic one, focusing on sexual offenders [5,6]. The psychoanalytic approach suffers from confusion between a very broad psychological notion of the sadistic or masochistic personality on one hand and sexual proclivities on the other [7–10]. The forensic approach is more often

empirical, but chooses as its object of study people who have been charged with criminal offences, thus shedding little light on the noncriminal practice of BDSM.

Krafft-Ebing treated BDSM interests as one end of a continuum that spread from enjoying fetishistic fantasies or acts such as spanking to lust murder [1]. This view lingers on in the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-IV-TR) definitions of sexual sadism and sexual masochism [11]. The diagnostic criteria for sexual sadism, for example, are "A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving acts (real, not simulated) in which the psychological or physical suffering (including humiliation) of the victim is sexually exciting to the person. B. The person has acted on these sexual urges with a nonconsenting person, or the sexual urges or fantasies cause marked distress or interpersonal difficulty." (Strictly speaking, therefore, no one whose involvement in consensual BDSM did not cause them distress would meet the diagnostic criteria. But many participants do see themselves as "sadists" and "masochists" [12] and distress can be caused by legal persecution [13,14] or social or professional disapproval [3,15].)

Testing the soundness of this view at the population level would require data on people's criminal charges and/or convictions as well as data on their sexual tastes or proclivities. However, it could be seen not as an empirical assumption or claim but as a taxonomic act based on a moral (or aesthetic?) point of view that equates the consensual and somewhat theatrical performance of "punishment" in BDSM with real violence and cruelty.

There are, however, three common assumptions about BDSM that can be framed as empirical claims:

1. The assumption that a taste for BDSM is a result of the individual pursuing in later sexual life attributes of earlier scenes of sexual abuse that are still experienced as arousing [4,16]. Although this has rarely been stated as an explicit testable hypothesis, it is an underlying assumption of many therapists [3] and of some feminist disapproval of BDSM as a sexual proclivity [17,18].
2. The assumption that BDSM interest is a form of psychological abnormality and that its practitioners are likely to be anxious and maladjusted in other ways [4], though a number

of studies have questioned this [19–22]. This is probably linked to the Krafft-Ebing/DSM view mentioned above.

3. The assumption, perhaps nowadays more common among lay people than professionals, that people who are involved in BDSM are sexually deficient in some way and need particularly strong stimuli such as beating or being beaten, being tied up, etc. to become aroused or to reach orgasm, i.e., that they suffer from sexual difficulties which they attempt to alleviate or circumvent through their deviant activities [4,19,21,22].

It is unlikely that a single theory will be sufficient to explain participation in BDSM, because BDSM encompasses a broad range of different behaviors, and a diverse range of participants who may enact a limited preferred range of BDSM activities or who may be quite flexible in their BDSM activities [21]. Although there have been several empirical studies of BDSM practitioners that suggest that BDSM participants are no more damaged or dangerous than the rest of the population [12,21,23–27], no national representative sample survey of sexual behavior and attitudes examined it until the Australian Study of Health and Relationships (ASHR) [28]. We reported that 2.0% of sexually active men and 1.4% of women aged between 16 and 59 years had engaged in BDSM in the past year, but gave no further details about practitioners [29].

Aims

In this analysis, we therefore tested three hypotheses:

1. that participants in BDSM are more likely than nonparticipants to have been subject to sexual coercion in the past;
2. that BDSM participants score higher on a scale of psychological distress;
3. that BDSM participants are more likely to suffer from sexual difficulties such as lack of interest in sex or difficulty reaching orgasm.

We also examined the sexual behavior correlates of engagement in BDSM.

Method

The methods used in ASHR have been described in full previously [28]. Briefly, between May 2001 and June 2002 computer-assisted telephone

interviews were completed by a representative sample of 10,173 men and 9,134 women aged 16–59 years across Australia. Respondents were selected by random-digit dialing, with oversampling of men and residents of some geographical areas. The overall response rate was 73.1% (69.4% among men and 77.6% among women).

