



Open Research Online

The Open University's repository of research publications and other research outputs

Sexual Problems and Distress among Men and Women with Same-Sex and Opposite-Sex Sexual Partners: An Analysis of a Nationally Representative Sample of Adults in Great Britain

Journal Item

How to cite:

Waterhouse, Philippa and Burkill, Sarah (2019). Sexual Problems and Distress among Men and Women with Same-Sex and Opposite-Sex Sexual Partners: An Analysis of a Nationally Representative Sample of Adults in Great Britain. *International Journal of Sexual Health* (Early Access).

For guidance on citations see [FAQs](#).

© 2019 The Authors

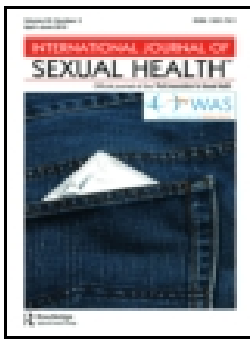
Version: Version of Record

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.1080/19317611.2019.1653415>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk



Sexual Problems and Distress among Men and Women with Same-Sex and Opposite-Sex Sexual Partners: An Analysis of a Nationally Representative Sample of Adults in Great Britain

Philippa Waterhouse & Sarah Burkill

To cite this article: Philippa Waterhouse & Sarah Burkill (2019): Sexual Problems and Distress among Men and Women with Same-Sex and Opposite-Sex Sexual Partners: An Analysis of a Nationally Representative Sample of Adults in Great Britain, International Journal of Sexual Health, DOI: [10.1080/19317611.2019.1653415](https://doi.org/10.1080/19317611.2019.1653415)

To link to this article: <https://doi.org/10.1080/19317611.2019.1653415>



© 2019 The Author(s). Published with license by Taylor and Francis Group, LLC



Published online: 27 Aug 2019.



Submit your article to this journal [↗](#)



Article views: 54



View related articles [↗](#)



View Crossmark data [↗](#)

Sexual Problems and Distress among Men and Women with Same-Sex and Opposite-Sex Sexual Partners: An Analysis of a Nationally Representative Sample of Adults in Great Britain

Philippa Waterhouse^a and Sarah Burkill^b

^aSchool of Health, Wellbeing and Social Care, The Open University, Milton Keynes, The United Kingdom; ^bDepartment of Medicine, Solna Eugeniaemmet, T2 Karolinska Universitetssjukhuset, Stockholm, Sweden

ABSTRACT

Objective: This study aimed to examine differences in reporting sexual problems and distress among men and women with same-sex and opposite-sex sexual partners.

Methods: Multinomial regression was undertaken on risk of reporting sexual problems and/or distress using data from the third National Survey of Sexual Attitudes and Lifestyles.

Results: Differences were detected between men of different sexual behavior groups when considering the problems "lack of enjoyment in sex," "felt anxious during sex," "felt no excitement or arousal during sex," "lack of interest in sex," "did not reach/took a long time to reach climax," and "getting or keeping an erection." Fewer differences were detected among women.

Conclusions: Women reporting same sex sexual partners, and to a greater extent men reporting same sex sexual partners, have different sexual health needs and report sexual health problems and distress to a different extent than is the case for individuals who only have opposite-sex sexual partners

ARTICLE HISTORY

Received 12 March 2019

Revised 20 June 2019

Accepted 3 August 2019

KEYWORDS



Sexual problems; sexual distress; women who have sex with women; men who have sex with men

Introduction

An extensive body of literature exists that has explored differences in the reporting of sexual problems among men and women, with common patterns and conclusions emerging. Women are more likely to report experiencing one or more sexual problem in comparison to men (Laumann et al., 2005; Mercer et al., 2005; Mitchell et al., 2013; Mitchell, Geary, et al., 2016; Rosen, 2000). Moreover, among women, a lack of interest in sex and an inability to reach orgasm are the most frequently reported sexual problems, whilst among men a lack of interest in sex, early ejaculation and erectile difficulties are most commonly reported (Laumann et al., 2005; Mitchell et al., 2013).

Although the literature investigating gender differences in sexual problems is substantial, research has rarely considered differences related to sexual orientation. Variations in the frequency

of orgasm have been reported in both single and partnered American populations, with gay and bisexual men showing similar patterns to heterosexual men, but lesbian women having higher rates of orgasm occurrence compared to heterosexual and bisexual women (Garcia, Lloyd, Wallen, & Fisher, 2014; Frederick, St. John, Garcia, & Lloyd, 2018). Among a sample of students in the United States, Breyer et al. (2010) noted similarities and differences in sexual problems by sexual orientation. Although among men, rates of premature ejaculation were comparable among heterosexual and homosexual men, homosexual women were less likely to report difficulties associated with pain and orgasms compared to heterosexual women. Coleman, Hoon, and Hoon (1983) and Beaber and Werner (2009) also found evidence of higher levels of arousal for lesbians compared to heterosexual women, although Beaber and Werner (2009) found no

CONTACT Sarah Burkill  sarah.burkill@ki.se  Department of Medicine, Karolinska Institute, Stockholm, 171 77 Sweden.

© 2019 The Author(s). Published with license by Taylor and Francis Group, LLC

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

differences in terms of desire, vaginal lubrication or pain linked to sex.

A limitation of the literature on the relationship between sexual orientation and sexual problems is that it tends to conceptualize sexual orientation in terms of sexual identity (e.g., whether someone identifies as gay, lesbian, bisexual or straight). Samples collected on the basis of sexual identity do not provide a full picture of same-sex sexuality, which can be important depending on the research focus (Hoy & London, 2018). Sexual behavior and sexual attraction are also important dimensions of sexual orientation. Although sexual identity, behavior, and attraction are closely associated, it has been recognized that they are not the same and do not always neatly align (Hoy & London, 2018; Richters et al., 2014; Silva, 2018). Blair, Cappell, and Pukall (2018, p. 721) argues that “individual’s self-identified sexual identity does not always accurately predict the gender of sexual partner.” Sexual identity, furthermore, can be more complex than simply the sex/gender of the partner; for example, pansexuals identify based on their attraction to individuals regardless of their sex or gender (Harper & Ginicola, 2017). Yet, the gender of sexual partners is important when it comes to sexual activities, and subsequently is likely to be an important consideration for sexual problems. The example given by Blair et al. (2018) is that penile penetration happens less often in same-sex sexual activity (regardless of the gender of the sexual partners) compared to mixed-sex sexual activity. As men and women are more or less likely to experience an orgasm depending on the form of sexual activity that they engage in (e.g., penetrative activity, manual stimulation), the frequency with which individuals experience orgasm could depend on the gender of their sexual partners. This could also apply to other sexual problems. Lindley, Walsemann, and Carter’s (2012) study of sexual orientation and young adults’ health outcomes, which uses three different measures of sexual orientation (identity, attraction, and behavior), demonstrates how research into these different dimensions can provide a more comprehensive picture. Because of relatively sparse research on same-sex behavior and sexual problems and distress, this research considers this dimension of sexuality.

