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# Looking beyond sexualized drug use: exploring the relationship between substance use and subjective well-being among LGBTQ+ people in the UK

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## ABSTRACT

**Background:** LGBTQ+ community experience higher levels of substance use and poorer well-being than the general population.

**Methods:** Variations in well-being by form of substance use (adjusting for confounders) were examined using data from a national UK survey of LGBTQ+ adults. Participants were asked about past year substance use to alter appearance [ADU], have sex better [SDU], help work or study [WSDU], for the feelings or experience caused [FEDU], nicotine use, alcohol (AUDIT-C) use, and well-being (ONS-5).

**Results:** Participants mean age was 33.5 years, 47% identified as bisexual ( $n = 561$ , 88% cis-gendered); 30% reported FEDU, 8.6% SDU, 7.1% WSDU, 3.0% ADU, 33% nicotine use (16% smoked, 26% vaped), and 79% alcohol use. FEDU was associated with anxiety ( $p = 0.028$ ), ADU with anxiety ( $p = 0.015$ ) and poorer subjective health ( $p = 0.031$ ), and SDU with feeling life was more worthwhile ( $p = 0.011$ ). WSDU was not associated with the well-being measures. Risky alcohol use was associated with anxiety ( $p = 0.042$ ), and nicotine use with feeling less worthwhile ( $p = 0.046$ ), less happy ( $p = 0.002$ ), anxiety ( $p = 0.011$ ), and poorer subjective health ( $p = 0.018$ ).

**Conclusions:** Responses to substance use in LGBTQ+ community should be situated in better understanding and addressing the more common forms of substance use and anxiety.

## ARTICLE HISTORY

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## KEYWORDS

Substance use; nicotine; alcohol; sexual orientation; gender identity; subjective well-being



## Introduction

Substance use among LGBTQ+ individuals is a global public health concern, as the prevalence is often higher than in the rest of the general population (Australian Institute of Health and Welfare, 2025; Bränström & Pachankis, 2018; Demant et al., 2017; Jackson et al., 2016; Rosner et al., 2021). In England, the Adult Psychiatric Morbidity Survey found that whilst 10.5% of the heterosexual participants reported illicit drug use, this was more common among the bisexual (37%) and lesbian and gay (25%) participants (Pitman et al., 2021). This study also found potentially hazardous alcohol use (AUDIT score 8+) was higher among lesbian, gay, and bisexual participants. LGBTQ+ people also report higher levels of nicotine use; in the UK, 22% of gay or lesbian people were current smokers compared to 15.5% of heterosexuals in 2018 (Office for National Statistics, 2020). Studies in other high-income countries indicate similar differences in the extent of substance use, for example in the United States of America (Freitag et al., 2021; Krasnova et al., 2021). These differences are probably related to psychosocial challenges LGBTQ+ communities face (Borgogna et al., 2019; Frost et al., 2015; Kelleher, 2009; King et al., 2008) due to stigma, prejudice and discrimination experienced (Katz-Wise & Hyde, 2012; Pachankis & Bränström, 2018). Stigma, prejudice, and discrimination have been shown to negatively impact the mental wellbeing (King et al., 2008; Plöderl & Tremblay, 2015; Zeeman et al., 2018) and general

health (Bränström & Pachankis, 2018; Jackson et al., 2016; Simoni et al., 2017; Tran et al., 2023) of LGBTQ+ people.

There is an extensive body of research on substance use among LGBTQ+ communities; however, in recent decades research has mostly focused on sexualized drug use (SDU), particularly “chemsex” among gay and bisexual men (Coronado-Muñoz et al., 2024; Hibbert et al., 2019; Stevens et al., 2020; Yang et al., 2023). Furthermore, this research has mainly been concerned with the extent of SDU, and associations with harms, such as, sexually transmitted infections and non-consensual sex (Drückler et al., 2021; Frankis et al., 2018; Stevens et al., 2020; Troiano et al., 2018). Little research in the UK or globally has focused on the positive aspects (Moyle et al., 2020; Pienaar et al., 2020) and the drivers of use (Mundy et al., 2025). The use of illicit drugs for other functions, and the use of both alcohol and nicotine, are more common than SDU among LGBTQ+ communities (Boyle et al., 2020).