Outcome Measures

Late in the interview, respondents were asked about their involvement in various autoerotic and less common sexual practices in the previous 12 months (see Appendix). This set of questions included a skip-out mechanism so that respondents who displayed any discomfort with the topics were immediately moved on to the next section. Skipped-out respondents were excluded from analysis of BDSM. People who said “yes” to the question about “B&D or S&M” (explained as “bondage and discipline, sadomasochism, or dominance and submission”) are described below as BDSM participants. An alternative procedure of allocating skipped-out respondents to the “no” category led to very small decreases in our estimates of the prevalence of BDSM, but there were no changes to the patterns of association or the strength of associations observed. Full details of this process are available on request.

As well as demographic items such as age, education, and language spoken at home, respondents were asked about their (homo)sexual identity: “Do you think of yourself as: 1 heterosexual or straight? 2 homosexual (gay/lesbian)? 3 lesbian?” The questionnaire also asked about their lifetime experience of sex with male and female partners, sexual practices (vaginal intercourse, fellatio and cunnilingus, and anal intercourse), whether they had been sexually coerced (“Have you ever been forced or frightened by a male or female into doing something sexually that you did not want to do?”) [30], whether they had had any sexual difficulties in the past year [31], and whether they had ever had a tattoo, had a piercing in the previous year, or been detained in a prison or a juvenile detention facility for more than 24 hours in the previous 15 years.

Psychological distress was measured using six items (Cronbach’s alpha = 0.83) from the Kessler-10 psychosocial distress scale [32]. A score of one standard deviation above the mean was chosen as a marker of psychological distress.

Analysis

Data were weighted to allow for the probability of household selection and of an individual’s selec-

tion within the household and then weighted to match the Australian population in age, gender, and area of residence. Correlates of outcome variables were identified via univariate logistic regression. The need to weight the data to reflect the Australian population and to adjust for age differences in BDSM participation necessitated the use of univariate logistic regression (rather than χ^2 tests) to identify correlates of outcome variables. Weighted data were analyzed using the survey estimation commands in Stata version 7.0. Weighted proportions (equivalent to what would normally be seen in χ^2 contingency tables) are reported in all tables.

Results

Among those who had had a sexual partner in the previous year, 2.2% of men and 1.3% of women said they had been involved in BDSM in the past year; this sex difference was not statistically significant (OR = 0.58; 95% CI 0.31–1.08, $P = 0.088$). Within the whole sample, 1.8% of men and 1.2% of women had been involved in BDSM (OR = 0.66; 95% CI 0.36–1.23, $P = 0.191$).

Demographic Factors

Table 1 displays demographic correlates of participation in BDSM in the past year. Engagement in BDSM was significantly more likely among bisexual and gay-identified men. Among men, engaging in BDSM was not significantly related to age, speaking a language other than English at home, education, region of residence, or relationship status.

Among women, engagement in BDSM was most likely among those aged 16–19 years and least likely among those older than 50 years. Engagement in BDSM was significantly more likely among bisexual women and lesbians, and among women with a regular partner they did not live with, and significantly less likely among women living in remote areas. Among women, engaging in BDSM was not significantly related to speaking a language other than English at home or to education.

Sexual Practices

For both men and women, there was a significant association between engagement in BDSM and a greater number of sexual partners over the lifetime (Table 2). There were also significant associations between engagement in BDSM and gender of sexual partners. Both men and women who had

Table 1 Demographic correlates (univariate) of participation in BDSM in the past year