A further limitation of many studies on sexual problems is the use of the terminology sexual (dys)function without consideration of personal distress (Graham, 2010). This has the consequence of overestimating the prevalence of sexual dysfunction (Graham, 2010; Mitchell, Jones, et al., 2016; Moynihan, 2003) and pathologizing normal differences or variations (Bancroft, 2002; Basson, 2000). This medicalization of male and female sexuality has come under continued criticism in the research literature (e.g., Bass, 2011, Tiefer, 2010). The relatively small number of studies that assess associated distress, which has predominantly been focused on women in heterosexual relationships, reveal that reporting a sexual problem does not necessarily equate to a feeling of sexual distress (Bancroft, Loftus, & Long, 2003; King, Holt, & Nazareth, 2007; Mercer et al. 2005; Oberg, Fugl-Meyer & Fugl-Meyer, 2004; Witting et al., 2008). For example, among King et al.’s (2007) sample of women aged 18–75 years old recruited from clinics in London, 38% self-reported sexual problems but only 6% self-reported both a sexual problem and feelings of distress linked to this issue.

Drawing on data from a nationally representative sample of Great Britain, this article explores patterns of sexual problems and distress. The specific research questions are (1) Do sexual orientation (as measured by sexual behavior) differences exist in the reporting of sexual problems and associated distress? and (2) Do gender differences exist in the reporting of sexual problems and distress across sexual orientation behavioral groups? Understanding prevalence and patterns of sexual problems is important in informing sexual health policy and practice, and experiences of those with same-sex sexual partners may differ to those with only opposite-sex sexual partners. Looking at how and whether such problems translate into sexual distress is of relevance from a clinical perspective and could aid in the improvement of sexual health services for different sexual behavior groups.

Methods

Data

We drew upon secondary data from Natsal-3 (Johnson et al., 2017), a national probability survey that collected information related to the sexual

health of 15,162 men and women aged 16–74 years old living in Great Britain. This survey was conducted between 2010 and 2012 using a multistage stratified sampling approach with Postal Address Files (PAF) being the primary sampling unit. PAFs were stratified by region, population density, proportion of the population aged 60 years or above and the proportion of household heads in non-manual occupations (Erens et al., 2014). Between 30 to 36 addresses were randomly selected within each PAF, and one eligible individual selected from each household. Those aged 16–34 years were over-sampled. The response rate for Natsal-3 was 57.7%, with a cooperation rate of 65.5%. The Natsal dataset is deposited on the U.K. data archive, with doi:10.5255/UKDA-SN-7799-2.

Measures

Definition of groups

Categorization of sexually active women and men was based on sexual behavior over their lifetime. *Women who have sex exclusively with men* (WSEM) and *men who have sex exclusively with women* (MSEW) were defined as any woman/man reporting at least one opposite-sex partner in their lifetime but no same-sex partners. *WSW* and *MSM* were defined as any woman/man reporting at least one same-sex sexual partner in their lifetime, regardless of the number of opposite-sex partners. For same sex partners, the Natsal questionnaire asked, “Altogether, in your life so far, how many (*men/women-same sex*) have you had sex with (that is oral [*or anal*] sex or other forms of genital contact)? Please type in the number in your life (so far), ‘0’ if none.” For opposite sex partners, the questionnaire asked, “Altogether, in your life so far, how many (*women/men*) have you had sexual intercourse with (vaginal, oral or anal)? Please type in the number, ‘0’ if none.” For both same sex and opposite sex partner questions, the display screen provided the sex of the partner according to the respondent’s description of their own sex.

Sexual problems

The second part of the Natsal-3 survey consisted of a self-completed computer assisted interview and collected information about sexual problems.

Respondents who had had sex in the year preceding the survey, were asked “In the last year, have you experienced any of the following for a period of 3 months or longer?” Sexual problems asked about were “lacked interest in having sex,” “lacked enjoyment in sex,” “felt anxious during sex,” “felt physical pain as a result of sex,” “felt no excitement or arousal during sex,” “did not reach a climax (experience an orgasm) or took a long time to reach a climax despite feeling excited/aroused,” “reached a climax (experienced an orgasm) more quickly than you would like,” “had an uncomfortably dry vagina (asked of women only),” and “had trouble getting or keeping an erection (asked of men only).”

Sexual distress

For each sexual problem, respondents were asked, “And how do you feel about this?” with possible responses being “not at all distressed,” “a little distressed,” “fairly distressed,” and “very distressed.” We categorized respondents as either reporting no problem, reporting a problem and “no or a little” distress, or reporting a problem and being “fairly or very distressed.”

Confounders

The sociodemographic and health profiles of the sample of men and women were considered. Characteristics studied included age at the time of interview, ethnicity, area deprivation level, relationship status, and the number of sexual partners in the year preceding the survey. Ethnicity was coded as “White” and “non-White” using the answers to the question “to which of the ethnic groups on this card do you consider you belong?” with available options of “White, mixed, Asian or Asian British, Black or Black British, and Chinese or other ethnic group.” Because of small numbers for each of the ethnicity categories, the variable was recoded into binary format. The number of sexual partners in the past year was calculated in response to the questions on opposite-sex partners (“Altogether in the last year, how many women/men have you had sexual intercourse with?”) and same-sex partners (“Altogether in the last year, how many women/men have you had sex with?”). These questions were worded according to whether

Table 1. Demographic and Socioeconomic Characteristics of the Sample, by Sex and Sexual Orientation.