Drugs can be used for a range of functions, including ones related to altering feelings and psychological experiences (e.g., to change mood or feelings); altering appearance (e.g., to help build muscle or lose weight); and to help with work and study (e.g., to help with concentration, or to improve creativity) (Evans-Brown et al., 2012; McVeigh et al., 2012; van de Ven et al., 2019). People may use drugs for a range of functional

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reasons, and some drugs can be used for several functions, e.g., amphetamines can be used as a psychostimulant or to lose weight (Zahnow et al., 2020). Yet there has been little research with LGBTQ+ communities that has looked at drug use for functions other than SDU. There is, for example, a small body of literature that has looked at use of drugs to enhance image and performance among LGBTQ+ communities, but much of this focused on gay and bisexual men (de Zeeuw et al., 2023; Evans-Brown et al., 2012; Griffiths et al., 2017; Halkitis et al., 2008; Hibbert et al., 2020; Ip et al., 2019; Kutscher et al., 2024), and little research with other groups. Evidence indicates that use of illicit drugs, alcohol, and nicotine among LGBTQ+ communities is, in part at least, related to stigma and discrimination (Bränström & Pachankis, 2018). Yet there has been very little research that has explored how the use of illicit drugs for different functions is related to overall mental well-being (Griffiths et al., 2017; Hibbert et al., 2020).

This exploratory study looked at substance use by focusing on a range of broad functional motivations for use. We assessed these “functions” through the use of simple questions that asked about the reasons for using illicit substances, rather than by asking about the use of actual substances – which can of course be used for a range of purposes. This approach also avoided having to ask about the use of an ever-growing list of illicit substances which can be off-putting, confusing, and time consuming for participants. This research aimed to explore the associations between measures of subjective well-being and different types of functionally motivated drug use, and alcohol and nicotine use, among LGBTQ+ individuals in the UK. Our hypothesis was that the associations between measures of subjective well-being, and the direction of these, would differ between the functional reasons for drug use, and also with the use of alcohol and nicotine. For example, it could be argued that drug use related to altering mood and feelings would generally be associated with poorer subjective well-being, with drug use related to enhancement functions having a mixture of positive and negative associations or none.

## Methodology

### Sampling and recruitment

People who identified as LGBTQ+ aged 18+ years and living in the UK were recruited into the LGBTQ+ Lives Beyond COVID survey. A total of 600 adults were recruited through a commercial survey panel provider Prolific (<https://www.prolific.com/>). Participation was offered to all eligible panel members, with participation open until the target sample size (600) was reached. The eligibility of those offered participation in the study was established through a standard screening question that Prolific asks people on registration. This asks if they identify as LGBTQ+. Only people aged 18+ years can register on the panel.

### Procedure

Potential participants were provided with a short overview of the survey on the panel site. Those interested in participation then accessed the participant information sheet, before providing

informed consent. Those providing consent were routed to the online QuestionPro platform to complete the survey.

The survey was designed to take around 8–10 minutes to complete. Participants were remunerated for taking part at the standard panel rate (approximately £2) through the survey panel provider. Once a survey was completed and the participation validated with the panel provider (using a unique pseudo-anonymous identifier), the survey data was fully anonymized and unlinked from the panel.

### Data collection tool

The survey used validated tools and standard questions. The topics covered included: demographics (e.g., age), general well-being and health (using Office for National Statistics [ONS] five questions); health behaviors; and experiences of being LGBTQ+ in the (“How comfortable do you feel being an LGBTQI+ person in the UK?” scale, 1 “Not at all comfortable” to 5 “Very comfortable”).