Correlates	Men (N = 8,628)	OR (95% CI)	Women (N = 8,151)	OR (95% CI)
Age (years)	(<i>P</i> = 0.291)		(<i>P</i> = 0.005)	
16–19	0.6%	0.17 (0.04–0.73)	5.9%	4.19 (0.86–20.35)
20–29	3.3%	1.00	1.5%	1.00
30–39	2.4%	0.72 (0.31–1.66)	1.0%	0.67 (0.28–1.62)
40–49	2.0%	0.61 (0.27–1.37)	1.2%	0.79 (0.21–3.02)
50–59	1.8%	0.54 (0.19–1.52)	0.1%	0.09 (0.01–0.72)
Language at home	(<i>P</i> = 0.531)		(<i>P</i> = 0.457)	
English	2.3%	1.00	1.4%	1.00
Other	1.3%	0.57 (0.10–3.31)	0.0%	—
Sexual identity	(<i>P</i> < 0.001)		(<i>P</i> < 0.001)	
Heterosexual	2.1%	1.00	1.1%	1.00
Bisexual	14.2%	7.81 (3.00–20.31)	13.8%	15.01 (6.10–36.93)
Gay/lesbian	4.4%	2.18 (1.02–4.67)	9.3%	9.59 (3.39–27.10)
Education	(<i>P</i> = 0.762)		(<i>P</i> = 0.056)	
Less than secondary	1.9%	1.00	0.9%	1.00
Secondary	2.3%	1.26 (0.55–2.88)	2.6%	2.86 (1.00–8.15)
Post-secondary	2.5%	1.36 (0.59–3.18)	0.8%	0.80 (0.26–2.87)
Region of residence	(<i>P</i> = 0.194)		(<i>P</i> = 0.015)	
Major city	2.6%	1.00	1.9%	1.00
Regional	1.8%	0.68 (0.34–1.34)	0.7%	0.36 (0.15–0.90)
Remote	0.2%	0.09 (0.01–0.70)	<0.1%	0.01 (0.00–0.10)
Regular partner	(<i>P</i> = 0.485)		(<i>P</i> = 0.026)	
Yes, live-in	2.3%	1.00	1.0%	1.00
Yes, not live-in	2.5%	1.09 (0.50–2.39)	3.7%	3.70 (1.09–12.47)
No regular partner	3.4%	1.51 (0.74–3.09)	1.1%	1.06 (0.32–3.48)
Total	2.2%		1.3%	

BDSM = bondage and discipline, sadomasochism.

engaged in BDSM in the past year were significantly more likely to report bisexual experience.

Table 2 shows that men who had engaged in BDSM in the year prior to the interview were significantly more likely to have: ever had vaginal, oral, or anal sex; ever paid for sex; had more than one sexual partner in the last year; and been non-exclusive in a regular relationship (i.e., had sex with someone other than their regular partner) in the past year. In the year before being interviewed, men who had engaged in BDSM were significantly more likely to have: masturbated; had phone sex; deliberately visited an Internet sex site; watched an X-rated film or video; used a sex toy; had group sex; or engaged in digital anal stimulation, fisting or rimming.

Women who had engaged in BDSM in the year before the interview were significantly more likely to have: ever had vaginal, oral, or anal sex; and been nonexclusive in a regular relationship in the past year. In the year before being interviewed, women who had engaged in BDSM were significantly more likely to have: had phone sex; deliberately visited an Internet sex site; used a sex toy; had group sex; or engaged in digital anal stimulation, fisting or rimming. Engagement in BDSM was not significantly related to: having had more than one sexual partner; masturbation; or watching an X-rated film.

Sexual Coercion, Psychological Well-Being, and Other Factors

Table 3 shows that for neither men nor women was engagement in BDSM significantly related to having been sexually coerced ever or before age 16 years. Men who had engaged in BDSM were significantly less likely to have elevated psychological distress, but there was no significant association for women. Engagement in BDSM was not significantly related to: having a tattoo or having had a piercing in the past year. Among women, but not men, engagement in BDSM was significantly related to having been imprisoned within the past 15 years.

Sexual Difficulties

In Table 4, we see that among men and women, participation in BDSM was not significantly related to experiencing for at least a month in the past year any of the sexual difficulties we asked about: lacking interest in sex, difficulty coming to orgasm, coming to orgasm too quickly, pain during intercourse, not finding sex pleasurable, anxiety about ability to perform, or worrying during sex that their body looked unattractive. Nor was participation in BDSM significantly related to erectile difficulties in men or vaginal dryness in women.