Characteristic	Males (n = 4809) %			Females (n = 6641) %		
	MSEW (n = 4536)	MSM (n = 273)	Total	WSEM (n = 6124)	WSW (n = 517)	Total
Age at interview						
<i>M (SE)</i>	36.7 (0.23)	38.3 (0.94)	36.8 (0.23)	35.7 (0.18)	31.8 (0.48)	35.4 (0.17)
Ethnic group						
White	4,053 (88.3)	261 (93.6)	4,314 (88.6)	5,468 (89.2)	478 (92.8)	5946 (89.5)
Non-White	483 (11.7)	12 (6.4)	495 (11.4)	656 (10.7)	39 (7.2)	695 (10.5)
Quintile index of multiple deprivation						
1 [least deprived]	920 (21.3)	54 (23.5)	974 (21.5)	1,162 (21.2)	83 (18.9)	1,245 (21.0)
2	904 (21.2)	53 (20.2)	957 (21.2)	1,199 (21.1)	88 (19.8)	1,287 (21.0)
3	879 (19.5)	55 (20.3)	934 (19.6)	1,182 (19.3)	110 (20.6)	1,292 (19.4)
4	914 (20.0)	50 (18.1)	964 (19.9)	1,262 (19.6)	116 (22.2)	1,378 (19.8)
5 [most deprived]	919 (17.9)	61 (18.0)	980 (18.0)	1,319 (18.9)	120 (18.5)	1,439 (18.8)
Relationship status						
Married/civil partnership	1,793 (55.7)	67 (38.1)	1,860 (54.8)	2,564 (56.7)	120 (34.4)	2,684 (55.2)
Living with a partner	783 (16.5)	53 (21.2)	836 (16.7)	1,140 (16.7)	132 (26.9)	1,272 (17.3)
In a steady on-going relationship	896 (12.7)	49 (12.9)	945 (12.7)	1,227 (13.3)	131 (19.6)	1,358 (13.7)
Not in a steady relationship	1,064 (15.1)	104 (27.8)	1,168 (15.8)	1,193 (13.4)	134 (19.2)	1,327 (13.8)
Number of sexual partners ^a in the past year						
1	3,408 (82.2)	145 (56.8)	3,553 (80.9)	5,133 (89.1)	291 (62.8)	5,424 (87.3)
2 or more	1,126 (17.8)	128 (43.2)	1,254 (19.1)	983 (10.9)	224 (37.5)	1,207 (12.7)
Sexual identity						
Heterosexual	4,522 (99.7)	132 (54.8)	4,654 (97.3)	6,079 (99.4)	339 (65.3)	6,418 (97.1)
Gay/lesbian	0 (0)	94 (28.3)	94 (1.5)	0 (0)	76 (16.1)	76 (1.1)
Bisexual	9 (0.2)	44 (16.3)	53 (1.1)	33 (0.4)	97 (17.3)	130 (1.6)
Other/not answered	5 (0.1)	2 (0.6)	7 (0.1)	9 (0.2)	5 (1.4)	14 (0.2)

Note. % are weighted according to Natsal weight to ensure the sample is representative of the 2011 census. MSEW = men who have sex exclusively with women; MSM = men who have sex with men; WSEM = women who have sex exclusively with men; WSW = women who have sex with women.

^aSexual partners defined in the Natsal-3 as "people who have had sex together"—whether just once, or a few times, or as regular partners, or as married partners.

the participant had specified they were male or female at the beginning of the questionnaire. Those who were calculated as having two or more sexual partners in the year preceding the survey were collapsed into a single category. Natsal-3 measures area deprivation using the Index of Deprivation (IMD), which classifies areas by their level of relative deprivation as indicated by factors such as income, employment, housing, health and crime. IMD scores for England, Scotland, and Wales were combined and assigned into quintiles (Payne & Abel, 2012).

Statistical analysis

For the purpose of this article, the analysis was restricted to individuals who were sexually active in the year preceding the survey, and for whom complete data for all variables of interest were available resulting in a final sample size of 11,450. When complex survey weights were applied, this equated to 77.0% of the 15,162 Natsal respondents. The reason for this inclusion criterion was that questions on sexual function problems in Natsal-3 were only asked to those sexually active in the year preceding the survey. We derived this sub-sample from self-reports of

number of sexual partners (same-sex and/or opposite-sex) in the year preceding the survey.

Multinomial regression was undertaken to examine differences in the reporting of one or more sexual response problems. For each model, the outcome was considered to be the response given to the sexual problem/distress question, and the exposure was considered to be the sexual behavior group. Comparison is made between those with same-sex sexual partners and those with exclusively opposite-sex sexual partners (considering men and women separately). Relative risk ratios (RRR) are presented with 95% confidence intervals. For each sexual behavior group, individuals were placed into one of three categories: reporting no sexual function problem, reporting a problem but no or little distress, or reporting a sexual function problem and fair or a large amount of distress. The reference category was reporting no problem. Relative risks were then obtained for having a problem and no or a small amount of distress compared to no problem and for having a problem and a fair or large amount of distress compared to no problem. These relative risks were obtained for MSM/WSW, and for MSEW/WSEM and RRR's obtained showing the RRR for MSM compared

Table 2. Distribution of Reporting of Specified Sexual Problems and Distress Related to Problems, by Sex and Sexual Orientation.

