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Mental health and access to support among 2SLGBTQ+ youth



by Mila Kingsbury and Leanne Findlay

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ABSTRACT

Background

Compared with their cisgender heterosexual peers, youth who are Two-Spirit, lesbian, gay, bisexual, transgender, and queer and those who use other terms related to gender or sexual diversity (2SLGBTQ+) are at elevated risk for mental health difficulties and suicidality. The social experiences of 2SLGBTQ+ youth, including the impact of minority stress, access to social support, and experiences of negative social interactions, may contribute to this disparity.

Data and methods

Participants were 2,047 youth aged 15 to 24 years who responded to the 2022 Mental Health and Access to Care Survey. The 2SLGBTQ+ population was derived from youth reports of their gender, sex at birth, and sexual orientation. Two dimensions of social experiences were assessed using the Social Provisions Scale and the Negative Social Interactions Scale. Symptoms of mental health and substance use disorders were assessed via computer-assisted diagnostic interview using a modified version of the World Health Organization Composite International Diagnostic Interview (CIDI). Use of formal and informal mental health supports was self-reported by youth.

Results

Results indicated significant group differences in the proportion of youth meeting criteria for any CIDI disorder, a major depressive episode, generalized anxiety disorder, and suicidal ideation in the past 12 months. For example, 56% (95% confidence interval [CI]: 49 to 63) of 2SLGBTQ+ youth met criteria for any CIDI disorder, compared with 29% (95% CI: 26 to 32) of cisgender heterosexual youth. Logistic regression models suggested that after adjusting for demographic covariates, 2SLGBTQ+ youth were at elevated risk of these mental health conditions compared with their cisgender heterosexual peers. These differences remained apparent after adjusting for social support and negative social interactions. Among those meeting criteria for any disorder, 2SLGBTQ+ youth were more likely to report receiving formal and informal mental health support.

Interpretation

2SLGBTQ+ youth are at elevated risk of several indicators of poor mental health compared with their cisgender heterosexual peers – differences which are not fully explained by their access to social support and negative social interactions. Some of the remaining differences may potentially be explained by the impact of unmeasured aspects of minority stress on 2SLGBTQ+ youth.

Keywords

Mental health, adolescents, young adults, sexual and gender diversity

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What is already known on this subject?

- 2SLGBTQ+ youth are at elevated risk for mental health difficulties and suicidality compared with their cisgender heterosexual peers.
- The social experiences faced by 2SLGBTQ+ youth may contribute to this disparity.

What does this study add?

- Mental health disparities between 2SLGBTQ+ youth and their cisgender heterosexual peers remained significant after adjusting for social support and negative social interactions.
- 2SLGBTQ+ youth who meet criteria for mental disorders included in this study are more likely to seek formal mental health support.

Adolescence and early adulthood represent particularly critical periods for the onset of mental health symptoms, with many mental illnesses first developing before the age of 24.^{1,2} Youth who are Two-Spirit, lesbian, gay, bisexual, transgender, or queer or who use other terms related to gender or sexual diversity (2SLGBTQ+ [Appendix Note 1]) are at particular risk for mental health difficulties, including mood and anxiety disorders, substance use, self-harm, and suicidality.³⁻⁵

One potential driver of the mental health inequalities experienced by 2SLGBTQ+ young people is minority stress.⁶ Minority stress describes the experiences of prejudice and social stress faced by historically stigmatized groups, which may significantly impact physical and mental health.^{7,8} Although societal attitudes toward sexually diverse people (and to a lesser extent, gender diverse individuals) have changed rapidly over the past five decades,⁹ 2SLGBTQ+ youth still face significant discrimination, stigma, violence, peer exclusion, and family rejection.¹⁰ Data also continue to show inequities in mental health and substance use between 2SLGBTQ+ youth and their cisgender heterosexual counterparts.^{4,5,11}