Table 2 Associations between BDSM and sexual practices (adjusted for age)

	BDSM		OR (95% CI)	P value
	No (%)	Yes (%)		
Men				
Sexual partners in lifetime				
1	10.5	0.2	0.03 (0.00–0.21)	<i>P</i> < 0.001
2–9	41.3	34.7	1.00	
10–49	39.7	43.7	1.32 (0.61–2.84)	<i>P</i> = 0.479
50+	8.5	21.4	3.13 (1.28–7.66)	<i>P</i> = 0.012
Sexual experience				
Only with females	93.3	76.8	1.00	
With females and males	5.9	21.5	4.44 (2.96–9.33)	<i>P</i> < 0.001
Only with males	0.7	1.7	2.70 (0.90–8.09)	<i>P</i> = 0.077
Sexual repertoire—lifetime*				
Vaginal sex	91.1	98.3	5.42 (1.86–15.88)	<i>P</i> < 0.002
Oral sex	81.6	96.7	6.58 (2.39–12.04)	<i>P</i> < 0.001
Anal sex	21.1	45.1	3.11 (1.67–5.80)	<i>P</i> < 0.001
Paid for sex	16.5	31.6	2.50 (1.28–4.88)	<i>P</i> = 0.007
Sexual repertoire—last year*				
Had >1 partner in last year	15.5	36.6	3.22 (1.77–5.84)	<i>P</i> < 0.001
Had nonexclusive relationship	5.8	18.3	3.41 (1.62–7.17)	<i>P</i> = 0.001
Masturbated	66.6	88.8	3.89 (1.37–11.07)	<i>P</i> = 0.011
Had phone sex	2.8	10.1	3.90 (1.80–8.45)	<i>P</i> = 0.001
Visited Internet sex site	17.2	45.2	4.04 (2.14–7.65)	<i>P</i> < 0.001
Watched pornographic video	39.6	65.5	2.87 (1.47–5.58)	<i>P</i> = 0.002
Used sex toy	12.8	58.1	9.58 (5.03–18.26)	<i>P</i> < 0.001
Had group sex	2.3	13.4	6.41 (3.24–12.69)	<i>P</i> < 0.001
Had digital-anal stimulation	18.6	59.9	6.48 (3.31–12.69)	<i>P</i> < 0.001
Engaged in fisting	0.6	4.6	7.96 (2.61–24.27)	<i>P</i> < 0.001
Engaged in rimming	5.6	33.1	8.25 (4.35–15.66)	<i>P</i> < 0.001
Women				
Sexual partners in lifetime				
1	21.6	0.0	—	—
2–9	57.8	57.6	1.00	
10–49	19.5	35.5	1.71 (0.62–4.72)	<i>P</i> = 0.299
50+	1.1	6.9	6.76 (1.93–23.69)	<i>P</i> = 0.003
Sexual experience				
Only with males	90.9	58.4	1.00	
With males and females	9.0	41.6	5.69 (1.97–16.42)	<i>P</i> = 0.001
Only with females	0.1	0.0	—	
Sexual repertoire—lifetime*				
Vaginal sex	94.2	98.9	10.27 (1.33–79.33)	<i>P</i> = 0.026
Oral sex	71.6	98.2	18.34 (3.27–102.78)	<i>P</i> = 0.001
Anal sex	16.7	40.3	3.48 (1.35–8.96)	<i>P</i> = 0.010
Sexual repertoire—last year*				
Had >1 partner in last year	8.3	27.0	2.60 (0.82–8.30)	<i>P</i> = 0.106
Had nonexclusive relationship	3.1	14.4	4.35 (1.53–12.39)	<i>P</i> = 0.006
Masturbated	37.0	48.8	1.46 (0.49–4.34)	<i>P</i> = 0.493
Had phone sex	1.9	14.0	5.58 (1.61–19.39)	<i>P</i> = 0.007
Visited Internet sex site	2.4	10.1	3.39 (1.28–9.01)	<i>P</i> = 0.014
Watched pornographic video	16.3	37.2	2.37 (0.84–6.69)	<i>P</i> = 0.105
Used sex toy	14.5	40.0	3.61 (1.37–9.55)	<i>P</i> = 0.010
Had group sex	0.4	12.6	25.24 (7.02–90.68)	<i>P</i> < 0.001
Had digital-anal stimulation	13.0	63.8	10.08 (3.66–27.77)	<i>P</i> < 0.001
Engaged in fisting	0.3	7.2	23.39 (5.99–91.34)	<i>P</i> < 0.001
Engaged in rimming	2.9	24.3	9.12 (3.34–24.91)	<i>P</i> < 0.001