Problem	Men MSEW (n = 4,536)	MSM (n = 273)	Women WSEM (n = 6124)	WSW (n = 517)
Lacked interest in have sex				
No problem reported	3,892 (85.4)	212 (78.8)	4,178 (66.0)	342 (64.4)
Problem and no or little distress	543 (12.5)	50 (17.4)	1,556 (27.6)	135 (27.2)
Problem and fair or large amount of distress	101 (2.1)	11 (3.9)	390 (6.4)	40 (8.4)
Lack enjoyment in sex				
No problem reported	4,324 (95.8)	235 (85.9)	5,408 (88.2)	437 (82.9)
Problem and no or little distress	162 (3.3)	30 (11.2)	515 (8.6)	59 (12.6)
Problem and fair or large amount of distress	49 (0.89)	8 (3.0)	201 (3.2)	21 (4.5)
Felt anxious during sex				
No problem reported	4,281 (95.0)	239 (88.0)	5,774 (95.0)	464 (91.2)
Problem and no or little distress	190 (3.8)	19 (6.9)	214 (3.1)	25 (4.3)
Problem and fair or large amount of distress	65 (1.3)	15 (5.2)	136 (2.0)	28 (4.5)
Felt physical pain as a result of sex				
No problem reported	4,464 (98.4)	255 (94.1)	5,673 (92.7)	462 (89.4)
Problem and no or little distress	56 (1.2)	7 (2.2)	249 (4.0)	31 (5.4)
Problem and fair or large amount of distress	16 (0.4)	11 (3.7)	202 (3.3)	24 (5.1)
Felt no excitement or arousal during sex				
No problem reported	4,405 (97.3)	244 (89.5)	5,636 (92.0)	467 (89.4)
Problem and no or little distress	98 (2.1)	15 (5.6)	349 (6.0)	33 (7.2)
Problem and fair or large amount of distress	33 (0.68)	14 (4.9)	138 (2.0)	17 (3.5)
Did not reach/took long time to reach climax				
No problem reported	4,128 (91.3)	225 (82.9)	5,109 (84.1)	395 (78.1)
Problem and no or little distress	348 (7.3)	33 (11.9)	784 (12.6)	82 (14.5)
Problem and fair or large amount of distress	60 (1.4)	15 (5.3)	231 (3.3)	40 (7.3)
Reached a climax more quickly than would like				
No problem reported	3,847 (85.1)	229 (83.8)	5,982 (97.9)	491 (95.4)
Problem and no or little distress	529 (11.7)	29 (10.1)	134 (2.1)	25 (4.3)
Problem and fair or large amount of distress	160 (3.2)	15 (6.1)	8 (0.07)	1 (0.26)
Had trouble getting or keeping an erection				
No problem reported	4,023 (87.9)	206 (74.8)	–	–
Problem and no or little distress	301 (7.3)	30 (11.9)	–	–
Problem and fair or large amount of distress	212 (4.8)	37 (13.3)	–	–
Had an uncomfortably dry vagina				
No problem reported	–	–	5,426 (86.9)	467 (88.1)
Problem and no or little distress	–	–	514 (9.6)	37 (8.2)
Problem and fair or large amount of distress	–	–	184 (3.5)	13 (3.8)

Note. MSM = men who have sex with men; WSW = women who have sex with women; RRR = relative risk ratios; CI = confidence interval.

to MSEW, and for WSW compared to WSEM. A subanalysis was also undertaken to assess whether the effect of age on sexual function reporting differed according to sexual behavior group using the sexual problem/distress variable as the outcome, and age as the independent covariate. The analysis was stratified by behavior group. Complex survey weights were applied to the data so distributions of key characteristics, including sex and age distributions, were reflective of the population of Great Britain as recorded in the 2011 census. All statistical analyses were conducted using STATA software version 14 (Stata Corp. Inc., College Station, TX).

Results

Sample characteristics

Table 1 presents the characteristics of the sample. The participants in our sample were 49.1% female and 51.0% male. Among women, 517

(6.7%) reported they had ever had sex with a woman involving genital contact, whereas among men 273 (5.3%) reported they had ever had sex with a man. Sexual identity was not included in our analysis, but descriptives were obtained to explore the overlap and differences in terms of sexual behavior and identity of the sample. In terms of sexual identity, over half of MSM identified as heterosexual, whereas one-quarter identified as gay and 16% as bisexual. Over two-thirds of WSW identified as heterosexual, whereas 16% identified as gay or lesbian and 17% as bisexual.

Differences in the most common sexual problems reported

Table 2 presents the characteristics of the sample in terms of their reported sexual problems and associated distress. Among women, regardless of sexual orientation, the most commonly reported sexual problem was lack of interest in sex (34%

Table 3. Unadjusted Multinomial Regression Models for Specified Sexual Problems and Associated Distress.

Unadjusted	MSM RRR (95% CI)	WSW RRR (95% CI)
Lack interest		
No problem	Ref.	
Problem and no or little distress	1.50 (1.05–2.14)	1.01 (0.79–1.29)
Problem and fair or high distress	2.06 (0.98–4.30)	1.34 (0.89–2.02)
Lack enjoyment		
No problem	Ref.	
Problem and no or little distress	3.74 (2.30–6.08)	1.56 (1.10–2.20)
Problem and fair or high distress	3.70 (1.56–8.77)	1.51 (0.85–2.66)
Anxious		
No problem	Ref.	
Problem and no or little distress	1.98 (1.16–3.38)	1.47 (0.87–2.47)
Problem and fair or high distress	4.46 (2.28–8.72)	2.41 (1.47–3.94)
Pain		
No problem	Ref.	
Problem and no or little distress	2.01 (0.82–4.90)	1.42 (0.92–2.18)
Problem and fair or high distress	9.99 (4.36–22.86)	1.62 (0.97–2.72)
Problem with excitement or arousal		
No problem	Ref.	
Problem and no or little distress	2.95 (1.58–5.51)	1.23 (0.77–1.97)
Problem and fair or high distress	7.81 (3.82–16.00)	1.77 (1.00–3.14)
Problem long time to reach orgasm		
No problem	Ref.	
Problem and no or little distress	1.78 (1.13–2.80)	1.24 (0.92–1.67)
Problem and fair or high distress	4.25 (2.22–8.14)	2.39 (1.60–3.56)
Problem premature orgasm		
No problem	Ref.	
Problem and no or little distress	0.87 (0.56–1.37)	2.14 (1.26–3.64)
Problem and fair or high distress	1.97 (1.07–3.62)	Only 1 observation
Problem getting or maintaining erection		
No problem	Ref.	
Problem and no or little distress	1.93 (1.24–3.01)	–
Problem and fair or high distress	3.25 (2.13–4.95)	–
Problem with uncomfortably dry vagina		
No problem	Ref.	
Problem and no or little distress	–	0.84 (0.56–1.26)
Problem and fair or high distress	–	1.07 (0.53–2.16)

Note. MSM = men who have sex with men; WSW = women who have sex with women; RRR = relative risk ratios; CI = confidence interval.

