

# Mental health among UK inner city non-heterosexuals: the role of risk factors, protective factors and place – CORRIGENDUM

C. Woodhead, B. Gazard, M. Hotopf, Q. Rahman, K. A. Rimes and S. L. Hatch

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In the above-mentioned article of Woodhead *et al.* (2016) there are errors in the tables. The correct versions of the tables and details of the corrections are given below. The author apologises for these errors.

Due to a survey weight calculation correction to the South East London Community Health study (SELCoH) data, all weighted prevalence's, odds ratios and confidence intervals have been amended. The following describes the main relevant updated univariate data in Tables 1–3. Rather than 5.4, 6.6% identified as non-heterosexual (4.8% homosexual, 1.4% bi-sexual and 0.5% 'other'). Marital status ( $p=0.054$ ); reporting having ever been discouraged from continuing education ( $p=0.180$ ); that people ever acted as if they were afraid ( $p=0.168$ ) and not applying for work or training for fear of discrimination ( $p=0.074$ ) was no longer associated with sexual orientation.

Associations with anticipated discrimination and everyday discrimination overall remained highly significant and were input into Model C in place of individual items, in analyses described in Table 4. The pattern of effect sizes in

**Table 1.** Demographic and socio-economic characteristics by sexual orientation. Numbers (n), weighted percentages (%) and p-values are shown

	Heterosexual (n = 978)		Non-heterosexual (n = 63)		p
	n	%	n	%	
Gender					0.001
Female	590	54.3	22	32.2	
Male	388	45.7	41	67.9	
Age (years)					0.438
16–24	122	17.2	11	20.8	
25–34	221	26.3	15	27.4	
35–44	191	19.1	12	18.0	
45–54	183	16.3	16	22.1	
55+	261	21.1	9	11.8	
Marital status					0.054
Married/cohabiting	539	52.4	24	36.0	
Single	243	27.6	22	37.0	
In a relationship not living with/other	113	13.3	13	21.9	
Divorced/widowed/separated	83	6.8	4	5.1	
Education					0.386
None/below GCSE	116	10.6	2	3.6	
Up to GCSE	139	13.9	11	16.3	
A level	244	26.6	18	29.6	
Higher degree	478	48.9	32	50.5	

*Continued*

**Table 1.** *Continued*

	Heterosexual ( <i>n</i> = 978)		Non-heterosexual ( <i>n</i> = 63)		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Binary ethnicity					0.103
White	629	62.6	47	73.3	
Non-white	348	37.4	16	26.8	
Religion					0.003
None/agnostic/atheist	359	38.7	37	58.6	
Any other	619	61.3	21	41.4	
Employment status					0.832
Paid employment	594	60.3	38	58.9	
Unemployed/economically inactive	383	39.7	25	41.1	
Housing tenure					0.391
Own/shared ownership/mortgage	370	36.9	21	32.4	
Renting	540	58.2	35	58.8	
Rent-free/other	38	4.9	5	8.9	
Monthly income					0.606
£0–420	193	21.4	11	18.9	
£421–928	201	20.2	9	12.8	
£929–1592	154	16.1	11	17.2	
£1593–2416	156	16.3	12	19.1	
£2417+	254	26.0	20	32.0	

Numbers may not add up due to missing data.

**Table 2.** *Lifetime exposure to discrimination, lifetime and child trauma by sexual orientation. Numbers (n), weighted percentages (%) and p-values are shown*

	Heterosexual ( <i>n</i> = 978)		Non-heterosexual ( <i>n</i> = 63)		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Any experience of major discrimination	473	47.3	32	48.1	0.833
Ever experienced:					
Fired unfairly	103	10.7	7	10.1	0.872
Not hired unfairly	128	13.2	8	12.5	0.871
Denied promotion unfairly	97	9.7	7	11.5	0.657
Unfair treatment by police	141	16.9	9	14.1	0.558
Unfair treatment by court system	51	5.4	3	5.1	0.921
Discouraged from continuing education	108	11.6	12	17.2	0.180
Prevented from moving into a neighbourhood	17	1.8	1	1.2	0.671
Neighbours made life difficult	84	8.7	5	8.6	0.487
Unfairly treated by bank	43	4.5	1	1.8	0.346
Received worse service than others	78	7.6	6	8.3	0.831
Unfairly treated in medical care	60	5.8	4	5.5	0.902
Unfairly treated on public transport	80	8.8	7	10.4	0.638
Everyday discrimination (median or more)	530	56.6	47	75.8	0.003
Experienced fairly often/often:					
Treated with less courtesy	46	5.1	4	7.3	0.994
Treated with less respect	38	4.3	4	8.2	0.206
Received poorer service	23	2.5	1	1.7	0.680