*Nonexclusive categories.

BDSM = bondage and discipline, sadomasochism.

Discussion

This analysis was conducted on a representative national sample with a high response rate. The sample was large enough to allow analysis of correlations between rare factors (such as gay identity

and engagement in BDSM) with sufficient statistical power.

Engagement in BDSM correlated strongly with a large number of sexual practice measures associated with greater sexual activity and interest in sex, but weakly or not at all with the sexual history and

Table 3 Associations between BDSM and sexual coercion and other factors (adjusted for age)

	BDSM		OR (95% CI)	P
	No (%)	Yes (%)		
Men				
Experience of sexual coercion				
Coerced ever	5.2	8.0	1.58 (0.74–3.38)	<i>P</i> = 0.228
Coerced before age 16 years	2.6	5.2	2.03 (0.76–5.46)	<i>P</i> = 0.160
Well-being				
Psychological distress	9.7	3.5	0.33 (0.14–0.80)	<i>P</i> = 0.010
Other behaviors				
Had a tattoo	15.7	17.4	1.12 (0.61–2.05)	<i>P</i> = 0.712
Had a piercing in past year	3.8	6.8	2.06 (0.79–5.42)	<i>P</i> = 0.142
Been in prison in past 15 years	4.2	3.4	0.80 (0.27–2.37)	<i>P</i> = 0.683
Women				
Experience of sexual coercion				
Coerced ever	21.6	29.4	1.40 (0.64–3.85)	<i>P</i> = 0.471
Coerced before age 16 years	13.3	13.6	0.99 (0.38–3.03)	<i>P</i> = 0.987
Well-being				
Psychological distress	18.8	35.0	2.20 (0.88–6.26)	<i>P</i> = 0.118
Other behaviors				
Had a tattoo	10.6	22.2	1.69 (0.62–4.59)	<i>P</i> = 0.305
Had a piercing in past year	7.1	16.1	1.34 (0.35–5.15)	<i>P</i> = 0.668
Been in prison in past 15 years	0.3	2.2	5.65 (1.40–22.75)	<i>P</i> = 0.015

BDSM = bondage and discipline, sadomasochism.

pathological outcomes often assumed to be associated with “somasochism.”

Hypothesis 1 was not supported. People who had engaged in BDSM in the past year were not more likely to have been sexually coerced ever or before age 16 years. Among men, the point estimates of prevalence of experience of coercion were higher among BDSM participants, although they did not reach statistical significance. It could be argued that they might have done so if we had had an even larger sample. However, there is also a

tendency for those who have more sex and more partners to place themselves more often in situations where coercion may occur, so it is equally possible that any association is a result of reverse cause—i.e., the more sexually active people incur the risk of coercion, rather than that the previously coerced people have been traumatized and have pathological sexual tastes as a result.

Hypothesis 2 was not supported. Engagement in BDSM was not associated with higher levels of psychological distress (i.e., feeling sad, nervous,