In line with minority stress theory, the social context faced by 2SLGBTQ+ youth has been identified as a major factor affecting mental health. Compared with their counterparts, 2SLGBTQ+ youth more often experience negative interactions with peers, with family members, and in the larger social environment, which can be detrimental to their mental health.¹² By contrast, social support from families and peers has been identified as a potential protective factor for 2SLGBTQ+ youth mental health.¹³ In addition to these informal sources of social support, 2SLGBTQ+ youth may also face barriers in accessing formal mental health support (i.e., from doctors, psychologists, and other health professionals), including fear of discrimination, previous negative interactions with health professionals, and health supports that are not attuned to the specific needs of this population.¹⁴ Research examining the negative and positive social experiences of 2SLGBTQ+ youth may help shed light on the mechanisms by which these factors

may influence mental health. A recent review noted that although several cross-sectional studies have examined the role of social support for 2SLGBTQ+ youth, these have been limited by small, non-representative samples.¹³ Moreover, compared with lesbian, gay, and bisexual youth, transgender and non-binary youth remain critically understudied.

The purpose of the present study is to (1) describe the mental health and service use of 2SLGBTQ+ youth compared with those of their cisgender heterosexual peers and (2) examine the role of young people's social support and negative social interactions in explaining mental health inequities between 2SLGBTQ+ youth and their peers.

Methods

Data source

Data were drawn from the 2022 Mental Health and Access to Care Survey (MHACS), a survey of the mental health of Canadians aged 15 and over living in the 10 provinces. Excluded from the survey's coverage are people living on First Nations reserves or settlements; full-time members of the Canadian Forces; and people living in collective dwellings, such as institutional residences.¹⁵ The sampling frame was the long-form census questionnaire, and the target population was stratified by age group (15 to 24, 25 to 44, 45 to 64, and 65 and over), by gender (man or woman) (see Appendix Note 2), and by population group, oversampling for four groups designated as visible minorities by the *Employment Equity Act* (South Asian, Black, Chinese, and Filipino).¹⁶ The present study used data from N = 2,047 youth aged 15 to 24. The response rate for this age group was 19.5%.

Measures

2SLGBTQ+ status: Three variables were used to identify the 2SLGBTQ+ population: sex at birth, gender, and sexual orientation. Respondents self-reported their sex at birth ("male"

or “female”) and their gender (“male,” “female,” or “please specify”). Youth whose reported gender did not correspond to their reported sex at birth were considered to be transgender or non-binary.¹⁷ Youth additionally reported their sexual orientation (“heterosexual,” “lesbian or gay,” “bisexual,” or “please specify”). For analytical purposes, a binary variable was created regrouping individuals who were transgender, non-binary, lesbian or gay, bisexual, or of another sexual orientation than heterosexual under the aggregate 2SLGBTQ+ to compare 2SLGBTQ+ youth with their cisgender heterosexual peers.

Mental health and substance use: Participants’ symptoms of depression, generalized anxiety, mania, social phobia, and alcohol and substance use during the past year were assessed using a modified version of the World Health Organization Composite International Diagnostic Interview (CIDI), adapted for use with computer-assisted interviewing. Suicidal ideation during the past year was additionally assessed with the question,

“In the past 12 months, did you seriously think about suicide or taking your own life?” The present study included five main outcomes: met criteria for any assessed mental health or substance use disorder in the past 12 months (which includes a major depressive episode, mania, bipolar I disorder, bipolar II disorder, generalized anxiety disorder, alcohol abuse and dependence, cannabis abuse and dependence, drug abuse and dependence, and social phobia), met criteria for a major depressive episode in the past 12 months, met criteria for generalized anxiety disorder in the past 12 months, met criteria for a substance use disorder (includes cannabis and alcohol abuse and dependence) in the past 12 months, and experienced suicidal ideation in the past 12 months.

Social experiences: Participants’ perceived levels of social support were assessed using the Social Provisions Scale (10 items, e.g., “I feel a strong emotional bond with at least one other person”).¹⁸ Item scores were summed to create a total

