

Understanding associations between sexual identity change and the mental health of lesbian, gay, and bisexual adults in the United Kingdom through longitudinal survey

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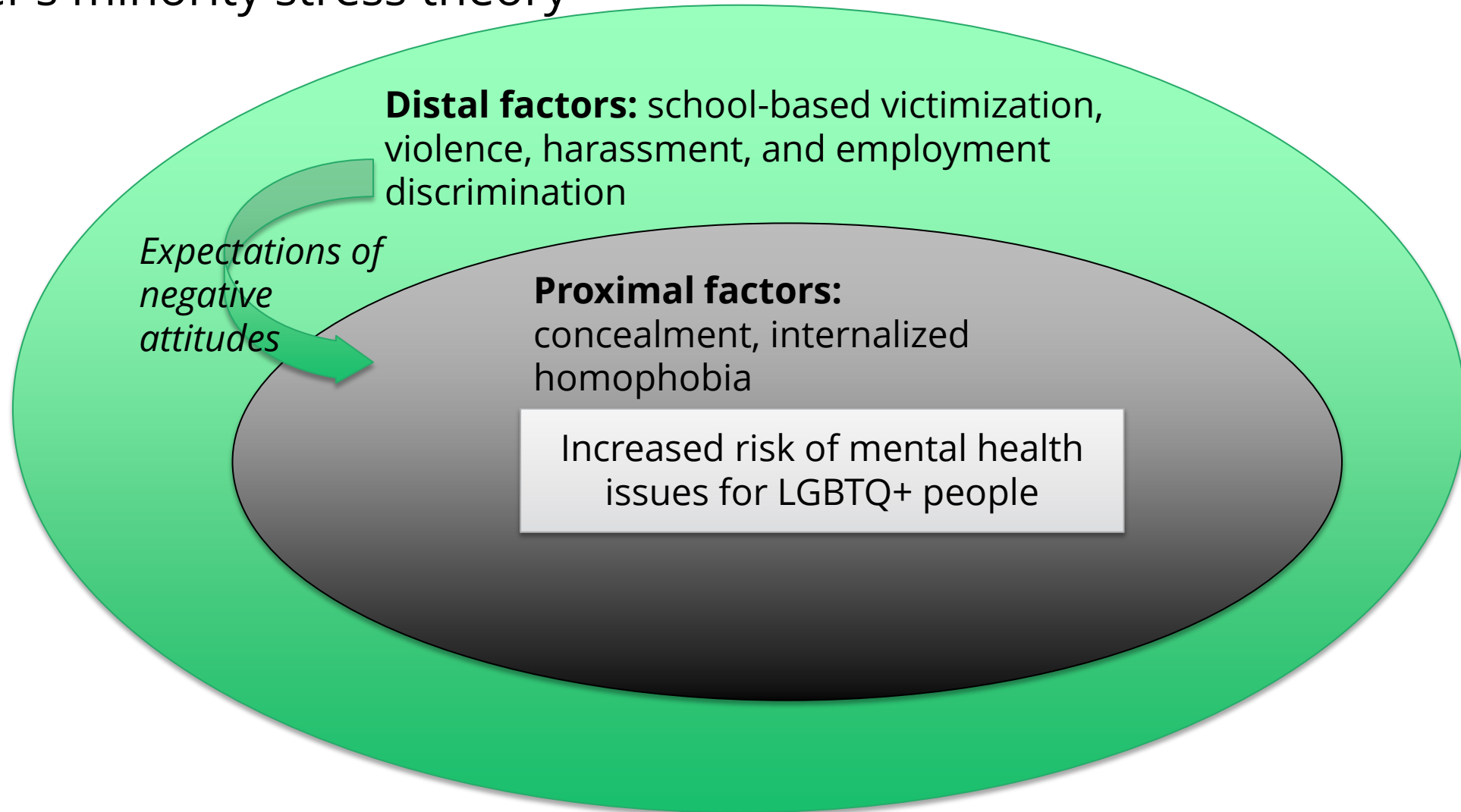
Why?