Table 4 Associations between BDSM and sexual difficulties in the last 12 months

	BDSM		OR (95% CI)	P value
	No (%)	Yes (%)		
Men				
Lacked interest in sex	24.2	21.6	0.88 (0.45–1.75)	<i>P</i> = 0.730
Had difficulty coming to orgasm	6.5	6.0	1.04 (0.30–3.55)	<i>P</i> = 0.971
Came to orgasm too quickly	23.3	14.6	0.57 (0.24–1.33)	<i>P</i> = 0.191
Felt pain during intercourse	2.4	7.0	2.93 (0.78–11.00)	<i>P</i> = 0.110
Sex was not pleasurable	5.6	5.4	1.00 (0.29–3.44)	<i>P</i> = 0.997
Felt anxious about ability to perform	16.3	19.7	1.28 (0.58–2.82)	<i>P</i> = 0.542
Had erectile difficulties	9.7	12.3	1.57 (0.61–4.03)	<i>P</i> = 0.346
Worried about body during sex	15.4	16.5	1.04 (0.45–2.37)	<i>P</i> = 0.934
Women				
Lacked interest in sex	55.2	43.6	0.69 (0.25–1.88)	<i>P</i> = 0.469
Had difficulty coming to orgasm	28.7	30.4	1.20 (0.45–3.17)	<i>P</i> = 0.713
Came to orgasm too quickly	11.8	16.9	1.45 (0.48–4.41)	<i>P</i> = 0.509
Felt pain during intercourse	20.5	24.5	1.07 (0.39–2.90)	<i>P</i> = 0.897
Sex was not pleasurable	26.9	31.1	1.35 (0.51–3.62)	<i>P</i> = 0.546
Felt anxious about ability to perform	16.7	26.7	1.81 (0.73–4.46)	<i>P</i> = 0.198
Experienced vaginal dryness	24.1	14.5	0.69 (0.27–1.75)	<i>P</i> = 0.437
Worried about body during sex	37.5	29.9	0.58 (0.22–1.56)	<i>P</i> = 0.282

BDSM = bondage and discipline, sadomasochism.

hopeless, etc.). Indeed, among men who participated in BDSM, the levels were significantly lower. Among women, they were apparently higher but this did not reach statistical significance.

Hypothesis 3 was not supported. There were no statistically significant associations between engagement in BDSM and any of the sexual difficulties asked about in the survey. The only suggestion of an association—not significant at the 5% level—was for pain in intercourse among men, a rare difficulty. This may arise from men reporting desired pain, e.g., from BDSM activities, when asked this question.

The question about BDSM participation used in the interview was limited and in no way amounts to a “diagnosis” of BDSM-type inclinations, let alone sexual sadism or sexual masochism in DSM-IV’s terms. It referred only to the past year, so people with BDSM interests who had not engaged in any BDSM practices in the past year were excluded. Likewise, people who had had no sexual partner in the past year were excluded. There may also be people, especially those not attached to BDSM groups, who enjoy elements of what aficionados would regard as BDSM—bondage, spanking, power-based role-play or fetish costumes, say—who do not think of their activities in terms of “B&D or S&M.” They may be unaware of such terms or regard them as labels for an unfamiliar set of perverse activities involving hangmen’s masks, whips, etc. People who had been involved in BDSM in the previous year may have taken part only experimentally or because of the interests of a sexual partner. In short, our question does not measure BDSM identity or orientation, or distinguish people for whom it is a key part of their sexual persona from those for whom it is an occasional amusement or hobby. No question was asked on frequency of engagement in BDSM activities.

Unfortunately, in a wide-ranging study such as this, we could not explore whether people who engaged in BDSM took a dominant role, a submissive role or both, or indeed whether they accepted such definitions. Studies of purposive samples of BDSM participants would be needed to explore such issues and to help to clarify whether BDSM per se is related to better psychological well-being among men or whether specific roles and/or activities perhaps improve psychological well-being.

As our data were collected, the literature on BDSM has been drawn together and augmented by Kleinplatz and Moser’s special issue of the *Journal of Homosexuality* on “sadoomasochism,” also published as a book [33]. Cross and Matheson’s

substantial study [12] tested several common academic and/or clinical understandings of SM with small nonrepresentative samples but much longer questionnaires and more detailed measures than we were able to do in an omnibus sexual health survey of the general population. As in our survey, SM practitioners were less likely to be exclusively heterosexual and reported more sexual partners. Using several batteries of psychological measures, Cross and Matheson found SM practitioners were not more unhappy or neurotic. The only major demographic finding was that masochists were more likely to be employed than sadists and non-sadomasochists. These findings are completely in line with our finding of higher sexual interest and wider repertoire among those who had engaged in BDSM, and our finding that they were not unhappy or anxious. The authors concluded that sadomasochists should be seen as sexual gourmets or adventurers, and they suggested further, echoing Weinberg [19,20], that “rather than pain, bondage, and humiliation being at the core of the SM experience . . . the exchange of power in an erotic context [is] a vehicle for the experience of sexual pleasure” [12].

