

Comfort with having sexual orientation recorded on official databases among a community and online sample of gay and bisexual men in Aotearoa New Zealand

A. H. Ludlam^{A,*} , H. Petousis-Harris^A , B. Arroll^A  and P. J. W. Saxton^B 

For full list of author affiliations and declarations see end of paper

*Correspondence to:

A. H. Ludlam
Department of General Practice & Primary Health Care, School of Population Health, School of Population Health, University of Auckland
Email: a.ludlam@auckland.ac.nz

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ABSTRACT

Introduction. Sexual orientation minorities have worse health outcomes than the heterosexual majority. In 2023, Aotearoa New Zealand (NZ) added sexual and gender identity items to the Census, offering actionable data for improving sexual identity and gender identity (SOGI) community health. However, this also raises questions about individuals' willingness to provide such information to Government and their comfort with data privacy and governance. **Methods.** Using data from gay, bisexual, and other men who have sex with men (GBM) participants of the Gay Auckland Periodic Sex Survey and Gay Men's Online Sex Survey 2014 cross-sectional surveys, the study question examined comfort having their sexual orientation recorded in official databases. A logistic regression model was used to identify independent predictors of comfort, including sociodemographic and behavioural variables. **Results.** Of 3173 participants who completed the question, 63.1% were comfortable with recording sexual orientation. Adjusted odds ratios showed less comfort among those identifying with an 'Other' ethnicity (AOR: 0.64, 95% CI: 0.43–0.96), identifying as bisexual (AOR: 0.45, 95% CI: 0.35–0.56), and those who did not believe their GP to be aware of their sexuality (AOR: 0.32, 95% CI: 0.26–0.40). No sexual behaviours were independently associated with comfort. **Discussion.** The majority of GBM participants reported comfort with having their sexual orientation recorded on official databases, but some are not, and this is patterned by sociodemographic variables. Officials should improve the safety and perceived relevance of sexual orientation data collection efforts to increase their representativeness and utility for sexual minority populations.

Keywords: data collection, disclosure, electronic health record, health disparities, sexual and gender minorities, sexual behaviour, sexual orientation, SOGI data.

Introduction

A wealth of research indicates that sexual orientation minorities experience poorer health outcomes than the heterosexual majority, including in sexual and mental health, suicidality, cancers, cardiovascular disease, ageing, weight, income, smoking, and drug and alcohol abuse.^{1–7} Many of these disparities occur in preventable health outcomes.⁸ To reduce such inequities, high quality data on sexual orientation minorities are required. At a clinical level, information about a patient's sexual orientation can lead to more effective care, including relevant screening, vaccinations, and referrals to peer-based services. Population-level data on the health of sexual orientation minorities can also be used to monitor progress, identify gaps, and improve the design and implementation of programmes.⁹

Internationally, although many countries have legal protections against discrimination on the basis of sexual orientation,^{10–12} few collect data in official instruments that measure whether health equity is being achieved. The United States and United Kingdom have made a public commitment to collect, analyse, and report sexual orientation and gender identity (SOGI) data to tackle health inequities experienced by lesbian, gay,

WHAT GAP THIS FILLS

What's already known: Sexual orientation and gender identity (SOGI) minority populations face known and preventable health inequities. However, SOGI data are not collected in routine data collection such as administrative health data, and there are limited studies exploring whether these populations are comfortable with having their data stored in these datasets.

What does this study add: The research offers estimates of comfort with having sexual identity data recorded in official datasets among the GBM population of NZ, contributing to a larger body of research that primarily focusses on disclosure in health care settings.

bisexual, transgender, intersex, queer, and other (LGBTIQ+) populations.^{13,14} Elsewhere, routinely collected data identifying SOGI minorities are scarce. Instead, public health intelligence systems have tended to rely on repeated national surveys for evidence,¹⁴ yet these often have small samples of SOGI individuals, a limited range of items relevant to this population, or are conducted at infrequent intervals. Consequently, actionable systematically collected data to improve the community and personal health of SOGI populations in a timely way remains absent.