Participants were asked about their use of substances, with alcohol use measured using the three AUDIT screening questions. Participants use of nicotine as ascertained from two questions: “Do you smoke tobacco?” (Nonsmoker, Ex-smoker, Current light smoker [less than 10 a day], Current moderate smoker [between 10 and 19 a day], Current heavy smoker [20 or more a day], Don’t know/Prefer not to say); and “How often do you use e-cigarettes/vape?” (I don’t use e-cigarettes/vape, Less than once a month, Once a month, but less than once a week, Once a week, but less than once a day, Every day, Don’t know/Prefer not to say). Participants were not asked about the use of other specific substances, instead questions explored their use of other substances by functional motivation or reason for use. This was done using the following four questions: “In the past year, have you used drug(s) other than those required for medical reasons: a) for the feelings or experience they cause (e.g., to change your mood, or to feel good)?; b) ‘to help alter your appearance (e.g., to help build muscle or lose weight)?; c) to make having sex better (e.g., to make the sex you want to have easier or more pleasurable)?; and d) to help you work or study better (e.g., to help you concentrate or to improve creativity)?” (Yes, No).

### Ethical considerations

As some of the topics covered in the survey might cause concern for some participants, information on how to access support, if needed, was available throughout the survey and also at the end. Ethical approval was provided by LJMU Research Ethics Committee (ref:24/PHI/001)

### The participants

In total, 600 people were surveyed (mean completion time: 8 minutes 37 seconds). A small number (6) were excluded due to incomplete and/or inconsistent responses, giving a total of 594. Of these, 561 were included in this analysis, 33 were excluded as they had not answered one or more of

the four substance use questions, three AUDIT questions, or two nicotine use questions, and/or had provided incomplete data in relation to their sexual orientation and/or gender identity.

### Data analysis

Data was analyzed SPSS 29 with standard scores calculated for the validated tools (e.g., AUDIT). Descriptive analyses were then undertaken. Association between the substance use variables (four functional reasons for drug use and nicotine use coded as: yes vs. no; alcohol use coded as: no/low risk (AUDIT score  $\leq 5$ ) vs. higher risk (AUDIT score 6+) and the five measures of wellbeing (all continuous) were examined. Firstly, possible association were initially explored using t-tests, with logistic regression then used to adjust for possible demographic confounders (sexual orientation, gender identity, and age). The adjusted analyses are presented, and significance was assessed using an alpha of 0.05 (i.e.,  $p < 0.05$ ).

### Results

The characteristics of those include in this analysis are summarized in Table 1. Overall, 53% of the participants identified as cis-women, 7.5% non-binary, and 3.9% trans; their mean age was 33.5 years. Almost half (47%) identified as bisexual, a third (33%) as gay, lesbian, or homosexual, and one-fifth (20%) described their sexual orientation in another way. Almost two-fifths (38%) were cohabiting with a partner, and 88% described their ethnicity as white. Overall, two-fifths (40%) were not comfortable about being an LGBTQ+ person in the UK. The mean and median scores on the four ONS self-reported measures of subjective well-being are given in Table 1.

### Substance use

Two-thirds (67%) did not use nicotine (i.e., smoke or vape), and one-fifth (21%) did not drink alcohol with half (50%) of all participants reporting that they used alcohol at levels that indicated low risk. In the past year, 30% had used a drug for the feelings or experience it caused, 3.0% to help alter their appearance, 8.6% to make having sex better, and 7.1% to help them work or study better. Overall, 35% (198/561) reported using a drug for one or more of these functional reasons, and 14% (79/561) reported using drugs for one or more of the three enhancement functions (i.e., for appearance, sex, and/or work/study).

Only 14% (80/561) reported no substance use, and 27% (156/561) reported only low risk alcohol use. Over a quarter of participants (29%, 164) reported using both alcohol and nicotine. A third (35%, 198/561) reported using drugs for any of the four functional reasons (i.e., for feelings, appearance, sex, and/or work/study). Of these, 88% (176/198) also reported using alcohol, and 52% (102/198) also reported using nicotine, with 48% (96/198) of them reporting that they used both alcohol and nicotine.