Our finding of higher proportions of female BDSM participants relative to male BDSM participants than has been found in past research may be a reflection of the fact that our data were collected from a sample of the general population, rather than from BDSM clubs or other subsamples of the population [20–21,23,26].

All health surveys that are known to be concerned primarily with sex are vulnerable to sex survey volunteer effect [34], and this is probably true of our study; we can assume that the refusers are likely to be more sexually conservative than the participants. It is difficult to judge whether some participants in the study would suppress information about their involvement in BDSM, thus leading to an underestimate of prevalence or bias in the correlations. We suspect it is unlikely, as by the late stage of the interview at which this matter was disclosed, respondents were mostly quite comfortable. Even though violent or “fetish” visual pornography cannot gain censorship classification in Australia [35], there does not seem to be widespread public disapproval or alarm about BDSM, and there have been no prominent cases in the media of (for example) children being removed from their parents because of the parents’ involvement in BDSM, as in the United States [13]. Australia’s sexual climate is in general more tolerant than Britain’s or North America’s, with a smaller pro-

portion disapproving of abortion or homosexuality. Only infidelity excites high disapproval [36].

Conclusion

Our findings support the idea that BDSM is simply a sexual interest or subculture attractive to a minority, and that for most participants, BDSM activities are not a pathological symptom of past abuse or of difficulty with "normal" sex. This confirms the conclusions of other empirical studies based on purposive samples [12,16,20,21,24,26].

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Appendix

Ascertainment of participation in autoerotic and esoteric sexual practices

The next section is about things that some people do to add to sexual stimulation. If you have not heard of any of the things I read out, just tell me.

Question: In the last 12 months, have you ever masturbated alone? (Prompt:) Stimulated yourself.

Question: In the last 4 weeks, how many times have you masturbated alone? (Note to interviewer: orgasm is not required for activity to qualify as masturbation.)

Question: In the last 12 months, have you had phone sex or called a telephone sex line?

Question: In the last 12 months, have you gone to a sex site on the Internet on purpose? (Note to interviewer: this includes both looking at pictures and chat rooms.)

Question: In the last 12 months, have you met a sexual partner through an Internet chat room?

Question: In the last 12 months, have you watched an X-rated video or film? (Interviewer note: X is classified as "nonviolent erotica"—from sex shops or mail order in NSW. R-rated does not count.)

[The following questions relating to partnered sex were not asked of people who had no sexual partners in the past year.]

Question: In the last 12 months, have you used a sex toy such as a vibrator or dildo? (Interviewer note: any other toys such as butt plugs, ben-wa balls, etc. are included. Do not include feathers, canes, massage oil, etc.)

[From here on, interviewer skipped rest of section if respondent did not understand questions or expressed discomfort.]

Question: In the last 12 months, have you been involved in role playing or dressing up? (Interviewer note: includes playing games like naughty schoolgirl, captain and cabin boy, etc., or dressing up in fetish gear or female clothing.)

Question: In the last 12 months have you been involved in B&D or S&M? That's bondage and discipline, sadomasochism, or dominance and submission.

Question: And in the last 12 months, have you been involved in group sex?

Question: And in the last 12 months, have you used your fingers to stimulate a partner's anus, or had a partner do that to you?

Question: And in the last 12 months, have you been involved in fisting? (Interviewer note: do not explain. Includes both receptive and insertive, vaginal and rectal fisting, if respondent asks.)

Question: Oral-anal contact or rimming, in the last 12 months?