Aotearoa New Zealand (NZ) has a relatively progressive record regarding SOGI populations, making it well placed to explore possible data collection innovations. Anti-discrimination protections were enacted in 1993,¹⁰ marriage equality in 2013,¹⁵ and so-called 'conversion therapy' was outlawed in 2022.¹⁶ In 2023 NZ added sexual identity and gender identity items to the Official Census,¹⁷ one of the first countries to do so, and Statistics New Zealand already collects LGBTIQ+ data in the regular House Economic Surveys and NZ Health Surveys.¹⁸

The NZ Government issues a confidential National Health Identifier (NHI) for health care, containing age, ethnicity, and gender, but not sexual orientation. Similarly, while some sexual health clinics record sexuality, most general practices don't. Considering that in 2014 only half of gay, bisexual, and other men who have sex with men (GBM) in NZ had disclosed their sexuality to their GP,¹⁹ these potentially represent missed opportunities to collect data that could improve care of SOGI populations. In addition, NZ like other countries, is shifting towards using 'Big Data' to inform policy decision making. These developments present both opportunities to improve data on SOGI populations and individuals, but also raise questions about SOGI individuals' willingness to provide such information to government and their comfort with data privacy and governance.

This paper investigates whether GBM in NZ would feel comfortable having their sexual orientation recorded confidentially in official health databases. We draw on data from

a national community-based and online survey and identify sociodemographic and behavioural factors associated with comfort.

Methods

Surveys and recruitment

We analysed data from the 2014 round of the Gay Auckland Periodic Sex Survey (GAPSS) and Gay Men's Online Sex Survey (GOSS). This is a programme of repeat cross-sectional surveys conducted in gay community settings (fair day, bars, saunas) in Auckland and online dating sites across NZ. Starting in 2002 with rounds every 2–3 years, the programme is modelled on second generation HIV behavioural surveillance guidelines from UNAIDS and the World Health Organization.^{20,21} Eligible participants were aged 16 years or older, identified as 'male', had been sexually active with another 'male' in the previous 5 years and were able to read and understand English. Participation is voluntary and anonymous. Surveys take between 5 and 12 min and are self-completed. Ethics approval was received from the University of Auckland Human Participant Ethics Committee (Ref. 010738). A full description of the study is published elsewhere.²⁰

Questionnaire

A new item was added to the 2014 survey round to examine participant's comfort having their sexual orientation recorded. When developing the questionnaire, no exemplar questions were found in the international literature. The research team therefore developed an original item: 'Would you be comfortable for your sexuality to be recorded in official health databases, so long as it was confidential?' (hereafter the 'comfort item'). Possible responses were: 'Yes', 'No' or 'Not sure'.

Data analysis

We compared responses to the comfort item across the offline GAPSS and online GOSS surveys separately to examine non-response. Next, we combined the two surveys and examined associations with sociodemographic and behavioural variables considered to have a potential impact on comfort (coded into a binary 'Yes' vs 'No/Not sure') through bivariate analyses. Variables for the bivariate analyses included: age, ethnicity, sexual identity, highest qualification attained, survey recruitment method (offline vs online), HIV status at last test, perceived GP awareness of participant's sexual orientation, number of male sexual partners in the previous 6 months, and any reported unprotected (condomless) anal sex with casual male partners in the previous 6 months. Finally, we created a logistic regression model to identify independent predictors of comfort. Age and the method by which participants were recruited into the survey

were directly included as a potential predictor (age) or confounding (recruitment) variable in the model. Other variables included in the logistic regression model were those sociodemographic and behavioural variables found to be associated with reporting comfort in the bivariate analyses or with a *P*-value equal to or less than 0.01. Adjusted odds ratios (ORs) were calculated with a 95% confidence interval (CI). All statistical analyses were conducted in STATA IC version.13.1 (Stata Corporation, College Station, TX, USA).

Results

Overall, 3214 GBM participated, of whom 98.7% (*n* = 3173) completed the comfort item. Comfort with having their sexual orientation recorded in official health databases was 63.1% in the combined samples, being higher in the offline GAPSS survey than the nationwide online GOSS survey (71.8% vs 56.4%, *P* < 0.001) (Table 1).