### Associations between substance use and well-being

The associations between substance use and the ONS measures of health and well-being are shown in Table 2. Using drugs for the feelings or experience they cause was only associated with being anxious (AOR = 1.08, 95% CI 1.01–1.16). Using drugs to alter appearance was associated being anxious (AOR = 1.31, 95% CI 1.05–1.62), and poorer subjective health (AOR = 0.78, 95% CI 0.62–0.98). SDU was only associated with higher scores for life being worthwhile (AOR = 1.22, 95% CI 1.05–1.42). Using drugs to help with work or study was not associated with any of the wellbeing measures.

Higher risk alcohol use was only associated with being anxious (AOR = 1.08, 95% CI 1.00–1.16). The use of nicotine was associated with lower scores for life being worthwhile (AOR = 0.93, 95% CI 0.86–1.00), being less happiness (AOR = 0.89, 95% CI 0.82–0.96), being anxious (AOR = 1.09, 95% CI 1.02–1.17), and poorer subjective health (AOR = 0.90, 95% CI 0.82–0.98). Life satisfaction was not associated with any of the functional reasons for drug use, or the use of tobacco, and higher risk alcohol use.

### Nicotine use

As nicotine use was associated with four of the five ONS measures, its use was explored further. The five ONS well-being measures were explored by route of nicotine administration (Smoke only, Smoke & Vape, or Vape only), with no differences found. Overall, less than 1 in 10 of those using nicotine had not used another substance (Figure 1), with 89% having also used alcohol. Half of those using nicotine had an AUDIT score of 6+, with third having an AUDIT score of 6+ and also using an illicit drug.

Participants were asked “Compared to regular cigarettes, do you think electronic cigarettes and vaping devices are more harmful or less harmful?” There was a significant difference in the responses to this question by nicotine use and route of administration (Table 3). Those who vaped were the group that most often correctly reported that vaping was less harmful than smoking regular cigarettes, with those that only smoked being the group that least often reported this.

### Discussion

This exploratory study indicates that among LGBTQ+ communities, whilst SDU was associated with feeling that the things you do in your life are worthwhile; the use of drugs to change feelings and appearance, and higher risk alcohol use, were associated with anxiety. The use of nicotine was negatively associated with most of the measures of subjective well-being examined here.

First, it is important to consider the generalizability of these findings. The participants were recruited through an online survey panel with recruitment not weighted to the general population. However, the demographic structure of the sample recruited closely reflects the structure of the LGBTQ+ population in the UK as indicated by national data on sexual orientation and gender identity collected in the most recent UK

