A decline in patient disclosure of heterosexuality in the English general practice patient survey: a longitudinal analysis of cross-sectional data

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A decline in patient disclosure of heterosexuality in the English general practice patient survey (GPPS): a longitudinal analysis of cross-sectional data

Running head: Sexual orientation disclosure in English Primary Care

Article Category: Health Services Research; original research

Harry Cross & Carrie D. Llewellyn

Department of Primary Care and Public Health, Brighton and Sussex Medical School, Watson Building, Village Way, Falmer Campus, Brighton BN1 9PH, UK

Correspondence to: Professor C D Llewellyn
Department of Primary Care and Public Health, Brighton and Sussex Medical School, Watson Building, Village Way, Falmer Campus, Brighton BN1 9PH, UK    c.d.llewellyn@bsms.ac.uk

2477 words

Key Messages

- LGBT patients have an increased incidence of a range of health problems
- Disclosure of SO affects access to appropriate healthcare
- The pattern of patient disclosure is changing in primary care
- Accurate monitoring of SO in primary care is necessary for healthcare equity
A decline in patient disclosure of heterosexuality in the English general practice patient survey (GPPS): a longitudinal analysis of cross-sectional data

Abstract

**Background**: Persistent health inequalities in relation to both healthcare experiences and health outcomes continue to exist among patients identifying with a marginalised sexual orientation.

**Objective**: To compare the patterns of sexual orientation disclosure within primary care in England over a five-year period.

**Methods**: Descriptive analysis of cross-sectional, repeat measure, fully anonymised survey data of adults responding to the General Practice Patient Survey (GPPS) January 2012 to 2017. Participants from each year varied between 808,332 (2017) and 1,037,946 (2011/2012).

**Results**. The analysis samples comprised between 396963 and 770091 individuals with valid sexual orientation data depending on the year. For males, heterosexual disclosure decreased consistently from 92.3% to 91.2% from 2012 to 2017. Male patients reporting gay, bisexual and/or ‘other’ sexual orientations increased from 3.1% to 3.9%. For females, a larger reduction in heterosexual disclosure was recorded from 94% to 92.5%. Those reporting as lesbian, bisexual and/or ‘other’ increased from 1.82% to 2.68%, with the largest increase seen in the reporting of bisexuality, which nearly doubled from 2012 until 2017 (0.56% to 0.99%).

**Conclusion**. We found a year on year decline in patients reporting a heterosexual identity and an increase in the proportions of people reporting being either gay, bisexual, ‘other
sexual orientation’ or preferring not to say. Heteronormative environments extend to healthcare settings, which may put increased stress on MSO individuals attending a GP practice. The introduction of environmental signs/symbols to show that a practice is inclusive of MSOs could reduce the potential stress experienced by patients.

Key words: Disclosure; General Practice Patient Survey; LGB; primary care; sexual identity; sexual orientation
Background

It is well documented that significant health disparities exist between people who report marginalized sexual orientations (MSO) (lesbian, gay and bisexual (LGB)) and that non-disclosure of sexual orientation (SO) within healthcare settings can further exacerbate these disparities (1). There is large variation in estimates of MSO populations in the UK depending on how the question is asked and the purpose of the monitoring. Barriers to disclosure due to fear of discrimination and non-confidentiality also makes accurately surveying this population more difficult (2). Despite this, it is believed that over 1.1 million people over the age of 16 identify as LGB, and that approximately 200,000-500,000 people identify as transgender (trans) in the UK (3,4). There is also considerable diversity between sexual identity, attraction and behaviours within individuals adding to the complexity when disclosing and consequently monitoring (5). As same-sex attraction becomes less stigmatised, it is important that barriers to disclosure are also eradicated in healthcare so that inequities in health outcomes, for example increased rates of: depression; anxiety; self-harm, suicide, sexually transmitted infections and HIV; substance use; family rejection; homelessness and isolation (6,7,8), and inequities in healthcare experiences can be properly monitored and evaluated.

There is a suggestion that LGB figures have increased since 2012 (9), suggesting a greater proportion of people identifying or disclosing LGB or other marginalised identities, although accurate figures in healthcare are sparse. This study sought to explore the proportions of people self-identifying as LGB or ‘other sexual orientation’ within primary care in England and to assess whether SO disclosure amongst patients in general practice has changed over time in either direction. In order to accurately understand health inequities we first need to
better understand whether monitoring using databases generated in different health settings are reflective of people identifying as LGB and whether people are choosing to self-disclose in these settings. The General Practice Patient Survey (GPPS) provided a unique opportunity to look at the patterns of sexual orientation disclosure over time.