In the bivariate analyses, comfort varied significantly by almost all sociodemographic and behavioural variables, with the exception of age (*P* = 0.422) and any reported condomless anal intercourse with casual partners (CAIC) (*P* = 0.112) (Table 2). Significantly greater levels of comfort were reported among participants who were gay identified (*P* < 0.001), did not have a tertiary qualification (*P* = 0.004), took part in GAPSS (*P* < 0.001), were HIV-negative at last test (*P* < 0.001), believe their GP was aware of their sexual orientation (*P* ≤ 0.001), and who reported 11 or more male sexual partners in the previous 6 months (*P* < 0.001). Significantly lower comfort was reported among participants who self-identified as an ethnicity 'Other' than European, Māori, Pacific or Asian (*P* = 0.004).

The majority of sociodemographic variables remained significantly associated with comfort in the logistic model (Table 2). Participants reporting an 'Other' ethnicity were less likely to be comfortable (AOR: 0.64, 95% CI: 0.43–0.96) compared to those identifying as European. Similarly, participants identifying as bisexual (AOR: 0.45, 95% CI:

0.35–0.56) or an 'Other' sexual identity (AOR: 0.58, 95% CI: 0.40–0.86), or who had a tertiary qualification (AOR: 0.67, 95% CI: 0.57–0.80), were less likely to be comfortable compared to other respondents.

Two variables altered significance after controlling for other factors: participants who were aged 27–45 years (AOR: 0.68, 95% CI: 0.55–0.83) or 46 years and older (AOR: 0.57, 95% CI: 0.45–0.72) were less comfortable, and HIV test status was not independently associated with comfort.

Of the remaining variables, participants who did not believe their GP to be aware (AOR: 0.32, 95% CI: 0.26–0.40) or who were not sure (AOR: 0.53, 95% CI: 0.42–0.67), were less likely to be comfortable. No sexual behaviours included in these analyses were found to be independently associated with comfort having sexual orientation recorded in official health databases after controlling for other factors in the model.

Discussion

To the authors' knowledge, this is the first study to explore self-reported comfort with having sexual orientation data recorded confidentially on official databases among GBM. In total, 63% of GBM participants reported comfort with having their sexual orientation recorded. Comfort was independently associated with having been recruited offline. Lower comfort was independently associated with being aged older than 26 years, identifying as an ethnicity 'other' than European, Māori, Pacific or Asian, having a bisexual or an 'other' sexual identity, holding a tertiary qualification, and believing their GP is not aware of their sexual orientation.

Discussion of findings

Greater comfort was found among participants recruited through venue-based community sampling compared to those recruited online. Online samples of GBM differ to those recruited through venue-based sampling in terms of age, levels of GBM community connection, and sexual

Table 1. Comfort with having sexuality recorded confidentially in official health databases by survey population among gay and bisexual men in Aotearoa, New Zealand.

	Combined		GAPSS (offline)		GOSS (online)		Chi square P-value
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Comfortable having sexuality recorded							< 0.001
Yes	2002	63.1	993	71.8	1009	56.4	
No	766	24.1	235	17.0	531	29.7	
Not Sure	405	12.8	155	11.2	250	14.0	
Total	3173	100.0	1383	100.0	1790	100.0	
Mi	41	(1.3)	38	(2.7)	3	(0.2)	

Mi, missing. Proportion not included as part of the total.

Table 2. Comfort with having sexuality recorded in official health databases by sociodemographic and sexual behaviour variables among gay and bisexual men in Aotearoa, New Zealand.