**Table 1.** Participants characteristics.

Characteristics (n = 561)	n	Proportion (%)	
Sexual Orientation	Gay/Lesbian/Homosexual	184	33
	Bisexual	266	47
	Queer	34	6.1
	Pansexual	39	7.0
	Other incl Asexual & Heterosexual (trans persons only)	38	6.8
Gender identify	Trans Man	13	2.3
	Trans Woman	9	1.6
	Non-binary	42	7.5
	Cis Man	197	35
	Cis Woman	300	53
Age, in years	<25	109	19
	25–29	134	24
	30–34	118	21
	35–44	113	20
	45–54	54	9.6
	55+	33	5.9
	<i>Mean</i>		33.5
<i>Median (quartiles)</i>		31 (26, 39)	
Ethnicity (Ethnic group)	Asian	25	4.5
	Black	18	3.2
	Mixed	20	3.6
	Other	6	1.1
	White	492	88
	Relationship status	Single, never married/civil partnership	190
	Single, divorced, or widowed	20	3.6
	In a relationship, married, or civil partnership, but living apart	135	24
	In a relationship, married, or civil partnership, and living together (cohabiting)	213	38
	Prefer not to say	3	0.53
How comfortable do you feel being an LGBTQI+ person in the UK? (5 point scale)	Not comfortable (1 to 3)	223	40
	Comfortable (4 or 5)	336	60
	<i>Missing</i>	2	
In the past year, have you used drug(s) other than those required for medical reasons:- for the feelings or experience they cause (e.g., to change your mood, or to feel good)?	No	391	70
	Yes	170	30
to help alter your appearance (e.g., to help build muscle or lose weight)?	No	544	97
	Yes	17	3.0
to make having sex better (e.g., to make the sex you want to have easier or more pleasurable)?	No	513	91
	Yes	48	8.6
to help you work or study better (e.g., to help you concentrate or to improve creativity)?	No	521	93
	Yes	40	7.1
Alcohol use (AUDIT scores. three categories)	Don't Drink	117	21
	Low risk	279	50
	Increasing risk, higher risk or possible dependence	165	29
Nicotine use (smoking and/or vaping).	No	377	67
	Smoke only	39	7.0
	Vape only	96	17
	Snoke and Vape	49	8.7
	Overall on a scale of 0 (Not at all or Terrible) to 10 (Completely or Excellent), in general, how would you say your health is now?	<i>Mean</i>	
	<i>Median (quartiles)</i>		6 (5, 8)
to what extent do you feel that the things you do in your life are worthwhile?	<i>Mean</i>		6.1
	<i>Median (quartiles)</i>		7 (4, 8)
how happy did you feel yesterday?	<i>Mean</i>		5.5
	<i>Median (quartiles)</i>		6 (4, 7)
how anxious did you feel yesterday?	<i>Mean</i>		5.0
	<i>Median (quartiles)</i>		6 (3, 7)
how satisfied are you with your life nowadays?	<i>Mean</i>		5.4
	<i>Median (quartiles)</i>		6 (4, 7)

census (Office for National Statistics, 2023a, 2023b). Those who register with online survey panels may not be fully representative of the wider population, as those who sign-up may do so for particular reasons (e.g., payment), have easier access to IT, or greater IT literacy. Whilst standard questions and validated tools were used for the measures of well-being, alcohol, and nicotine use, the four questions related to the functional

reasons for drug use were developed for this exploratory study – with input from community members – and need further validation. This approach to asking about drug use may, however, reduce the biases that can result from asking about use of a long list of substances as this can cause confusion (e.g., drugs having similar sounding names and street names vary between settings and geographies), and is time

**Table 2.** Associations between substance use and five ONS measures of subjective well-being.

	Feelings Drug Use (Yes/No)			Appearance Drug Use (Yes/No)			Sexualised Drug Use (Yes/No)														
	No	Yes		No	Yes		No	Yes													
	391	170		544	17		513	48													
Overall on a scale of 0 to 10,	Mean score	Adjusted OR	with 95% CI	p=	Mean score	Adjusted OR	with 95% CI	p=	Mean score	Adjusted OR	with 95% CI	p=									
how satisfied are you with your life nowadays?	5.6	5.1	0.93	0.86	–	1.00	0.054	5.4	4.6	0.89	0.73	–	1.08	0.233	5.4	5.6	1.03	0.90	–	1.17	0.661
to what extent do you feel that the things you do in your life are worthwhile?	6.2	5.9	0.96	0.89	–	1.04	0.320	6.1	5.4	0.90	0.74	–	1.09	0.268	6.0	6.9	<b>1.22</b>	<b>1.05</b>	–	<b>1.42</b>	<b>0.011</b>
how happy did you feel yesterday?	5.6	5.2	0.94	0.87	–	1.02	0.123	5.5	4.6	0.87	0.71	–	1.07	0.199	5.4	6.1	1.12	0.97	–	1.28	0.115
how anxious did you feel yesterday?	4.8	5.6	<b>1.08</b>	<b>1.01</b>	–	<b>1.16</b>	<b>0.028</b>	5.0	6.8	<b>1.31</b>	<b>1.05</b>	–	<b>1.62</b>	<b>0.015</b>	5.1	4.4	0.93	0.83	–	1.05	0.264
in general, how would you say your health is now?	6.2	6.0	0.98	0.89	–	1.07	0.632	6.2	5.0	<b>0.78</b>	<b>0.62</b>	–	<b>0.98</b>	<b>0.031</b>	6.1	6.1	0.97	0.83	–	1.13	0.689