Table 1-1
Sample characteristics

	Full sample (n = 2,047)		
	Weighted %	95% confidence interval	
		from	to
Demographics			
Gender¹			
Men+	51.5	51.5	51.6
Women+	48.5	48.4	48.5
Age			
15 to 19	52.4	49.9	54.8
20 to 24	47.6	45.2	50.1
2SLGBTQ+ status			
Cisgender and heterosexual	83.6	81.5	85.6
Cisgender and lesbian or gay	2.2	1.5	3.1
Cisgender and bisexual	10.3	8.7	12.2
Cisgender and another orientation	2.3	1.6	3.2
Transgender or non-binary, all sexual orientations	1.6	1.0	2.6
Population group			
Indigenous person (First Nations, Métis, or Inuit)	4.4	3.3	6.0
Non-racialized non-Indigenous person	61.0	58.9	63.1
South Asian	9.3	9.0	9.7
Chinese	5.2	5.0	5.3
Black	5.9	5.7	6.1
Filipino	3.5	3.4	3.6
Other or multiple racialized population groups	10.7	9.1	12.5
Immigrant status			
Born in Canada	77.6	75.8	79.3
Born outside Canada	22.4	20.7	24.2
Population size			
Fewer than 1,000	14.8	12.8	16.8
1,000 to 99,999	18.1	15.8	20.3
100,000 or more	67.1	64.5	69.7
Mental health			
Meeting criteria in past 12 months			
Any CIDI disorder	33.6	31.1	36.2
Major depressive episode	13.5	11.6	15.3
General anxiety disorder	8.4	7.1	9.9
Substance use disorder	8.5	7.0	10.2
Suicidal ideation (past 12 months)	8.5	7.1	10.3
Accessed mental health support			
Any support	43.7	41.2	46.2
Informal support ²	40.1	37.7	42.7
Formal support ³	23.3	21.1	25.6

1. Because of the small size of the non-binary population, non-binary individuals are randomly distributed into the categories of women+ and men+.

2. Friend, family member, or co-worker, supervisor, or boss; self-help group; telephone help line; or Internet.

3. Psychiatrist, family doctor or general practitioner, psychologist, nurse, or social worker, counsellor, or psychotherapist; hospitalization; or online therapy.

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview.

Source: Mental Health and Access to Care Survey, 2022.

Table 1-2
Sample characteristics

Social experiences	Mean	95% confidence interval	
		from	to
Social Provisions Scale	35.1	34.8	35.3
Negative Social Interactions Scale	3.2	3.0	3.3

1. Because of the small size of the non-binary population, non-binary individuals are randomly distributed into the categories of women+ and men+.

2. Friend, family member, or co-worker, supervisor, or boss; self-help group; telephone help line; or Internet.

3. Psychiatrist, family doctor or general practitioner, psychologist, nurse, or social worker, counsellor, or psychotherapist; hospitalization; or online therapy.

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview.

Source: Mental Health and Access to Care Survey, 2022.

scale score, ranging from 0 to 30, with higher scores representing higher levels of social provisions. Youth also completed the Negative Social Interactions Scale (five items, e.g., “During the past month, how often have you felt that others were critical of you and things you did?”).¹⁹ Item scores were summed to create a total scale score, ranging from 0 to 12, with higher scores indicating more frequent negative social interactions.

Mental health support: Youth were asked whether they had talked to any of the following people about problems with their emotions, mental health, or substance use: psychiatrist; family doctor or general practitioner (GP); psychologist; nurse; social worker, counsellor, or psychotherapist; family member; friend; or co-worker, supervisor, or boss. For the present study, formal mental health support consisted of talking to a psychiatrist; family doctor or GP; psychologist; nurse; or social worker, counsellor or psychotherapist. Talking to family, friends, or co-workers was considered forms of informal mental health support.

Covariates: Respondents’ gender (Appendix Note 3), age group (15 to 19 or 20 to 24), and immigrant status (born outside Canada or born in Canada) were considered as covariates. Respondents reported on their racial or cultural background (population group was coded as follows: South Asian, Chinese, Black, Filipino, and other or multiple racialized population groups) (Appendix Note 1) and their Indigenous identity (First Nations, Métis, Inuit, or not an Indigenous person). Because of small sample sizes, Indigenous categories were combined into an aggregate Indigenous population. For analyses, population group was coded as follows: Indigenous person, non-racialized non-Indigenous person, and racialized person. Finally, the area of residence, based on postal code, was classified as rural (population fewer than 1,000), small or medium-sized population centre (population 1,000 to 99,999), or large population centre (population 100,000 or more).