Methods

Study design

This study utilised repeat measures, cross-sectional, fully anonymised survey data.

Data

The General Practice Patient Survey (GPPS)

The anonymous GPPS survey data is collected by Ipsos-MORI on behalf of NHS England. The GPPS is predominantly a postal survey that explores patients’ healthcare experiences and their perceived level of health, while also collecting demographical information. Data collection started in 2006 and its primary objective was to produce data on how well primary care providers were performing locally, regionally and nationally. Technical annexes are available for each year from the GPPS website for more information (10). The GPPS sample size was determined yearly for each practice to deliver a likely confidence interval (CI) of between ±7-9 percentage points (two-tailed, at the 95% level), on a worst case scenario 50/50 question where the magnitude of the CI is consistent between practices and none have particularly wide intervals (11).

Eligibility criteria
Participants were eligible for the survey if they were 18 years or older, had a valid NHS number and had been registered at a practice for more than six months. As over 99% of the English population are registered at a practice, nearly the whole adult population were eligible. Additional eligibility was added in 2009 to ensure that patients cannot receive more than one survey in a 12-month period and was done to reduce survey fatigue.

A new weighting system was introduced into the GPPS in June 2011 and consequently data following this cannot be compared with datasets collected before mid-2011. Details of the weighting strategy are in the GPPS technical annex. For this reason, only data collected after June 2011 was used in this assessment. To explore the longitudinal changes in SO disclosure, we used weighted data from the most recent GPPS datasets.

Under the recommendation from Ipsos-MORI in order to compare survey data across multiple years, the change in the data collection to annually for the Year 11 GPPS consequently means only Wave 2 data from Years 6-10 were included in this analysis. This is because Wave 2 data was collected over the same time frame (January-April) as the annual data collections. Therefore, the set of data that are reported here are surveys collected January-April 2012 to 2017. Survey respondents from each year varied between 808,332 (2017) and 1,037,946 (2011/2012) (response rates varied between 32.5%-38.9%) (Table 1).

**Self-reported sexual orientation (SO) measure**

The introduction of a SO question was prompted by the anticipated Public Sector Equality Duty in the UK Equality Act 2010. The single item question used in all years is in line with the

**Analysis**

Descriptive tables and graphs were constructed to allow the visualisation of the pattern of disclosure among English adults between January 2012 and 2017.

Missing data consisted of those: not asked the question; not asked the question in a particular wave; not answered; answered in error and/or multicoded. Missing responses were not imputed. All analyses have been executed in SPSS (12). Gender was coded as a binary response: either male or female. There was no option to record other responses. Those that declined to respond or had missing data were excluded from the analyses.

Ethical approval was not necessary for this retrospective analysis of anonymised data.

**Results**

The analysis samples comprised between 396963 and 770091 individuals with valid SO data depending on the year (Table 1). When the pattern of SO disclosure in the GPPS was tabulated and visualised across six years two findings emerged. Since January 2012, the trend for heterosexual disclosure has consistently decreased and the trend for individuals who ‘Prefer Not to Say’ steadily increased. All MSO groups showed increased proportions since 2012. For males, heterosexual disclosure decreased consistently from 92.3% to 91.2%
from 2012 to 2017 (Table 2). Gay, bisexual and ‘other’ males collectively increased from 3.1% to 3.9% in the same period. For females, similar patterns were apparent. A larger reduction in heterosexual disclosure was recorded for females from 94% to 92.5% (Table 3). Collectively, those reporting as lesbian, bisexual and ‘other’ increased from 1.82% to 2.68%, with the largest increase seen in the reporting of bisexuality, which nearly doubled in disclosure rates from 2012 until 2017 (0.56% to 0.99%) (Figures 1 and 2).