- Increased risk of depression, anxiety, substance misuse, and suicidal behaviour among LGB people¹⁻³
 - Differential mental health outcomes, largest disparities for bisexual women^{2,4-6}
- Much of the evidence to date takes sexual identity as a stable category
- Growing evidence of change in sexual identity across the life course⁷⁻⁸
- Understanding Society's panel design allows for a measure of sexual identity change

Theoretical Background: Minority Stress

- Meyer's minority stress theory⁹⁻¹⁰



Theoretical Background: Minority stress for those who change sexual identity



Better mental health:

- Fewer experiences of discrimination (towards straight)⁹
- Incorporation of LGB identity into larger sense of self (towards LGB)⁹

Worse mental health:

- Loss of social support from previous identities (any direction)⁸
 - More experiences of discrimination (towards LGB)⁹
 - Concealment (towards straight)⁹

Theoretical Background: Sexual Identity



- Sexuality¹¹⁻¹²:



- Definition shapes estimated size of LGB population¹³
- Study focuses on sexual identity:
 - Focus on behaviour overlooks social/cultural dimensions of sexuality and sexual minority people's self-determination¹⁴
 - Understanding Society also only collects data on this area

Theoretical Background: Sexual Fluidity



- Reject the idea of sexuality as a “choice”
- Sexual fluidity: “a capacity for situation-dependent flexibility in sexual responsiveness” (Diamond, 2016, p. 249)¹⁵
- Another component of sexuality that works alongside sexual orientation¹⁶
- May or may not manifest in changes in identity¹⁶
- Can only measure sexual identity changes with available data, but still allow for understanding how these identity shifts associate with mental health outcomes

Research Gap



- Few studies in this area
- One systematic review found those with **non-heterosexual identities** and **shifts towards non-heterosexuality** had higher likelihood of depression symptoms, suicidality, and substance use⁸
- Urwin et al. (2021) conducted study with Understanding Society data that looked at how different measures of sexual identity changed associations with life satisfaction, mental health, and physical health across the life span¹⁷
 - Changing sexual identity associated with worse outcomes in all three areas compared to consistently-straight peers
 - Heterosexual to LGB, vice versa, and between LGB individuals had worse mental health outcomes

Research Aims



- This study builds on Urwin et al. (2021) by:
 - Incorporating additional sexual identity data from young adults (ages 16-21) collected more frequently
 - Including new data on specific mental health conditions from Wave 13 of Understanding Society
- Aim: Understand the associations between **sexual identity change from 2011 (Wave 1) to 2023 (Wave 13)** and current **psychological wellbeing and mental health diagnoses self-reported between 2021-2023 (Wave 13)** in the United Kingdom.

Methods: Sample



- Participants in Wave 13 (2021-2023) of Understanding Society¹⁸
 - Aged 16 and older
 - Have complete sociodemographic characteristics for selected covariates from Wave 13 or carried forward
 - At least one sexual identity observation from previous or current wave
 - Outcome data in Wave 13: GHQ-12 or self-reported mental health diagnoses
- **GHQ-12 sample: 24,769 participants**
- **Mental health conditions sample: 25,141 participants**

Methods: Sexual Identity Change Variable



- All adult participants asked about sexual identity in Waves 3 and 9¹⁹
- Young adult participants also asked in Waves 5, 7, 11, and 13¹⁹
- Measure accounts for direction of change or multiple changes (only possible for young adults)
- Only one observation counted in "No change" (to include Immigrant and Ethnic Minority Boost sample from Wave 6 and 16-year-olds from most recent wave)
- Prefer not to say included to account for potential concealment

Sexual Identity Change Measure

No change: Heterosexual or Straight

No change: Lesbian or Gay

No change: Bisexual

No change: Other

No change: Prefer not to say

Straight to LGB/other

Straight to Prefer not to say

Between LGB/other

LGB/other to Straight

LGB/other to Prefer not to say

Prefer not to say to LGB/other

Prefer not to say to Straight

Multiple Changes

Methods: Outcome Measures



- Psychological Distress: GHQ-12 (using Likert scale from 0-36)²⁰
- Self-reported Mental Health Conditions²¹:

Question: Has a doctor or other health professional ever told you that you have any of these conditions?