The bold values display statistically significant differences in results.

WSEM vs 35.6% WSW). Among men differences exist. For MSM, trouble keeping an erection was the most commonly reported problem (25.2%), while among MSEW reaching a climax more quickly than would have liked was the most commonly reported problem (14.9%).

The correspondence between the reporting of a sexual problem and associated distress

Table 2 indicates that not all individuals who report a problem also experience considerable distress related to the sexual problem. Among MSEW, for example, 12.5% reported that they lacked an interest in sex and this caused no or little distress, whereas 2.1% reported this problem as associated with a fair or large amount of distress.

Comparison of sexual problems and distress reporting across behavior groups (men)

Tables 3 and 4 present results of the unadjusted and adjusted multinomial models. Focusing first on differences among men, when considering the problems of “lack of enjoyment in sex,” “felt anxious during sex,” “felt no excitement or arousal during sex,” “did not reach/took a long time to reach climax,” “getting or keeping an erection,” MSM are significantly more likely than MSEW to report experiencing the problem and no or little associated distress and experiencing the problem and fair or high distress compared to reporting they did not experience the problem. Considering the problem of “lack of interest in sex” MSM are significantly more likely than MSEW to report the problem and experiencing little or no associated distress compared to reporting they did not

Table 4. Adjusted Multinomial Regression Models for Specified Sexual Problems and Associated Distress.

Adjusted ^a	MSM RRR (95% CI)	WSW RRR (95% CI)
Lack interest		
No problem	Ref.	Ref.
Problem and no or little distress	1.48 (1.03–2.12)	1.17 (0.90–1.50)
Problem and fair or high distress	2.05 (0.95–4.41)	1.47 (0.97–2.23)
Lack enjoyment		
No problem	Ref.	Ref.
Problem and no or little distress	3.63 (2.19–6.03)	1.49 (1.04–2.13)
Problem and fair or high distress	3.68 (1.47–9.20)	1.42 (0.80–2.53)
Anxious		
No problem	Ref.	Ref.
Problem and no or little distress	1.86 (1.06–3.26)	1.24 (0.73–2.11)
Problem and fair or high distress	4.10 (2.06–8.17)	1.98 (1.20–3.28)
Pain		
No problem	Ref.	Ref.
Problem and no or little distress	1.93 (0.76–4.92)	1.35 (0.86–2.13)
Problem and fair or high distress	9.80 (3.95–24.27)	1.68 (1.01–2.79)
Problem with excitement or arousal		
No problem	Ref.	Ref.
Problem and no or little distress	2.87 (1.54–5.33)	1.21 (0.75–1.97)
Problem and fair or high distress	6.49 (2.96–14.26)	1.50 (0.84–2.67)
Problem long time to reach orgasm		
No problem	Ref.	Ref.
Problem and no or little distress	1.61 (1.01–2.58)	1.10 (0.81–1.49)
Problem and fair or high distress	3.85 (1.91–7.78)	1.79 (1.18–2.72)
Problem premature orgasm		
No problem	Ref.	Ref.
Problem and no or little distress	0.98 (0.62–1.54)	1.95 (1.16–3.26)
Problem and fair or high distress	1.99 (1.11–3.58)	Only 1 observation
Problem getting or maintaining erection		
No problem	Ref.	Ref.
Problem and no or little distress	1.78 (1.11–2.85)	–
Problem and fair or high distress	2.60 (1.67–4.04)	–
Problem with uncomfortably dry vagina		
No problem	Ref.	Ref.
Problem and no or little distress	–	1.03 (0.68–1.56)
Problem and fair or high distress	–	1.16 (0.59–2.30)

Note. MSM = men who have sex with men; WSW = women who have sex with women; RRR = relative risk ratios; CI = confidence interval.

^aAdjusted for age at interview, and number of sexual partners in the last year, ethnicity, and IMD quintile.

The bold values display statistically significant differences in results.

experience the problem. With regards to the reporting of premature orgasm and the experience of pain during sex, MSM are significantly more likely than MSEW to report experiencing the problem and fair or high distress compared to reporting they did not experience the problem.

Comparison of sexual problems and distress reporting across behavior groups (women)

Fewer significant differences were detected among women. When considering the problems “lack of enjoyment in sex” and premature orgasm, WSW are significantly more likely than WSEM to report the problem and experiencing little or no associated distress compared to reporting they did not experience the problem. With regards to reporting of “felt anxious during sex,” “felt pain during sex,” and “did not or took a long time to reach a

climax,” WSW are significantly more likely than WSEM to report the problem and experiencing fair or high distress compared to reporting they did not experience the problem.

The impact of age on the reporting of sexual problems and distress

The subanalysis examining whether age differentially impacted on the outcome of reporting sexual problems and associated distress according to sexual behavior group showed no statistically significant effects of age aside from problems getting or maintaining an erection for both MSM and MSEW. For women, age increased the likelihood of reporting a problem or distress relating to having an uncomfortably dry vagina and decreased likelihood of reporting anxiety related to sex for WSEM. For WSW, age did not seem to impact

on the likelihood of reporting any sexual problem or distress (data not shown).

Discussion

This study examined sexual problems and the consideration of sexual problems as distressing among sexually active men and women in Great Britain, providing new information on differences by sexual behavior group (as defined by the reporting of same-sex sexual partners).

Differences in the most common reported sexual problems

Previous research has indicated gender differences in the reporting of sexual problems. The results of this study suggest that differences also exist by sexual behavior group but only when considering men. For MSM, the most frequently reported problem was trouble getting or keeping an erection, whereas amongst MSEW it was premature climax. It should be noted however that the percentages reporting reaching a climax more quickly than they would like was similar for MSM and MSEW. In comparison, a greater percentage of MSM reported erectile difficulties (25.2%) compared to MSEW (22.1%). This finding is only partially consistent with that of Bancroft et al. (2005) who found the prevalence of erectile difficulties to be higher among gay men and rapid ejaculation to be more prevalent among heterosexual men. However, Bancroft's sample is not directly comparable to that used in this study, and draws upon a convenience sample and defines sexual orientation based on identity. It is important to note that although 25.2% of MSM reported trouble getting or keeping an erection in our analysis, not all reported associated distress (11.9% reported problem and no or little distress versus 13.3% reported the problem and a fair or large amount of distress). For anally receptive MSM, it may not be expected or necessarily desired that they have an erection, which could make this question less relevant to the group of MSM who would not necessarily consider inability to get or maintain an erection as problematic or distressing. A limitation of the literature on sexual problems has been the

predominant use of scales designed with heterosexual sex for reference. For women, the most commonly reported sexual problem did not differ according to sexual behavior group.