Analysis

Cross-tabulations and Rao-Scott chi-square tests were used to compare the proportions of youth meeting criteria for the mental health disorders of interest and seeking different types of support across 2SLGBTQ+ and cisgender heterosexual subpopulations. Two-tailed t-tests were used to compare mean

scores on the Social Provisions Scale and Negative Social Interactions Scale between 2SLGBTQ+ youth and their cisgender heterosexual peers. Logistic regression analyses were used to estimate the odds of 2SLGBTQ+ young people meeting criteria for the mental health disorders of interest compared with their cisgender heterosexual peers, while adjusting for demographic covariates. A second set of logistic regression analyses additionally adjusted for the effect of social provisions (reverse-coded, such that higher scores indicate lower social provisions, to aid interpretation) and negative interactions. A sensitivity analysis predicted the odds of meeting criteria for the mental health disorders of interest from specific 2SLGBTQ+ subpopulations (cisgender lesbian or gay people; cisgender bisexual people; cisgender people of another sexual orientation than lesbian, gay, bisexual, or heterosexual; and transgender or non-binary people of any sexual orientation). Analyses were weighted using survey weights, based on the inverse probability of selection, as well as bootstrap weights with 1,000 resamples.

Results

Sample characteristics are presented in Table 1-1 and Table 1-2. In Canada, approximately 84% of youth aged 15 to 24 were cisgender and heterosexual, 2% were cisgender and lesbian or gay, 10% were cisgender and bisexual, 2% were cisgender and of another sexual orientation, and under 2% were transgender or non-binary. In addition, 61% of youth were non-racialized and non-Indigenous. Overall, 34% of youth living in Canada met criteria for any mental health or substance use disorder assessed by the CIDI in the past 12 months, 13% met criteria for a major depressive episode, 8% met criteria for generalized anxiety disorder, 9% met criteria for any substance use disorder, and 9% had experienced suicidal ideation in the past 12 months.

Mental health among 2SLGBTQ+ youth

The proportions of youth who met criteria for the mental health disorders of interest are presented in Table 2-1 and Table 2-2. The Rao-Scott chi-square tests indicated significant group differences in the proportion of youth meeting criteria for any CIDI disorder, a major depressive episode, generalized anxiety disorder, and suicidal ideation. For example, 56% of

Table 2-1
Mental health and social provisions, by 2SLGBTQ+ status

	Cisgender heterosexual			2SLGBTQ+			Rao-Scott X ²	p-value
	95% confidence interval			95% confidence interval				
	%	from	to	%	from	to		
Meeting criteria in past 12 months								
Any CIDI disorder	29.1	26.4	31.7	56.0	49.0	63.1	52.17	<0.0001
Major depressive episode	10.5	8.8	12.3	27.2	20.7	33.8	39.75	<0.0001
General anxiety disorder	5.7	4.5	7.1	22.8	17.5	29.0	28.10	<0.0001
Substance use disorder	8.0	6.4	10.0	11.3	7.5	16.7	1.70	0.193
Suicidal ideation (past 12 months)	5.4	4.3	6.9	24.9	18.8	32.1	28.24	<0.0001

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview.

Source: Mental Health and Access to Care Survey, 2022.

Table 2-2
Mental health and social provisions, by 2SLGBTQ+ status

	Cisgender heterosexual			2SLGBTQ+			t-value	p-value
	95% confidence interval			95% confidence interval				
	Mean	from	to	Mean	from	to		
Social Provisions Scale	35.2	35.0	35.5	34.7	34.0	35.4	1.49	0.136
Negative Social Interactions Scale	3.0	2.9	3.2	3.9	3.6	4.3	-4.85	<0.0001

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview.

Source: Mental Health and Access to Care Survey, 2022.

Table 3
Results of logistic regression models predicting mental health indicators, adjusted for sociodemographic covariates