	Work or Study Drug Use (Yes/No)			Alcohol AUDIT Score (≤5/6+)			Nicotine use (Yes/No)														
	No	Yes		≤5	6+		No	Yes													
	521	40		396	165		377	184													
Overall on a scale of 0 to 10,	Mean score	Adjusted OR	with 95% CI	p=	Mean score	Adjusted OR	with 95% CI	p=	Mean score	Adjusted OR	with 95% CI	p=									
how satisfied are you with your life nowadays?	5.5	4.9	0.90	0.78	–	1.03	0.130	5.4	5.6	1.01	0.93	–	1.09	0.774	5.5	5.2	0.95	0.88	–	1.02	0.144
to what extent do you feel that the things you do in your life are worthwhile?	6.1	5.7	0.94	0.81	–	1.08	0.368	6.0	6.2	0.98	0.91	–	1.06	0.651	6.2	5.8	<b>0.93</b>	<b>0.86</b>	–	<b>1.00</b>	<b>0.046</b>
how happy did you feel yesterday?	5.5	5.6	1.05	0.91	–	1.21	0.541	5.5	5.5	0.97	0.90	–	1.05	0.511	5.7	5.1	<b>0.89</b>	<b>0.82</b>	–	<b>0.96</b>	<b>0.003</b>
how anxious did you feel yesterday?	5.0	5.0	0.97	0.85	–	1.11	0.663	5.0	5.3	<b>1.08</b>	<b>1.00</b>	–	<b>1.16</b>	<b>0.042</b>	4.9	5.4	<b>1.09</b>	<b>1.02</b>	–	<b>1.17</b>	<b>0.011</b>
in general, how would you say your health is now?	6.2	5.6	0.88	0.75	–	1.03	0.116	6.1	6.2	0.99	0.90	–	1.08	0.793	6.2	5.9	<b>0.90</b>	<b>0.82</b>	–	<b>0.98</b>	<b>0.018</b>

Odds ratios are adjusted for sexual orientation, gender identity, and age, using logistic regression.

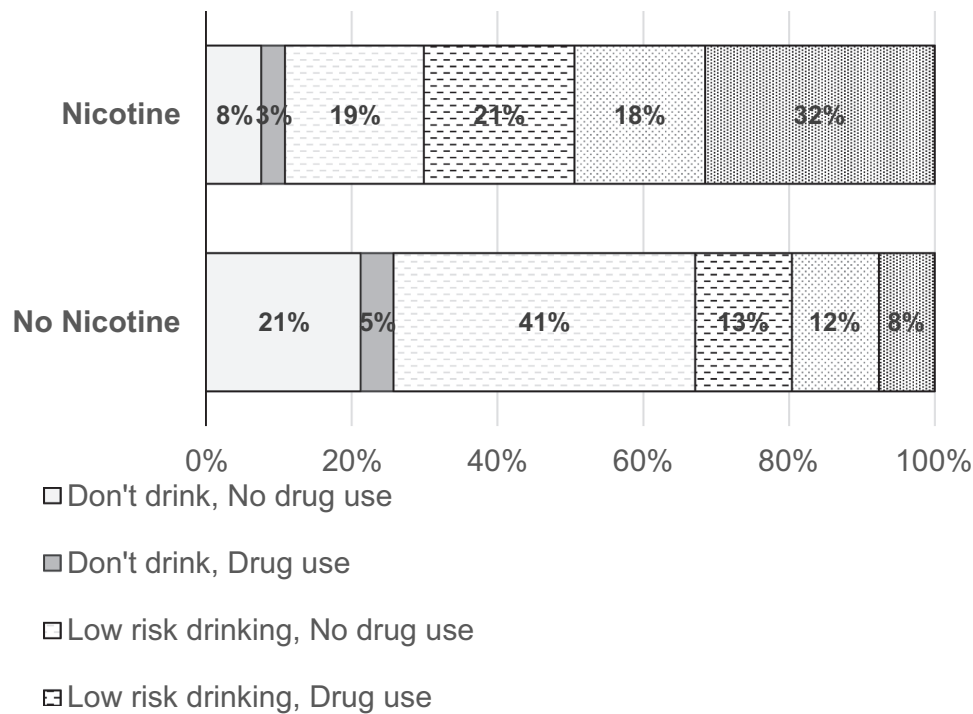


Figure 1. Extent of use of alcohol or illicit drugs by nicotine use.