Differences in the reporting of sexual problems and associated distress

In response to the growing criticism of the medicalization of sexual response (Bancroft, 2002; Bass, 2011; Graham, 2010; Tiefer, 2010), we considered the reporting of distress in addition to the reporting of a sexual problem. In the adjusted multinomial models among men, MSM were more likely to report a range of sexual problems and higher levels of distress in comparison to MSEW. Documented differences in etiological factors between homosexual and heterosexual men (Sandfort & de Keizer, 2001) may explain differences in reported problems and distress found in this study, although it should be noted that over half our sample of MSM identified as heterosexual. Sandfort and de Keizer (2001) outlined distinct factors such as alcohol and drug use, sexually transmitted diseases, and intrapsychic conflict as being associated with sexual problems. Depression has also been found to be a risk factor for sexual dysfunction (Atlantis & Sullivan, 2012). MSM are more likely to report substance use, are more likely to perceive their health as bad or very bad, and are more likely to report being treated for depression (Mercer et al., 2016).

In terms of distress, issues of gender and masculinity may be important. Fergus, Gray, and Fitch's (2002) study of sexual dysfunction among men with prostate cancer found sex was seen as an expression of manhood and sexual dysfunction posing "a threat to who they were" (p. 310). Fergus et al. (2002) noted that feelings of "relative lack" (p. 310) were more pronounced for gay men in the sample who could compare themselves more readily. Connected to this, Sandfort and de Keizer (2001) discussed how sexual script being less readily available for same-sex interaction among men can promote sexual exploration but also create uncertainty.

Past research has also found diagnosis of sexually transmitted disease (STDs) to be associated with distress, which can continue after successful

treatment (Bhugra & Wright, 2007). In our sample, a significantly ($p < .001$) greater percentage of MSEW reported never have been diagnosed with an STD (87.1%) compared to MSM (65.2%) which may contribute to MSM being more likely to report distress about certain problems compared to MSEW in our results.

For women in particular, some of the differences are not of particularly large magnitude. For example, outcomes including lacking interest in sex, and problems with excitement or arousal showed no statistically significant difference for WSW relative to WSEM. Other outcomes including lacking enjoyment, and time taken to reach an orgasm showed only minimal differences for WSW relative to WSEM. Overall, the number of outcomes shown to be statistically significant were fewer, and the magnitude of the difference generally smaller for the comparison between women than the comparison between men. The reasons why greater differences may exist between men compared to women in terms of sexual orientation, however, remains unclear. Women have been found to be more likely than men to endorse beliefs of sexual fluidity in which sexuality is believed to be changeable, perhaps indicating women are less reluctant, or have less psychological obstacles toward accepting attraction to and having sexual relations with someone of the same sex despite perhaps identifying as heterosexual (Katz-Wise & Hyde, 2015). This could in turn reduce feelings of sexual function problems or distress when having a partner of the same sex for women, relative to men who may be more likely to have fixed ideas about sexual identity and behaviors. Future qualitative research into sexual expectations and cultural and psychological norms that may influence how sexual problems are perceived and defined is recommended.

The main strength of this data was its reliance on national probability data, which could be considered representative of WSW and MSM in Great Britain, and therefore present a more accurate picture of sexual problems and associated distress among these groups. Furthermore, the response rate for Natsal-3 is similar to other large-scale social surveys in Britain, and higher

than other studies focused on sexual response (Mitchell et al., 2016b).

There were several caveats to this study. Questions on sexual problems and associated distress were asked only to those sexually active. This is likely to underestimate the prevalence of those experiencing sexual problems and associated distress by excluding those sexually inactive. Mitchell et al.'s (2013) analysis of Natsal-3 data found that among those ever sexually active, 21% of men and 17% of women reported avoiding sex because of a sexual difficulty. Secondly, our groups of men and women who reported a same-sex sexual partner in their lifetime included both those who reported same-sex sexual partners exclusively and those who report both same-sex and opposite-sex partners. Further distinguishing WSW and MSM by exclusively same-sex partners or both same- and opposite-sex partners would have allowed for a more nuanced analysis, and an indication of whether the same outcomes are found among different categories of WSW and MSM, which would have aided in providing a fuller picture of sexual problems and distress. Small group sizes, however, made the further division of these groups difficult. Thirdly, here we have selected the term opposite-sex partners when considering those identifying as female having male partners, and those identifying as male having female partners. This term was selected due to the wording of the Natsal questionnaire; however, it is not clear how for example nonbinary partners are categorized. It is the choice of the respondent to select whether they believe their partners to be male or female; however, other options such as nonbinary are not currently available for selection when respondents complete the Natsal questionnaire. The opportunity to select additional gender categories, or for open text for the respondent to describe the gender of their partners, could prove informative and allow for a more nuanced categorization and analysis. In addition, the wording of the question for inclusion into the sexual problems section of the questionnaire asked about sex when referring to same-sex practices, but intercourse when asking about opposite-sex practices, meaning the definitions are not entirely parallel. Finally, the data was collected between 2010 and 2012.

Comparison of Natsal-1 (1990), Natsal-2 (2000), and Natsal-3 (2010) reveals an increase in the reporting of at least one sexual partner of the same sex over time, particularly among women (Mercer et al., 2013). As far as we are aware, a population based survey on sexual lifestyles and attitudes has not been undertaken in the Great Britain since Natsal-3, so it is not easy to determine the extent to which there may have been an increase in the reporting of same-sex sexual behavior in the last decade, and the extent to which this may influence the results. In the last decade there has been rapid transformation in understandings of sexual identity and societal perceptions of same-sex behavior. Carrillo and Hoffman (2018), for example, noted the emergence of the terms *heteroflexible* and *bicurious*, which they said reflect represent a shift in sexual attitudes. These shifts may impact on the experience and perceptions of those engaging in same-sex sexual behavior and have an impact on outcomes such as the experience of sexual problems and distress. Despite these limitations, Natsal-3 is a rich national data source for examining sexuality and sexual health.