	Any CIDI disorder (past 12 months)		Major depressive episode (past 12 months)		Suicidal ideation (past 12 months)		Generalized anxiety disorder (past 12 months)		Substance use disorder (past 12 months)						
	Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval				
		from	to		from	to		from	to		from	to			
2SLGBTQ+ status¹															
2SLGBTQ+	2.58 *	1.85	3.59	2.84 *	1.91	4.23	4.78 *	3.01	7.60	4.16 *	2.69	6.65	1.36	0.74	2.49
Gender²															
Women+	2.15 *	1.66	2.79	2.01 *	1.42	2.84	1.68 *	1.08	2.59	2.06 *	1.32	3.18	0.69	0.43	1.10
Age group³															
15 to 19	0.83	0.64	1.09	1.07	0.75	1.52	1.10	0.72	1.67	0.77	0.50	1.19	0.51 *	0.32	0.80
Population group⁴															
Indigenous person	1.45	0.65	3.26	1.08	0.35	3.32	1.47	0.49	4.41	0.55	0.14	2.13	3.02 *	1.16	7.85
Racialized person	0.78	0.57	1.06	1.16	0.77	1.75	1.38	0.85	2.26	0.86	0.49	1.48	0.41	0.22	0.76
Population size⁵															
Fewer than 1,000	1.14	0.77	1.70	0.72	0.40	1.31	0.72	0.33	1.54	1.22	0.65	2.29	1.27	0.71	2.27
1,000 to 99,999	0.97	0.67	1.41	0.77	0.47	1.28	1.31	0.77	2.22	1.13	0.61	2.09	0.93	0.48	1.78
Immigrant status⁶															
Born outside Canada	0.99	0.72	1.36	0.86	0.56	1.33	0.60	0.35	1.01	0.74	0.40	1.35	1.13	0.57	2.24

* significantly different from reference category (p < 0.05)

1. Reference category: Cisgender heterosexual.

2. Women+ includes women and some non-binary people. Reference category: Men+ (includes men and some non-binary people).

3. Reference category: 20 to 24.

4. Reference category: Non-racialized non-Indigenous person.

5. Reference category: Population centre with a population of 100,000 or more.

6. Reference category: Born in Canada.

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview.

Source: Mental Health and Access to Care Survey, 2022.

2SLGBTQ+ youth met criteria for any disorder, compared with 29% of cisgender heterosexual youth. Means and 95% confidence intervals for the Social Provisions Scale and Negative Social Interactions Scale are also presented in Table 2-1 and Table 2-2. T-tests indicated that 2SLGBTQ+ youth had similar levels of social provisions as their cisgender heterosexual peers (mean = 34.7 versus 35.2, p = 0.136), but tended to report higher levels of negative interactions (mean = 3.9 versus 3.0, p < 0.0001).

Logistic regression models predicting mental health outcomes among 2SLGBTQ+ youth and covariates are presented in Table 3. Compared with their cisgender heterosexual peers, 2SLGBTQ+ youth had elevated odds of meeting criteria for any CIDI disorder, a major depressive episode, generalized anxiety disorder, and suicidal ideation. The odds of meeting criteria for a substance use disorder were not significantly higher than those for cisgender heterosexual youth. Women had an elevated risk of meeting criteria for any CIDI disorder, a major depressive

episode, generalized anxiety disorder and suicidal ideation (Table 3). When social provisions and negative interactions were included in the model, associations between being 2SLGBTQ+ and mental health outcomes remained significant (Table 4). The Social Provisions Scale was negatively associated with all mental health indicators, whereas the Negative Social Interactions Scale was positively associated with these indicators (Table 4). Potential interactions between two measures of social experiences and 2SLGBTQ+ status were tested (i.e., 2SLGBTQ+*social provisions; 2SLGBTQ+*negative interactions), but none were found to be statistically significant (Table 4). Results of sensitivity analysis suggested that the subpopulations of 2SLGBTQ+ youth were each at elevated risk of mental health disorders. However, confidence intervals were large because of small cell sizes, resulting in estimates of low quality. Results of the model predicting meeting criteria for any CIDI disorder are presented in Appendix Table 1; results should be interpreted with caution because of small cell sizes.

Mental health support

The final analyses considered only youth who met criteria for any mental health or substance use disorder assessed by the CIDI in the past 12 months. Proportions of young people meeting criteria for any disorder who reported accessing each type of support are presented in Table 5. Rao-Scott chi-square tests of independence suggested that 2SLGBTQ+ youth who

met criteria for any disorder more often reported accessing any type of support for mental health or substance use, compared with their cisgender heterosexual peers (84% versus 66%, respectively), including informal support (80% versus 61%) and formal support (66% versus 38%), specifically from a psychiatrist (19% versus 7%); GP (39% versus 21%); psychologist (20% versus 11%); or social worker, counsellor, or therapist (40% versus 14%) (details in Table 5).