Table 3. Perceptions of the comparative risk of electronic cigarettes and vaping devices to regular cigarettes.

	Compared to regular cigarettes, do you think electronic cigarettes and vaping devices are more harmful or less harmful				Total	<i>p</i> *
	More harmful than regular cigarettes	Equally harmful	Less harmful than regular cigarettes	Don't Know		
No nicotine	39 10%	170 45%	124 33%	44 12%	377	<0.001
Smoke only	6 15%	18 46%	9 23%	6 15%	39	
Smoke and Vape	4 8.2%	15 31%	26 53%	4 8.2%	49	
Vape only	2 2.1%	15 16%	72 75%	7 7.3%	96	
Total	51 9.1%	218 39%	231 41%	61 11%	561	

consuming to complete, which can result in questions not being answered or incorrect responses. The wording – “used drug(s) other than those required for medical reasons” - might have resulted in some under reporting of use if this was seen as self-direct mediation for a diagnosed medical condition. Finally, this was a cross-sectional study focused on exploring associations between substance use and measures of subjective well-being, and so does not allow us to examine causation. Considering these issues, caution is therefore needed in interpreting the findings presented here.

The scores on the four ONS self-reported measures of subjective well-being were lower than those reported in the UK general population for Q1 2024 (Office for National Statistics, 2025). The mean score for feeling life was worthwhile was 6.1 for participants in this study compared to 7.8 for general population, for happiness the score was 5.5 vs. 7.3, for anxiety 5.0 vs. 3.2, and for life satisfaction 5.4 vs. 7.5. This is in-line with other studies that indicate LGBTQ+ people report lower overall subjective well-being (King et al., 2008; Pitman et al., 2021; Plöderl & Tremblay, 2015; Silveri et al., 2022).

Over the past two decades, much of the research on substance use among LGBTQ+ communities has been focused on SDU, particularly “chemsex” among gay and bisexual men (Coronado-Muñoz et al., 2024; Hibbert et al., 2019; Stevens et al., 2020; Yang et al., 2023), with this research typically concerned with the extent of SDU and the associated harms (Drückler et al., 2021; Frankis et al., 2018; Stevens et al., 2020; Troiano et al., 2018). Here, we found that SDU was associated with feeling life was more worthwhile, which supports the much smaller body of research that has highlighted the positive aspects of SDU (Drysdale et al., 2021; Hakim, 2019; Moyle et al., 2020). Our findings also indicate that two of the other functional reasons for drug use examined were associated, in varying ways, with indicators of poorer subjective well-being, particularly anxiety. This supports there being a complex relationship between substance use and wellbeing with this in part related to the functional reason(s) for use. It is possible these functional reasons for use may be a response to concerns about stigma and/or discrimination, e.g., to look physically stronger, and so feel less vulnerable; or to perform better in education or work to access professions where they feel more comfortable

(Monaghan, 2003). However, in our cross-sectional study, it is not possible to assess causal relationships, though substance use may well be a response – e.g., self-directed therapy or coping mechanism – to well-being issues such as anxiety, rather than a cause. It is likely that the relationship between well-being and substance use will work both ways – with poorer well-being leading to substance use in some circumstances and in other circumstances substance use leading to well-being issues – and there may be a complex interplay between these that is context-specific. Further research is needed to explore these relationships. Nevertheless, three of the functional forms of drug use, higher risk alcohol use, and nicotine use were all associated with anxiety, indicating there is a need for responses to address anxiety and reduce its causes among LGBTQ+ populations.