Conclusion

To date, research on sexual response and associated distress has tended to focus on heterosexual women. Previous research, nonetheless, has revealed differences between men and women and differences in the reporting of sexual response problems according to sexual orientation. However, it is also important to include consideration of sexual distress about problems.

Research on sexual response problems commonly uses sexual identity as a measure of sexual orientation comparing gay/lesbian (and to a lesser extent bisexual) individuals with individuals identifying as heterosexual. Nonetheless, sexual attraction and same-sex sexual behavior are also important components of sexual orientation. As the size and composition of sexual minority populations vary based on definition of sexual orientation, research and services should consider which definition best serves their needs (Geary et al., 2018). This is especially the case with young women, where there is substantial

difference in those reporting lesbian or bisexual identity and those reporting recent same-sex sexual behavior. Our findings show that to some extent WSW, and to a greater extent MSM, have different sexual health needs and report sexual health problems and distress to a different extent than is the case for individuals who only have opposite-sex sexual partners.

Acknowledgments

We would like to thank Mathijs Lucassen for proof reading the final draft of this paper.

Disclosure statement

The authors report no conflict of interest relevant for this manuscript.

Data availability

The data that support the findings of this study are openly available in the UK Data Service at <http://doi.org/10.5255/ukda-sn-7799-2>, Reference number: SN:7799

References

- Atlantis, E., & Sullivan, T. (2012). Bidirectional association between depression and sexual dysfunction: A systematic review and meta-analysis. *The Journal of Sexual Medicine*, 9(6), 1497–1507. doi:10.1111/j.1743-6109.2012.02709.x
- Bancroft, J. (2002). The medicalization of female sexual dysfunction: The need for caution. *Archives of Sexual Behavior*, 31(5), 451–455.
- Bancroft, J., Carnes, L., Janssen, E., Goodrich, D., & Long, S. L. (2005). Erectile and ejaculatory problems in gay and heterosexual men. *Archives of Sexual Behavior*, 34(3), 285–297. doi:10.1007/s10508-005-3117-7
- Bancroft, J., Loftus, J., & Long, J. S. (2003). Distress about sex: A national survey of women in heterosexual relationships. *Archives of Sexual Behavior*, 32(3), 193–208. doi:10.1007/s10508-010-9679-z
- Bass, B. A. (2011). The sexual performance perfection industry and the medicalization of male sexuality. *The Family Journal*, 93, 337–340. doi:10.1177/1066480701093015
- Basson, R. (2000). The female sexual response: A different model. *Journal of Sex & Marital Therapy*, 26(1), 51–65. doi:10.1080/009262300278641
- Beaber, T. E., & Werner, P. D. (2009). The relationship between anxiety and sexual functioning in lesbians and heterosexual women. *Journal of Homosexuality*, 56(5), 639–654. doi:10.1080/00918360903005303