Conditions:

A phobia

Panic attacks

Post-traumatic stress disorder

Generalised anxiety disorder

Attention deficit hyperactivity disorder (ADHD) or Attention deficit disorder (ADD)

Bipolar disorder (or 'manic depression')

Depression

Post-natal depression

Dementia (including Alzheimer's)

An eating disorder

Nervous breakdown

A personality disorder

Psychosis or schizophrenia

Obsessive compulsive disorder (OCD)

Seasonal affective disorder

Alcohol or drug dependence

Any other anxiety disorder

Any other emotional, nervous or psychiatric problem or condition

None of these

Methods: Other Covariates



- Age, gender, race/ethnicity, education, partnership status, immigration, urbanity, and government office region
- Did NOT include income or employment status because could lie on casual pathway to worse mental health for LGB individuals²²
- Gender response options only include male/female and is collected from one household member (i.e. not individually reported)²³
 - Difficult to identify transgender participants
 - <10 participants whose gender response changed over time

Methods: Statistical Analysis



- Survey-weighted linear regressions for GHQ-12 score and survey-weighted logistic regressions for self-reported mental health conditions²⁴
- Generated estimates for change in GHQ-12 and adjusted odds ratios (AORs) for mental health conditions associated with sexual identity change groups
- Rao-Scott working likelihood ratio test (LRT) for overall p-value to account for complex survey design²⁵⁻²⁶
- Benjamini-Hochberg correction²⁷
 - False Discovery Rate controlled to 5%
 - Applied to all p-values (Rao-Scott and individual sexual identity change levels)
- Explored gender effect modification, but confidence intervals mostly overlapping

Results: Descriptive



- Smallest group for any analysis was 37 (LGB to Prefer not to say)
- Looking at weighted proportions:
 - **~10% of the population** reported an identity other than straight at some point in the study period
 - A large portion (~20-25%) of No Change (Other), No Change (Prefer not to say), and LGB to Prefer not to say groups were foreign-born compared to 9% of overall population
 - No change (Bisexual), No change (Other), Straight to LGB, Between LGB, LGB to straight, and Multiple changes groups all had <40% men, while No change (Lesbian or gay) and LGB to Prefer not to say had ~60% men
 - Except for No change (Lesbian or gay), a smaller percentage of the non-reference groups reported white ethnicity (75.6-89.5%) than the No Change (Straight) reference (89.8%)