*Continued*

Table 2. Continued

	Heterosexual ( <i>n</i> = 978)		Non-heterosexual ( <i>n</i> = 63)		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
People act as if not smart	54	6.2	4	6.1	0.964
People act as if afraid of me	16	1.8	3	4.3	0.168
People act as if I am dishonest	14	1.8	2	4.0	0.271
People act as if better than me	78	8.9	7	12.5	0.370
Called names or insulted	21	2.4	2	4.4	0.385
Threatened or harassed	13	1.3	1	2.4	0.536
Followed in stores	31	3.9	1	1.7	0.382
Any experience of anticipated discrimination	262	27.7	28	45.7	0.004
Ever experienced:					
Not applied for work or training	130	13.5	14	21.6	0.074
Not contacted health services	39	3.8	4	6.0	0.353
Not visited a certain area	167	18.1	18	30.6	0.024
Any experience of lifetime trauma	603	65.2	44	70.9	0.400
Ever experienced:					
Witnessed violence	376	42.0	28	45.1	0.650
Victim of a serious crime	340	36.9	31	50.9	0.032
Injured with weapon	82	9.8	7	10.7	0.826
Physical or sexual abuse	314	34.8	24	40.3	0.397
Any experience of childhood trauma	252	26.9	20	31.0	0.487
Ever experienced:					
Physical abuse	234	25.3	18	27.7	0.675
Sexual abuse	42	3.8	9	12.7	<0.001

Table 3. Mechanisms used some/most of the time to cope with unfair treatment by sexual orientation. Numbers (*n*), weighted percentages (%) and *p*-values are shown

	Coping with unfair treatment				
	Heterosexual ( <i>n</i> = 978)		Non-heterosexual ( <i>n</i> = 63)		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Exercise	261	27.8	21	31.9	0.505
Eat sweets/fatty foods	246	25.1	19	32.5	0.177
Drink alcohol	231	24.2	22	35.4	0.052
Smoke cigarettes	159	16.8	16	26.5	0.053
Health-related coping (median/above)	572	59.3	44	72.0	0.047
Talking about problem	700	71.6	44	69.9	0.767
Pray	280	27.6	10	15.0	0.030
Avoid the situation	590	60.2	44	67.9	0.227
Do something about it	726	74.3	50	78.5	0.508
Accept situation	572	57.9	36	55.1	0.671

each adjustment model (Table 4) remains similar overall to those reported. For each outcome, adjustments for everyday and anticipated discrimination overall had the largest (though small to moderate) impact on effect sizes (Model C). Sexual orientation remained significantly associated with symptoms of common mental disorder (CMD) in each model, with effect sizes ranging from 2.97 (OR 1.69–5.24,  $p < 0.001$ ) in Model A to 2.46 (OR 1.34–

**Table 4.** Adjusted associations between sexual orientation and mental health, substance use and well-being. Odd ratios (OR) and 95% confidence intervals (CI) are shown

	n (%)	Model A	Model B	Model C	Model D
Well-being (coefficient) <sup>a</sup>					
H	25.2 (24.9–25.5)	1.00	1.00	1.00	1.00
NH	24.2 (23.0–25.4)	−1.22 (−2.41–0.04)*	−0.93 (−2.10–0.25)	−0.84 (−1.98–0.29)	−1.04 (−2.20–0.12)
Common mental disorder <sup>b</sup>					
H	204 (20.7)	1.00	1.00	1.00	1.00
NH	24 (39.9)	2.97 (1.69–5.24)***	2.60 (1.34–5.06)**	2.46 (1.34–4.54)**	2.57 (1.41–4.68)**
Suicidal ideation					
H	191 (19.9)	1.00	1.00	1.00	1.00
NH	31 (51.2)	4.03 (2.34–6.97)***	4.26 (2.38–7.64)***	3.52 (2.03–6.09)***	3.71 (2.07–6.68)***
Harmful alcohol use <sup>c</sup>					
H	35 (3.7)	1.00	1.00	1.00	1.00
NH	10 (15.9)	3.00 (1.33–6.77)***	3.41 (1.42–8.21)***	2.85 (1.23–6.58)*	2.37 (1.00–5.64)
Past year drug use <sup>d</sup>					
H	167 (20.0)	1.00	1.00	1.00	1.00
NH	32 (51.6)	3.32 (1.71–6.46)***	3.25 (1.67–6.30)***	2.83 (1.51–5.31)**	3.41 (1.67–6.94)***