Discussion

This nationally representative study of over 2,000 young people aged 15 to 24 finds that 2SLGBTQ+ youth in Canada experience a disproportionate burden of mental ill health. Among 2SLGBTQ+ youth, more than half met criteria for any mental health or substance use disorder in the past 12 months (compared with 29% of cisgender heterosexual youth), and one in four had experienced suicidal ideation in the past year (compared with 5% of cisgender heterosexual youth). Results of logistic regression analyses suggested that after adjusting for important sociodemographic covariates, 2SLGBTQ+ youth were at elevated risk of a mental health disorder, including a major depressive episode, generalized anxiety disorder, and suicidal ideation, compared with their cisgender heterosexual peers. No significant differences were noted in the prevalence or adjusted odds of meeting criteria for a substance use disorder.

Table 4
Results of logistic regression models predicting mental health indicators, additionally adjusted for social provisions and negative interactions

	Any CIDI disorder (past 12 months)			Major depressive episode (past 12 months)			Suicidal ideation (past 12 months)			Generalized anxiety disorder (past 12 months)			Substance use disorder (past 12 months)		
	Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval		Adjusted odds ratio	95% confidence interval	
		from	to		from	to		from	to		from	to		from	to
2SLGBTQ+ status¹															
2SLGBTQ+	2.33 *	1.58	3.43	2.40 *	1.55	3.70	4.80 *	2.96	7.76	3.47 *	2.13	5.64	1.09	0.58	2.06
Gender²															
Women+	2.04 *	1.52	2.75	1.91 *	1.30	2.79	1.35	0.83	2.21	2.06 *	1.25	3.40	0.61 *	0.37	1.00
Age group³															
15 to 19	0.77	0.57	1.03	0.92	0.63	1.34	0.83	0.51	1.36	0.67	0.41	1.08	0.42 *	0.27	0.68
Population group⁴															
Indigenous person	1.15	0.50	2.65	0.81	0.30	2.14	0.80	0.25	2.59	0.59	0.14	2.48	2.90 *	1.21	6.93
Racialized person	0.53 *	0.37	0.76	0.79	0.50	1.23	0.89	0.51	1.56	0.57	0.32	1.03	0.32 *	0.17	0.61
Population size⁵															
Fewer than 1,000	1.20	0.77	1.87	0.64	0.34	1.21	0.71	0.32	1.57	1.26	0.63	2.53	1.15	0.61	2.16
1,000 to 99,999	0.92	0.60	1.42	0.64	0.37	1.12	0.90	0.49	1.63	1.13	0.59	2.15	0.86	0.45	1.66
Immigrant status⁶															
Born outside Canada	1.09	0.76	1.56	0.84	0.54	1.32	0.62	0.35	1.09	0.86 *	0.47	1.58	1.18	0.55	2.51
Social provisions (reversed)	1.07 *	1.03	1.11	1.10 *	1.05	1.15	1.15 *	1.09	1.22	1.08 *	1.02	1.13	1.07 *	1.02	1.12
Negative interactions	1.43 *	1.34	1.53	1.34 *	1.25	1.44	1.34 *	1.22	1.47	1.35 *	1.23	1.48	1.21 *	1.11	1.33
	Estimate	t-value	p-value	Estimate	t-value	p-value	Estimate	t-value	p-value	Estimate	t-value	p-value	Estimate	t-value	p-value
Interaction terms⁷															
2SLGBTQ+ x social provisions	0.04	1.47	0.142	0.02	0.90	0.368	-0.03	-0.86	0.388	0.03	1.45	0.147	0.02	0.58	0.560
2SLGBTQ+ x negative interactions	-0.03	-0.55	0.583	0.01	0.17	0.862	0.00	0.09	0.929	-0.03	-0.62	0.537	-0.08	-1.37	0.171

* significantly different from reference category (p < 0.05)

1. Reference category: Cisgender heterosexual.
2. Women+ includes women and some non-binary people. Reference category: Men+ (includes men and some non-binary people).
3. Reference category: 20 to 24.
4. Reference category: Non-racialized non-Indigenous person.
5. Reference category: Population centre with a population of 100,000 or more.
6. Reference category: Born in Canada.
7. Not included in final models.