Results

	GHQ-12	Any Mental Health Condition	Depression	PTSD	Panic Attacks	Other Anxiety
Rao-Scott P-Value	0.004**	<.001***	<.001***	0.222	<.001***	<.001***
Sexual Identity Change Group	Estimate	AOR	AOR	AOR	AOR	AOR
No change (Straight)	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
No change (Lesbian or gay)	0.83 (-0.41 - 2.06)	1.90 (1.26 - 2.88)**	2.48 (1.60 - 3.84)***	1.64 (0.49 - 5.53)	2.07 (1.11 - 3.87)*	1.69 (0.96 - 2.99)
No change (Bisexual)	1.82 (0.81 - 2.83)**	2.91 (2.07 - 4.09)***	2.95 (2.06 - 4.22)***	2.93 (1.50 - 5.70)**	3.30 (2.23 - 4.89)***	3.08 (2.06 - 4.60)***
No change (Other)	1.82 (-0.32 - 3.96)	1.64 (0.83 - 3.23)	1.88 (0.89 - 3.97)	1.08 (0.22 - 5.22)	2.78 (1.12 - 6.89)	4.97 (2.43 - 10.16)***
No change (Prefer not to say)	0.65 (-0.30 - 1.59)	1.64 (1.16 - 2.31)*	1.73 (1.18 - 2.52)*	1.60 (0.70 - 3.67)	1.89 (1.13 - 3.14)*	1.54 (0.85 - 2.80)
Straight to LGB	1.61 (0.48 - 2.74)*	2.04 (1.46 - 2.85)***	2.15 (1.50 - 3.08)***	2.21 (1.16 - 4.22)*	2.25 (1.38 - 3.64)**	1.91 (1.20 - 3.02)*
Straight to Prefer not to say	-0.21 (-1.18 - 0.75)	1.20 (0.80 - 1.82)	1.21 (0.75 - 1.93)	2.12 (0.82 - 5.49)	0.68 (0.35 - 1.31)	1.50 (0.80 - 2.83)
Between LGB	2.66 (0.07 - 5.25)	3.71 (1.99 - 6.93)***	3.76 (1.98 - 7.15)***	3.14 (0.96 - 10.22)	1.32 (0.39 - 4.44)	2.90 (1.15 - 7.30)
LGB to Straight	1.65 (0.40 - 2.91)*	1.99 (1.34 - 2.96)**	2.25 (1.48 - 3.42)***	2.28 (0.65 - 7.93)	1.59 (0.72 - 3.52)	0.63 (0.22 - 1.77)
LGB to Prefer not to say	4.70 (-0.01 - 9.42)	1.43 (0.62 - 3.28)	1.09 (0.41 - 2.91)	2.61 (0.34 - 20.08)	0.97 (0.19 - 4.87)	1.42 (0.30 - 6.79)
Prefer not to say to LGB	2.58 (0.43 - 4.73)*	2.64 (1.30 - 5.35)*	2.58 (1.16 - 5.71)*	1.80 (0.36 - 9.03)	4.27 (1.79 - 10.20)**	3.65 (1.36 - 9.80)*
Prefer not to say to Straight	0.21 (-0.61 - 1.03)	0.72 (0.46 - 1.13)	0.70 (0.42 - 1.16)	0.64 (0.10 - 4.11)	1.19 (0.61 - 2.30)	0.87 (0.41 - 1.81)
Multiple changes	1.19 (-0.77 - 3.14)	2.50 (1.34 - 4.66)*	2.45 (1.27 - 4.72)*	0.61 (0.12 - 3.02)	0.80 (0.33 - 1.93)	2.20 (1.00 - 4.84)



- Align with existing literature showing worse mental health outcomes for LGB groups, and in particular, bisexual individuals²⁻⁶
- New insights:
 - Changing from straight or Prefer not to say to LGB also showed consistent disparities across models
 - Those who changed from LGB to straight had higher GHQ-12 scores and odds of a mental health condition and depression specifically than their peers who consistently reported a straight identity
- Points to the role of community support disruption as a minority stressor,⁸ as well as concealment and other proximal stressors like expectations of rejection for those who shift from LGB to straight³

Policy and Practice Implications



- Important to take into account nuances like sexual identity change when responding to mental health needs of LGB individuals
- Therapy models that centre on minority stress process have been shown effective²⁸⁻²⁹:
 - Could be expanded to respond to stressors of those who change reporting of sexual identity across the life course
 - Could take into account disparities for particular conditions
- Researchers should collect sexual identity data more frequently in longitudinal surveys

Directions for Future Research



- Explore why participants answer “Prefer not to say” or “Other”
- Better data collection on gender, including in self-completion settings and with trans-inclusive response options
- Data linkage with medical records (rather than self-report data)
- More frequent data collection on sexual identity
- Explore differences by race/ethnicity, including through qualitative research

Thank you!

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