	N	Yes n	%	Chi-square P-value	OR	95% CI	AOR	95% CI
Sociodemographics								
Age				0.422				
16–26	1056	686	65.0		Ref.	–	Ref.	–
27–45	1263	792	62.7		0.91	0.76–1.08	0.68	0.55–0.83
46+	784	489	62.4		0.89	0.74–1.08	0.57	0.45–0.72
Mi	70							
Ethnicity				0.004				
European	2221	1408	63.4		Ref.	–	Ref.	–
Māori	307	211	68.7		1.27	0.98–1.64	1.28	0.96–1.71
Pacific	115	72	62.6		0.97	0.66–1.42	0.96	0.62–1.49
Asian	349	222	63.6		1.01	0.80–1.28	1.24	0.95–1.63
Other	125	61	48.8		0.55	0.38–0.79	0.64	0.43–0.96
Mi	56							
Sexual identity				< 0.001				
Gay/homosexual	2518	1718	68.2		Ref.	–	Ref.	–
Bisexual	499	197	39.5		0.30	0.25–0.37	0.45	0.35–0.56
Other	145	80	55.2		0.57	0.41–0.80	0.58	0.40–0.86
Mi	11							
Highest qualification				0.004				
Non-tertiary	1683	1103	65.5		Ref.	–	Ref.	–
Tertiary	1416	858	60.6		0.81	0.70–0.94	0.67	0.57–0.80
Mi	74							
Recruitment method				< 0.001				
Offline: GAPSS	1383	993	71.8		1.97	1.70–2.29	1.75	1.47–2.09
Online: GOSS	1790	1009	56.4		Ref.	–	Ref.	–
Mi	–							
HIV status at last test				< 0.001				
HIV negative	2137	1397	65.4		Ref.	–	Ref.	–
HIV positive	154	113	73.4		1.46	1.01–2.11	1.10	0.73–1.64
Never tested/Not sure	795	436	54.8		0.64	0.55–0.76	1.02	0.82–1.26
Mi	87							
GP aware of sexual orientation				< 0.001				
Yes	1596	1188	74.4		Ref.	–	Ref.	–
No	1030	476	46.2		0.30	0.25–0.35	0.32	0.26–0.40
Not sure	535	332	62.1		0.56	0.46–0.69	0.53	0.42–0.67
Mi	12							
Sexual behaviours								
Number of male sex partners < 6 months				< 0.001				

(Continued on next page)

Table 2. (Continued)

	N	Yes n	%	Chi-square P-value	OR	95% CI	AOR	95% CI
None	213	115	54.0		Ref.	–	Ref.	–
One	690	459	66.5		1.69	1.24–2.31	1.17	0.82–1.66
2–10	1651	1010	61.2		1.34	1.01–1.79	1.12	0.80–1.54
11+	558	369	66.1		1.66	1.21–2.29	1.23	0.85–1.79
Mi	61							
Any CAIC < 6 months ^A				0.112				
None	2137	1325	62.0		Ref.	–	–	–
Any	943	613	65.0		1.14	0.97–1.34	–	–
Mi	93							

OR, odds ratio;

AOR, Adjusted odds ratio. Adjusted for age, ethnicity, sexual identity, education level, site of recruitment, HIV status, GP awareness of sexual orientation, and number of male sexual partners in the previous 6 months.

CAIC, condomless anal sex with casual male partner.

Mi, missing.

^AOmitted from the logistic regression model.

behaviours.²⁰ Both age and sexual behaviours were found to be associated with comfort prior to adjustment in this study and may explain this finding (Table 2).

Self-reported ethnicity independently correlated with comfort levels. The 'Other' ethnicity category encompasses Middle Eastern, Latin American, and African communities. Distrust in health care institutions has been observed in Latin and African Americans, stemming from historical and current institutional racism prevalent in Western establishments.^{22,23} Despite documented health inequities, racism, and discrimination against Māori and Pacific populations in NZ, these factors did not reduce comfort levels in this study.^{24,25} Consequently, alternative explanations need consideration. Similarly, the survey identified a connection between ethnicity and disclosure of sexual orientation among GBM, indicating that Asian GBM were less likely to share their sexual orientation with health care providers.¹⁹ However, in this study, an association with comfort was not identified among Asian GBM.

Comfort with having sexual orientation recorded can be regarded as a barrier to disclosure of sexual orientation in health care.²⁶ In the combined study population, comfort of having sexual orientation recorded (63%) and perception that their GP was aware of their sexual orientation (51%) differ.¹⁹ This indicates additional barriers to disclosure in practice, which have not been measured in this study. Alternatively, it suggests that more GBM may be comfortable disclosing their sexuality than have disclosed, given safe and respectful opportunities to do so. Perceived self-efficacy or willingness to disclose sexual orientation to health care providers could be explored in future research.

Comparison to other studies

The authors could find few published quantitative studies exploring comfort or acceptance of recording sexual orientation in official data. Therefore, exploration of disclosure of sexual orientation in similar contexts will be used for comparison. In 2004, Henrickson *et al.* asked LGBTIQ+ survey participants if they would be willing to provide their sexual identity in the NZ Census, of which 86.8% reported they would.²⁷ A decade later, comfort with having sexuality recorded among GBM GAPSS and GOSS participants (63%), indicating that comfort or willingness to disclose sexuality data are potentially context or instrument specific.