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview.

Source: Mental Health and Access to Care Survey, 2022.

Table 5
Proportion accessing support among those meeting criteria for any disorder assessed by the Composite International Diagnostic Interview

	Cisgender heterosexual			2SLGBTQ+			Rao-Scott X2	p-value
	95% confidence interval			95% confidence interval				
	%	from	to	%	from	to		
Any support	66.4	60.6	71.8	84.1	75.5	90.0	13.6	<0.001
Informal support¹	60.8	55.0	66.3	80.4	71.5	87.0	15.6	<0.0001
Formal support²	38.0	32.5	43.8	66.4	56.9	74.8	23.3	<0.0001
Psychiatrist	7.5	4.7	10.3	19.3	12.1	26.4	12.9	0.000
General practitioner	20.5	15.9	25.2	39.4	30.1	48.7	14.9	0.000
Psychologist	11.1	7.5	14.7	19.7	11.9	27.5	4.6	0.032
Nurse	4.8	2.3	7.3	6.4	2.1	10.7	0.4	0.503
Social worker, counsellor, or therapist	13.8	10.0	17.6	40.4	30.3	50.4	29.99	<0.0001

1. Friend, family member, or co-worker, supervisor, or boss; self-help group; telephone help line; or Internet.

2. Psychiatrist, family doctor or general practitioner, psychologist, nurse, or social worker, counsellor, or psychotherapist; hospitalization; or online therapy.

Note: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity.

Source: Mental Health and Access to Care Survey, 2022.

These findings are largely in line with a corpus of research linking being lesbian, gay, or bisexual with greater risk of poor mental health among young people,²⁰ with the addition of the understudied group of transgender and non-binary youth. Population-based research has historically been unable to examine mental health among transgender and non-binary youth as surveys have not assessed both sex at birth and gender until recently.²¹ Owing to the low base rate of gender diversity in the population (Appendix Note 5), studying this subpopulation of youth in population-based research remains challenging. Though this was also an issue with the MHACS, precluding in-depth analysis of the mental health of transgender and non-binary youth, results of sensitivity analysis suggested that transgender and non-binary youth were at elevated risk of mental illness compared with their cisgender heterosexual peers. These findings are in line with recent work suggesting higher risk of mental disorders³ and suicidality⁵ among transgender and non-binary youth.

With respect to substance use disorders, no disparities were found between 2SLGBTQ+ youth and their cisgender heterosexual peers, a finding that runs counter to previous work suggesting that sexually and gender diverse youth experience substance use difficulties at a higher rate than the general population.⁴ Some research suggests heterogeneity between 2SLGBTQ+ subgroups, as well as age groups, with some subpopulations showing disparities at younger age groups (i.e., 18 to 25) and some only in older age groups.²² The present study considered youth as young as 15, and this may have had implications for the reported rates of substance use disorders.

It has been suggested that the social experiences of 2SLGBTQ+ young people may be an important contributor to their mental health. The present study considered two facets of social experiences: perceived social support and negative social interactions. Its findings suggested that 2SLGBTQ+ youth reported similar levels of social support as their cisgender heterosexual peers. Though 2SLGBTQ+ youth more often report fraught relationships with family members, some previous research has suggested that these youth often receive social support from other sources, including friends and significant others, resulting in similar degrees of social support

when collapsed across sources of support.²³ As some research has suggested that the impacts of support from parents and peers may differ²⁴ and that support from one source may be able to serve as a buffer for youth against the effects of lack of support from another,²⁵ future researchers may wish to examine these various sources of support separately when possible.

In the present study, negative social interactions were more commonly reported among 2SLGBTQ+ youth. This finding reflects other work suggesting that sexually and gender diverse youth are at elevated risk of bullying,²⁶ cybervictimization,²⁷ and interpersonal violence^{28,29} compared with their peers.