H, heterosexual; NH, non-heterosexual

Model A adjusted for age (continuous), gender, educational attainment, ethnicity, marital status. Model B as model A, additionally adjusted for major, everyday and anticipated discrimination and childhood and lifetime trauma overall. Model C as model A, additionally adjusted for everyday discrimination and any experience of anticipated discrimination. Model D as model A, additionally adjusted for childhood sexual abuse and whether ever been a victim of a serious crime.

<sup>a</sup>Shortened Warwick-Edinburgh Mental Well-being Scale (continuous).

<sup>b</sup>Revised Clinical Interview Schedule, cut-off 12+.

<sup>c</sup>Alcohol Use Disorders Identification Test, cut-off 16+.

<sup>d</sup>Includes: cannabis, cocaine, metamphetamine, Khat, amphetamines, crack, tranquilisers, heroin, ecstasy and LSD.

\* $p \leq 0.05$ , \*\* $p \leq .01$ , \*\*\* $p \leq 0.001$ .

**Table 5.** Comparison of substance misuse and mental health outcomes between South East London Community Health survey (SELCoH) and Adult Psychiatric Morbidity Survey 2007 (APMS) England/London samples by sexuality. Numbers (n), weighted percentages (%), odds ratios (OR) and 95% confidence intervals (CI) are shown.

	Heterosexual		Non-heterosexual	
	n (%)	OR (95% CI)*	n (%)	OR (95% CI)†
Common mental disorder <sup>a</sup>				
SELCoH	204 (20.7)	1.69 (1.37–2.09)***	24 (39.9)	3.30 (1.83–5.95)***
APMS	1039 (14.4)	1.00	128 (22.7)	1.00
Suicidal ideation				
SELCoH	191 (19.9)	1.49 (1.21–1.85)***	31 (51.2)	2.62 (1.46–4.71)***
APMS	1109 (15.6)	1.00	154 (31.7)	1.00
Harmful alcohol use <sup>b</sup>				
SELCoH	35 (3.7)	1.56 (1.03–2.37)*	10 (15.9)	1.61 (0.69–3.75)
APMS	200 (3.3)	1.00	41 (10.0)	1.00
Past year drug use <sup>c</sup>				
SELCoH	165 (19.8)	2.69 (2.06–3.51)***	32 (51.6)	3.86 (1.97–7.57)***
APMS	430 (8.2)	1.00	82 (19.3)	1.00

\*Adjusted model with combined comparable data from both studies; including gender, age (continuous), binary ethnicity, binary education, binary marital status.

<sup>a</sup>Revised clinical interview schedule, cut-off 12+.

<sup>b</sup>Alcohol use disorders identification test, cut-off 16+.

<sup>c</sup>Includes: cannabis, cocaine, amphetamines, crack, tranquilisers, heroin, ecstasy and LSD.

\* $p \leq 0.05$ , \*\*\* $p \leq 0.001$ .

4.54,  $p < 0.01$ ) in Model C. lifetime suicidal ideation remained highly significantly associated with sexual orientation in each model, with effect sizes ranging from 4.26 (OR 2.38–7.64,  $p < 0.001$ ) in Model B to 3.52 (OR 2.03–6.09,  $p < 0.001$ ) in Model C. similarly, past year drug use remained highly significantly associated with sexual orientation in each model, with effect sizes ranging from 3.41 (OR 1.67–6.94,  $p < 0.001$ ) in Model D to 2.83 (OR 1.51–5.31,  $p < 0.001$ ) in Model C. in contrast to reported data, harmful alcohol use was no longer significantly associated with sexual orientation following adjustments for childhood sexual abuse and whether ever been a victim of a serious crime (2.37, OR 1.00–5.64). Comparisons with national data (Table 5) indicated the same pattern of findings, with the exception that except SELCOH non-heterosexuals were no longer more likely than the national sample of non-heterosexuals to be harmful alcohol drinkers.

## Reference

Woodhead C, Gazard B, Hotopf M, Rahman Q, Rimes KA, Hatch SL (2016). Mental health among UK inner city non-heterosexuals: the role of risk factors, protective factors and place. *Epidemiology and Psychiatric Sciences*, available on CJO2015. doi: 10.1017/S2045796015000645.