Among a sample of patients attending health care settings in the USA, Cahill and Makadon found the majority of participants (83%) would answer a question on sexual orientation upon registration with a new health care centre.²⁸ Willingness was significantly greater among non-heterosexual participants ($P = 0.007$) and no significant differences were found by ethnicity, age, or recruitment site.

A 2017 study by Haider *et al.* investigated the difference in acceptability of disclosure in USA emergency health care settings, between a random sample of the population (both heterosexual and LGBTIQ+) and a panel of health care providers.²⁹ Patients identifying as bisexual had increased odds of refusing to provide sexual orientation compared with heterosexual patients after adjustment (AOR: 2.40; 95% CI: 1.26–4.56). This finding supports the association found in this analysis that those reporting a bisexual identity and those reporting an 'Other' sexual identity were less likely than those identifying as gay/homosexual to report comfort.

Disclosure rates among GBM ranged from 16 to 90%,^{30,31} with a median value of 61% and noticeable variation by

country of study in the 2018 systematic review of the literature of disclosure to health care providers among GBM, conducted by Qiao *et al.*³² Factors associated with disclosure included: sociodemographic factors (age, ethnicity, socioeconomic status), sexual identity, and sexual behaviours, as well as health care provider-related factors (being known as 'gay-friendly', patient trust, and communication).³² The average result for disclosure and associated factors were similar to those found with levels of comfort in this study.

Implications and future research

Close to two out of three GBM participants (63%) were comfortable with their sexual orientation being recorded in official databases. These findings contribute to the literature countering concerns about GBM, LGBTIQ+ individuals, and heterosexual populations hesitating to participate in sexual orientation data collection.³³ However, considering a history of ongoing discrimination against LGBTIQ+ communities globally and in NZ by government entities,³⁴ some individuals remain cautious about sharing data that could be used against them. While SOGI data collection can help address health disparities for GBM and other LGBTIQ+ groups, the potential harms must also be acknowledged. For instance, the 2021 Identify Survey in NZ revealed that 10% of young LGBTIQ+ respondents (aged 14–26) experienced unfair treatment due to their identity.³⁵

The creation and use of standardised measures of SOGI are needed as well as consensus as to where it is meaningful for these to be collected and analysed. Examples of these measures exist globally; the USA, England, Australia and NZ have each published a measure, and examples from other countries may also exist.^{13,36,37} However, these measures are not without their limitations due to the overlap between gender, sex, attraction, and identity, intersectionality especially non-Western conceptualisations of sexuality and gender, and how they will be reported to and used by decision makers.³⁸ As with the collection of ethnicity data, we know that measurement of SOGI alone is not enough to drive health equity outcomes for minority populations.

Strengths and limitations

The large and diverse sample of GBM recruited through the GAPSS and GOSS behavioural surveillance programme permits between group analysis within the GBM sample. The analyses sought to identify differences within the GBM population through sociodemographic and behavioural factors associated with comfort, allowing future research to explore and build on these findings.

The analyses were limited to variables measured in relation to HIV risk. The survey was not designed to identify factors associated with comfort with having sexual orientation recorded in official databases. Therefore, other factors that were not recorded may have a greater association, such as trust in government or medical institutions, attitudes

towards privacy, experience of homophobia or discrimination, or acceptability under different scenarios such as reasons for collection.

The question consisted of multiple concepts, including disclosure, sexual orientation, acceptability, privacy, and trust in official institutions. When asked about 'comfort' with having data recorded, the question did not differentiate between comfort with disclosure of sexuality in an 'official' setting and comfort with having sexual orientation recorded. However, the question did specify 'confidentiality', removing a potential barrier due to concerns with privacy.

Conclusion

In this study, the majority of GBM participants reported comfort with having their sexual orientation recorded on official databases with comfort independently associated with a range of sociodemographic variables, indicating that comfort differs within the GBM population and therefore some groups will be disproportionately underrepresented in data collection efforts. Future research should repeat this measure and explore barriers to comfort under different health care settings or scenarios.

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Author affiliations

^ADepartment of General Practice & Primary Health Care, School of Population Health, School of Population Health, University of Auckland, New Zealand.

^BDepartment of Social & Community Health, School of Population Health, University of Auckland, Auckland, New Zealand.