Conclusions

Summary of main findings

This study utilised a nationwide, repeat measures, cross-sectional survey that was able to capture the patterns of disclosure of sexual orientation (SO) from people registered in primary care settings. Longitudinal analysis of patterns of SO disclosure has also, to our knowledge, not been undertaken before over such a long period of time in England. We found that the pattern of sexual orientation disclosure is changing with a year on year decline in patients reporting a heterosexual identity and an increase in the proportions of people reporting being either gay, bisexual, ‘other sexual orientation’ or preferring not to say. Amongst women, a nearly two fold increase in those reporting bisexuality between 2012 to 2017 was demonstrated. These increases may seem modest but is likely to represent hundreds of thousands of individuals in the UK.

Comparison with previous research findings

Recent data from Britain’s 2010/2012 National Survey of Sexual Attitudes and Lifestyles (NATSAL 3) found that 2.5% of men and 2.4% of women reported a LGB identity (5). Our data demonstrate higher disclosure rates for both males and females within the GPPS at a
comparable time period, although it is not known whether disclosure on the GPPS reflects disclosure rates in general practice.

There is a lack of literature focusing on the health of women who identify as an MSO. The majority of research on LGB health has been focused on sexual health, for which, traditionally, women who have sex with women (WSW) have been perceived as a low risk group and their health needs such as mental health or health behaviours consequently overlooked (1). It is essential that the visibility of women within LGB research is improved to ensure the health disparities are not further neglected. People reporting MSO, especially bisexual women, report the worst experiences in healthcare and worst physical and mental health outcomes (13-16). These health disparities have been attributed to biphobia experienced within both mainstream and LGB communities, which contribute to minority stress in addition to the heteronormativity that lesbian and gay people also experience (17,18). It has been shown that bisexual men are significantly less likely to disclose their SO than gay men, which may contribute to a lack of access to appropriate healthcare (19,20). It is evident that barriers to bisexuality disclosure exist, more so than other minority SOs, which may contribute towards worse health outcomes. However it is encouraging that bisexuality disclosure is increasing in England as the increased visibility of the most marginalised in health datasets is important for monitoring and understanding how to improve outcomes.

Increased rates of LGB disclosure have also recently been recorded in the United States (21). There are very little available UK data mapping disclosure patterns of SO. This is especially concerning considering the Public Sector Equality Duty (2011) requires public sector
institutions, including the NHS, to monitor equalities information on SO. The introduction of a question on SO was considered for the 2011, UK national census, however as stigma and other barriers still exist around SO disclosure, and as the survey is completed by a single householder on behalf of all household members, it was thought that this would result in poor-quality data. SO was the only protected characteristic under the Equality Act (2010) not to be included in the 2011 census. The continued failure of many public services and institutions to monitor SO is likely contributing to the unaddressed worse health status for individuals identifying as an MSO. To ensure that sexual orientation is asked in a uniform, non-judgemental manner within healthcare settings, the ‘2017 Sexual Orientation Monitoring Information Standard’ (22) issued the wording that must be used when collecting sexual orientation and gender identity health data in the UK. This may make future monitoring of trends of disclosure more robust.

Ellison and Gunstone (2009) explored the reasons why people chose ‘other’ on surveys (23). The greatest proportion of people who identified as ‘other’ wrote that they did not want to reveal their SO; they essentially contributed to ‘prefer not to say’. Otherwise, the most common reasons for identifying as ‘other’ were because individuals considered themselves to be more sexually flexible, rejecting the limited SO responses.

**Strengths and limitations**

The cross-sectional nature of this dataset, with the potential to sample 99% of the English population is a key strength of this study. The data has also been weighted to ensure that populations with different response rates, such as gender and differences in degree of deprivation, are more equally represented in the final results. While the GPPS response rates were around 36% across the six years, this is in line with similar surveys exploring
patient experiences. Additionally, in surveys with large and proportional sampling strategies, such as the GPPS, response rates are only weakly associated with non-response bias (24).

Public Health England (PHE) undertook a formal systematic review to estimate the size of the LGBT population and found 22 relevant, national surveys, including the GPPS, which produced numbers ranging from 0.9-5.5% of the population (25). PHE recognised these estimates are likely to be undercounts, as with the GPPS data. We know from the literature that about 15% of women and 5% of men report having same-sex sex sometime in their life, and about 17% of women and 7% of men age report some level of current same-sex attraction. This is compared to a much smaller percentage of people who self-identify as either gay or bisexual on surveys (5,26-28). As this was a secondary data analysis the measure applied is one that assesses sexual identity and not same sex attraction or behaviours. GPs should be aware that LGB issues are more comprehensive than the figures of identity disclosure in these data might show.