- Bhugra, D., & Wright, B. (2007). Sexual dysfunction in gay men and lesbians. *Psychiatry*, 6(3), 125–129. doi:10.1016/j.mppsy.2007.01.003
- Blair, K. L., Cappell, J., & Pukall, C. F. (2018). Not all orgasms were created equal: Differences in frequency and satisfaction of orgasm experiences by sexual activity in same-sex versus mixed-sex relationships. *The Journal of Sex Research*, 55(6), 719–733. doi:10.1080/00224499.2017.1303437
- Breyer, B. N., Smith, J. F., Eisenberg, M. L., Ando, K. A., Rowen, T. S., & Shindel, A. W. (2010). The impact of sexual orientation on sexuality and sexual practices in North American medical students. *The Journal of Sexual Medicine*, 7(7), 2391–2400. doi:10.1111/j.1743-6109.2010.01794.x
- Carrillo, H., & Hoffman, A. (2018). Straight with a pinch of bi': The construction of heterosexuality as an elastic category among adult US men. *Sexualities*, 21(1–2), 90–108. doi:10.1177/1363460716678561
- Coleman, E., Hoon, P. W., & Hoon, E. F. (1983). Arousability and sexual satisfaction in lesbian and heterosexual women. *The Journal of Sex Research*, 19(1), 58–73. doi:10.1080/00224498309551169
- Erens, B., Phelps, A., Clifton, S., Mercer, C. H., Tanton, C., Hussey, D., ... Johnson, A. M. (2014). Methodology of the third British National Survey of Sexual Attitudes and Lifestyles (Natsal-3). *Sexually Transmitted Infections*, 90(2), 84–89. doi:10.1136/sextrans-2013-051359
- Fergus, K. D., Gray, R. E., & Fitch, M. I. (2002). Sexual dysfunction and the preservation of manhood: Experiences of men with prostate cancer. *Journal of Health Psychology*, 7(3), 303–316. doi:10.1177/1359105302007003223
- Frederick, D. A., St. John, K. H., Garcia, J. R., & Lloyd, E. A. (2018). Differences in orgasm frequency among gay, lesbian, bisexual, and heterosexual men and women in a U.S. national sample. *Archives of Sexual Behavior*, 47(1), 273–288. doi:10.1007/s10508-017-0939-z
- Garcia, J. R., Lloyd, E. A., Wallen, K., & Fisher, H. E. (2014). Variation in orgasm occurrence by sexual orientation in a sample of U.S. singles. *The Journal of Sexual Medicine*, 11(11), 2645–2652. doi:10.1111/jsm.12669
- Geary, R. S., Tanton, C., Erens, B., Clifton, S., Prah, P., Wellings, K., ... Mercer, C. H. (2018). Sexual identity, attraction and behavior in Britain: The implications of using different dimensions of sexual orientation to estimate the size of sexual minority populations and inform public health interventions. *PLoS One*, 13(1), e0189607. doi:10.1371/journal.pone.0189607
- Graham, C. A. (2010). The DSM diagnostic criteria for female orgasmic disorder. *Archives of Sexual Behavior*, 39(2), 256–270. doi:10.1007/s10508-009-9542-2
- Harper, A. J., & Ginicola, M. M. (2017). Counseling bisexual/pansexual/polysexual clients. In M. M. Ginicola, C. Smith, and J. M. Filmore, (Eds.), *Affirmative counseling with LGBTQI+ People*. Alexandria, VA: American Counseling Association.
- Hoy, A., & London, A. S. (2018). The experience and meaning of same-sex sexuality among heterosexuality identified men and women: An analytic review. *Sociology Compass*, 12(7), e12596–17. doi:10.1111/soc4.12596
- Johnson, A. London School of Hygiene and Tropical Medicine, Centre for Sexual and Reproductive Health Research, Natcen Social Research, & Mercer, C. (2017). *National Survey of Sexual Attitudes and Lifestyles, 2010-2012*. [data collection] (UK Data Service, SN:7799). doi:10.5255/ukda-sn-7799-2
- Katz-Wise, S., & Hyde, J. S. (2015). Sexual fluidity and related attitudes and beliefs among young adults with a same-gender orientation. *Archives of Sexual Behavior*, 44(5), 1459–1470. doi:10.1007/s10508-014-0420-1
- King, M., Holt, V., & Nazareth, I. (2007). Women's views of their sexual difficulties agreement and disagreement with clinical diagnoses. *Archives of Sexual Behavior*, 36(2), 281–288. doi:10.1007/s10508-006-9090-y
- Laumann, E. O., Nicolosi, A., Glasser, D. B., Paik, A., Gingell, C., Moreira, E., & Wang, T. (2005). Sexual problems among women and men aged 40–80 y: Prevalence and correlates identified in the Global Study of Sexual Attitudes and Behaviors. *International Journal of Impotence Research*, 17(1), 39–57. doi:10.1038/sj.ijir.3901250
- Lindley, L. L., Walsemann, K. M., & Carter, J. W. Jr. (2012). The association of sexual orientation measures with young adults' health-related outcomes. *American Journal of Public Health*, 102(6), 1177–1185. doi:10.2105/AJPH.2011.300262
- Mercer, C. H., Fenton, K. A., Johnson, A. M., Copas, A. J., Macdowall, W., Erens, B., & Wellings, K. (2005). Who reports sexual function problems? Empirical evidence from Britain's 2000 National Survey of Sexual Attitudes and Lifestyles. *Sexually Transmitted Infections*, 81(5), 394–399. doi:10.1136/sti.2005.015149
- Mercer, C. H., Prah, P., Field, N., Tanton, C., Macdowall, W., Clifton, S., ... Sonnenberg, P. (2016). The health and wellbeing of men who have sex with men (MSM) in Britain: Evidence from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3). *BMC Public Health*, 16(1), 525. doi:10.1186/s12889-016-3149-z
- Mercer, C. H., Tanton, C., Prah, P., Erens, B., Sonnenberg, P., Clifton, S., ... Johnson, A. M. (2013). Changes in sexual attitudes and lifestyles in Britain through the life course and over time: Findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). *The Lancet*, 382(9907), 1781–1794. doi:10.1016/S0140-6736(13)62035-8
- Mitchell, K. R., Geary, R., Graham, C., Clifton, S., Mercer, C. H., Lewis, R., ... Wellings, K. (2016). Sexual function in 16- to 21-Year-Olds in Britain. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, 59(4), 422–428. doi:10.1016/j.jadohealth.2016.05.017
- Mitchell, K. R., Jones, K. G., Wellings, K., Johnson, A. M., Graham, C. A., Datta, J., ... Mercer, C. H. (2016).

- Estimating the prevalence of sexual function problems: The impact of morbidity criteria. *The Journal of Sex Research*, 53(8), 955–967. doi:10.1080/00224499.2015.1089214
- Mitchell, K. R., Mercer, C. H., Ploubidis, G. B., Jones, K. G., Datta, J., Field, N., ... Wellings, K. (2013). Sexual function in Britain: Findings from the third National Survey of Sexual Attitudes and Lifestyles (Nastal-3). *The Lancet*, 382(9907), 1817–1829. doi:10.1016/S0140-6736(13)62366-1
- Moynihan, R. (2003). The making of disease: Female sexual dysfunction. *BMJ*, 325, 45. doi:10.1136/bmj.326.7379.45
- Oberg, K., Fugl-Meyer, A. R., & Fugl-Meyer, K. S. (2004). On categorization and quantification of women's sexual dysfunctions: An epidemiological approach. *International Journal of Impotence Research*, 16, 261–269. doi:10.1038/sj.ijir.3901151
- Payne, R. A., & Abel, G. A. (2012). UK indices of multiple deprivation – a way to make comparison across constituent countries easier. *Health Statistics Quarterly*, 53, 22–37.
- Richters, J., Altman, D., Badcock, P. B., Smith, A. M. A., de Visser, R. O., Grulich, A. E., ... Simpson, J. M. (2014). Sexual identity, sexual attraction and sexual experience: the second Australian Study of Health and Relationships. *Sexual Health*, 11(5), 451–460. doi:10.1071/SH14117
- Rosen, R. C. (2000). Prevalence and risk factors of sexual dysfunction in men and women. *Current Psychiatry Reports*, 2(3), 189–195. doi:10.1007/s11920-996-0006-2
- Sandfort, T. G. M., & de Keizer, M. (2001). Sexual problems in gay men: An overview of empirical research. *Annual Review of Sex Research*, 12, 93–120.
- Silva, T. J. (2018). Helping' a buddy out': perceptions of identity and behaviour among rural straight men that have sex with each other. *Sexualities*, 21(1–2), 68–89. doi:10.1177/1363460716678564
- Tiefer, L. (2010). Still resisting after all these years: An update on sexuo-medicalization and on the new view campaign to challenge the medicalization of women's sexuality. *Sexual and Relationship Therapy*, 25(2), 189–196. doi:10.1080/14681991003649495
- Witting, K., Santtila, P., Varjonen, M., Jern, P., Johansson, A., Von Der Pahlen, B., & Sandnabba, K. (2008). Female sexual dysfunction, sexual distress, and compatibility with partner. *Journal of Sexual Medicine*, 5, 258.