Nicotine use was higher than in the general population (Office for National Statistics, 2020), with many still smoking tobacco. Tobacco smoking is much riskier than vaping nicotine, indicating a need for harm reduction approaches to support transitions to vaping so as to reduce harm. However, those who smoke were more likely to think vaping was more harmful than smoking, when the opposite is true (Yayan et al., 2024). This indicates interventions to reduce harm through the transition from smoking to vaping will need to address people's knowledge and beliefs about smoking and vaping. Nicotine use was associated with poorer well-being indicating responses to reduce harm and its use, will need to be grounded in improving overall subjective well-being. Its use may be related to a much wider range of psychosocial factors that can also impact mental well-being across population groups, such as, trauma, adverse childhood events, poverty, and disability (Bellis et al., 2017; Degenhardt & Hall, 2001; Public Health England, 2015). Further research is needed to better understand the intersecting factors that underpin current nicotine use and its relationship with poorer subjective well-being in LGBTQ+ communities.

In this study, we looked at drug use, other than alcohol and nicotine, by asking, not about the specific substances used, but about the functional reasons for the using. Whilst studies often explore the use of drugs for specific reasons or functions such as SDU or to alter image or appearance (Coronado-Muñoz et al., 2024; Drückler et al., 2021; Griffiths et al., 2017; Hibbert et al., 2019; Kutscher et al., 2024; Maxwell et al., 2019), these studies usually focus on those substances that are associated with these forms of use. We adopted a functional focus here as we were interested in why people were using drugs rather than what they used. However, this was also in part due to wanting to avoid asking about a long list of substances which can be time consuming and confusing and will not say anything about the function or functions that the substance is being used for. The questions used were developed for this project, and needed further validation, but this functional approach to drug use could help in developing a better understanding the drivers of use and also provide an easier way to assess use where details of the specific substances used are either not needed or challenging to obtain.

Substance use among LGBTQ+ individuals tends to be higher than in the general population (Australian Institute of Health and Welfare, 2025; Bränström & Pachankis, 2018;

Demant et al., 2017; Freitag et al., 2021; Jackson et al., 2016; Krasnova et al., 2021; Office for National Statistics, 2020; Pitman et al., 2021; Rosner et al., 2021). This is likely influenced by psychosocial challenges associated with stigma, prejudice, and discrimination (Borgogna et al., 2019; Frost et al., 2015; Katz-Wise & Hyde, 2012; Kelleher, 2009; King et al., 2008; Pachankis & Bränström, 2018) highlighting the importance of tailored interventions for LGBTQ+ individuals. Responses to substance use among LGBTQ+ people need to consider this in the context of people's well-being, particularly the association found here with anxiety. Culturally component and affirmative responses should be offered to reduce barriers to service access and support for substance use among LGBTQ+ people. However, these responses also need to work to improve well-being, particularly reducing anxiety, for example, through building resilience and strengthening coping resources (Hill & Gunderson, 2015; Kwon, 2013).

## Conclusion

Responses to drug use among sections of LGBTQ+ community should be situated in better understanding and addressing the more common form of substance use, particularly nicotine and alcohol use, and their associated harms. The current high profile of SDU should not distract policy, response, and research from illicit substance use for other functions and the use of nicotine and alcohol, which are more common and are likely to be associated with greater harm overall. There is a need for further research on substance use among LGBTQ+ communities that explores the range of functional reasons for substance use in the context of understanding the drivers, motivations, harms, and benefits of use and how these vary by the functional reason(s) for use.

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## Author contributions

CRedit: **V. D. Hope**: Conceptualization, Data curation, Formal analysis, Investigation, Project administration, Writing – original draft, Writing – review & editing; **Hannah Madden**: Conceptualization, Writing – review & editing; **Gordon Hay**: Conceptualization, Data curation, Investigation, Writing – review & editing; **Evelyn Hearne**: Conceptualization, Investigation, Writing – review & editing.

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