While weighting has been introduced into all analysis, it cannot be overlooked that this GPPS sample of individuals identifying as an MSO contains intrinsic bias towards wealthy, employed and privileged individuals who typically have better health and more social power, therefore more likely to disclose their SO. In addition, those identifying as non-binary were not captured in this database and those not responding to the binary gender question were excluded from analysis. The inability of the monitoring question to capture trans or non-binary genders in addition to gender assigned at birth is a limitation.

**Interpretation and implications**
Public Health England (PHE) have recognised that the significantly worse health of MSO populations is a major public health issue, which concerns over one million people in the UK. They have identified four key areas in their universal recommendations to support the delivery of improved health and wellbeing outcomes for LGBT individuals (29). Recognition of this vulnerable population at all levels is necessary to begin addressing these persistent inequities. The production of Joint Strategic Needs Assessments by community Directors of Public Health that explicitly focus on the needs of the local LGBT community will assist with producing specific strategies at reducing health inequalities. Secondly, the engagement of the LGBT community is required in order to produce guidance and frameworks that are made by the LGBT community, for the LGBT community (29). This could be done through public and patient engagement within England’s Clinical Commissioning Group level initiatives. PHE have also stressed the importance of monitoring the LGBT population, in line with the Public Sector Equality Duty, however apparent barriers exist in healthcare settings as SO is consistently not collected; education on the purpose and importance of monitoring may help address this. Finally, service provision must be tailored and commissioned to ensure they are accessible and appropriate for LGBT individuals (30). Heteronormative environments may almost certainly extend to the healthcare setting, which may put increased stress on MSO individuals when visiting a GP practice, clinic or hospital. The simple introduction of signs/symbols to show that a healthcare setting is inclusive of MSOs, like a rainbow flag or the Human Rights Campaign logo, has been shown to reduce the potential stress experienced by patients who identify as a MSO. However, these techniques should only be employed if LGBT acceptance is a quality the practice and HCPs within prioritise (1). It is not possible to ascertain whether endorsing an identity on the GPPS reflects disclosure to patients own GP practice or to the GP of LGB identities or same sex practices. Because
of this it is of importance that people feel comfortable talking about these issues with their GP and that the GP is equally competent to raise these issues non-judgmentally.

Acknowledgement

This work uses data provided by patients and collected by the NHS as part of their care and support. We acknowledge the role of NHS England with giving us access to the data in 2017 and Alex Pollard in early discussions of the project.

**Ethical approval:** An Integrated Research Approval System application for this project was submitted to the UK Health Research Authority, and it was recommended that ethical approval was not necessary for this retrospective analysis of anonymised data.

**Funding:** The article was a result of an unfunded MSc in Public Health dissertation conducted at Brighton & Sussex Medical School.

**Conflict of interest:** The authors declare that they do not have any conflict of interest with regards to the preparation of this article.
References


<table>
<thead>
<tr>
<th>Year</th>
<th>Data collection period</th>
<th>Number of waves in survey</th>
<th>Total number of surveys sent out</th>
<th>Total number of surveys returned</th>
<th>Response rate (%)</th>
<th>Number of practices with eligible patients per wave (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 6</strong></td>
<td>July 2011 – April 2012</td>
<td>2 (July and January)</td>
<td>2,742,373</td>
<td>1,037,946</td>
<td>37.8</td>
<td>W1: 8,262 W2: 8,207</td>
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<td><strong>Year 7</strong></td>
<td>July 2012 – April 2013</td>
<td>2 (July and January)</td>
<td>2,761,123</td>
<td>971,232</td>
<td>35.2</td>
<td>W1: 8,161 W2: 8,089</td>
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<td><strong>Year 8</strong></td>
<td>July 2013 – April 2014</td>
<td>2 (July and January)</td>
<td>2,631,209</td>
<td>903,357</td>
<td>34.3</td>
<td>W1: 8,011 W2: 7,976</td>
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<tr>
<td><strong>Year 9</strong></td>
<td>July 2014 – April 2015</td>
<td>2 (July and January)</td>
<td>2,640,017</td>
<td>858,361</td>
<td>32.5</td>
<td>W1: 7,935 W2: 7,860</td>
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<td><strong>Year 10</strong></td>
<td>July 2015 – March 2016</td>
<td>2 (July and January)</td>
<td>2,148,791</td>
<td>836,312</td>
<td>38.9</td>
<td>W1: 7,778 W2: 7,707</td>
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<td><strong>Year 11</strong></td>
<td>January 2017 – April 2017</td>
<td>1 (January)</td>
<td>2,157,769</td>
<td>808,332</td>
<td>37.4</td>
<td>W1: 7,559*</td>
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*only wave available for that year at time of analysis
Table 2: Sexual orientation disclosure by males within general practice patient survey (2012-2017)

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<tr>
<th>Sexual orientation category</th>
<th>January 2012 (% of valid responses) [95% CIs]</th>
<th>January 2013 (% of valid responses) [95% CIs]</th>
<th>January 2014 (% of valid responses) [95% CIs]</th>
<th>January 2015 (% of valid responses) [95% CIs]</th>
<th>January 2016 (% of valid responses) [95% CIs]</th>
<th>January 2017 (% of valid responses) [95% CIs]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual or straight</td>
<td>92.34 [92.23, 92.45]</td>
<td>92.06 [91.95, 92.17]</td>
<td>91.91 [91.79, 92.03]</td>
<td>91.71 [91.59, 91.83]</td>
<td>91.52 [91.40, 91.64]</td>
<td>91.20 [91.71, 91.91]</td>
</tr>
<tr>
<td>Gay or homosexual</td>
<td>1.99 [1.93, 2.05]</td>
<td>2.19 [2.13, 2.25]</td>
<td>2.32 [2.26, 2.38]</td>
<td>2.36 [2.29, 2.43]</td>
<td>2.35 [2.28, 2.42]</td>
<td>2.35 [2.30, 2.40]</td>
</tr>
<tr>
<td>Bisexual</td>
<td>0.56 [0.53, 0.59]</td>
<td>0.57 [0.54, 0.60]</td>
<td>0.63 [0.60, 0.66]</td>
<td>0.66 [0.62, 0.70]</td>
<td>0.74 [0.70, 0.78]</td>
<td>0.75 [0.72, 0.78]</td>
</tr>
<tr>
<td>Other</td>
<td>0.58 [0.55, 0.61]</td>
<td>0.59 [0.56, 0.62]</td>
<td>0.55 [0.52, 0.58]</td>
<td>0.64 [0.61, 0.67]</td>
<td>0.68 [0.64, 0.72]</td>
<td>0.74 [0.71, 0.77]</td>
</tr>
<tr>
<td>Number of valid responses</td>
<td>234327</td>
<td>232316</td>
<td>215119</td>
<td>203844</td>
<td>196745</td>
<td>380782</td>
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Table 3: Sexual orientation disclosure by females within the general practice patient survey (2012-2017)

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Heterosexual or straight</td>
<td>94.01 [93.92, 94.10]</td>
<td>93.79 [93.69, 93.89]</td>
<td>93.64 [93.54, 93.74]</td>
<td>93.33 [93.22, 93.44]</td>
<td>92.89 [92.78, 93.00]</td>
<td>92.45 [92.37, 92.53]</td>
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<tr>
<td>Lesbian, gay or homosexual</td>
<td>0.71 [0.68, 0.74]</td>
<td>0.73 [0.70, 0.76]</td>
<td>0.75 [0.71, 0.79]</td>
<td>0.83 [0.79, 0.87]</td>
<td>0.79 [0.75, 0.83]</td>
<td>0.92 [0.89, 0.95]</td>
</tr>
<tr>
<td>Bisexual</td>
<td>0.56 [0.53, 0.59]</td>
<td>0.62 [0.59, 0.65]</td>
<td>0.67 [0.64, 0.70]</td>
<td>0.74 [0.70, 0.78]</td>
<td>0.86 [0.82, 0.90]</td>
<td>0.99 [0.96, 1.02]</td>
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<tr>
<td>Other</td>
<td>0.55 [0.52, 0.58]</td>
<td>0.54 [0.51, 0.57]</td>
<td>0.56 [0.53, 0.59]</td>
<td>0.59 [0.56, 0.62]</td>
<td>0.71 [0.67, 0.75]</td>
<td>0.77 [0.74, 0.80]</td>
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<td>Number of valid responses</td>
<td>252240</td>
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