According to minority stress theory, the mental health inequities faced by marginalized groups (e.g., 2SLGBTQ+ youth) are driven largely by social stressors such as stigma and discrimination.⁷ In the present study, social provisions and negative interactions were associated with mental health; whereas social provisions were associated with a lower likelihood of meeting criteria for a mental health or substance use disorder or experiencing suicidality, negative social interactions were associated with worse mental health across all dimensions measured. No interactions with being a 2SLGBTQ+ person were noted, suggesting that the effects of negative social experiences may be similar for all youth, regardless of sexual orientation and gender diversity. However, small cell sizes resulted in low power to detect interactions, and this may explain the lack of significant findings. Given that 2SLGBTQ+ youth experienced these negative interactions to a greater extent than their cisgender heterosexual peers, these negative social experiences remain a plausible mediator of the associations between being a 2SLGBTQ+ person and negative mental health outcomes.

Of note, when negative social interactions and social support were included in regression models, associations between being a 2SLGBTQ+ individual and mental health remained statistically significant. This finding suggests that factors other than the ones measured may drive these associations. Though negative social interactions were examined, this measure (which assessed general concepts, including perceived criticism and anger) does not capture the full range of negative social experiences faced by 2SLGBTQ+ youth, including prejudice,

discrimination, and family rejection. In addition, negative social experiences such as these are just one facet of the stressors likely faced by 2SLGBTQ+ youth, as laid out by minority stress theory. Other aspects of minority stress (e.g., internalized homophobia [or biphobia or transphobia] and concealment of identity)³⁰ should be considered in future research.

With respect to formal mental health support, among youth who met criteria for any mental health or substance use disorder measured by the CIDI, 2SLGBTQ+ young people were more likely to have talked to a health professional about their mental health or substance use than their cisgender heterosexual peers. This finding runs counter to previous research suggesting that 2SLGBTQ+ youth experience more barriers to service use and report greater unmet needs than their cisgender heterosexual peers.³¹ Several explanations are possible. First, 2SLGBTQ+ youth in Canada may be more aware of the availability of mental health services than their peers. Second, the stigma surrounding mental health difficulties may be lower among 2SLGBTQ+ young people than among the cisgender heterosexual population. Less optimistically, the severity of mental health symptoms experienced by 2SLGBTQ+ youth may be higher than that of their peers, and therefore more likely to require treatment or consultation. In addition, transgender and non-binary youth may seek consultation regarding gender dysphoria or gender-affirming care, necessarily putting them in contact with mental health professionals. Previous research indicates that sensitivity to the unique issues faced by 2SLGBTQ+ youth is a key factor influencing the effectiveness of treatment.³² Therefore, the implementation of services attuned to the specific needs and experiences of 2SLGBTQ+ youth is a critical step in improving mental health outcomes for this population.^{32,33}

Limitations and future directions

The present study examined the excess burden of mental illness among 2SLGBTQ+ youth. Ideally, research on the issues faced by 2SLGBTQ+ youth should examine 2SLGBTQ+ subgroups (e.g., bisexual youth, transgender youth) separately. It should also apply an intersectional lens, investigating, for example, the unique experiences of 2SLGBTQ+ youth who are also part of other marginalized groups (i.e., Black transgender youth, 2SLGBTQ2+ youth with disabilities). This may expose them to specific experiences and potentially different outcomes. Unfortunately, the present data did not allow sufficient sample sizes to examine multiple domains of marginalization interactively. Relatedly, although the MHACS is considered to be generally representative of the Canadian population as a whole, it is possible that it is not representative of 2SLGBTQ+ youth, because this subsample was relatively small. To address these issues, future researchers may wish to employ strategies such as pooling multiple years of data or targeted oversampling of groups of interest.³⁴

Conclusion

Among youth aged 15 to 24 in Canada, those who reported being 2SLGBTQ+ appear to be at elevated risk of experiencing poor mental health compared with their cisgender heterosexual peers. 2SLGBTQ+ youth report more negative social interactions than their peers, which are in turn associated with several indicators of mental health. However, associations between 2SLGBTQ+ status and mental health as measured in this study were independent of social support and negative interactions, suggesting that further research is needed to elucidate the mechanisms underlying these associations. As 2SLGBTQ+ youth with symptoms of mental illness are likely to seek professional support, service providers should become familiar with the unique needs of this population.

**Appendix
Notes**

1. Whereas the Government of Canada adopted and encourages the use of the acronym 2SLGBTQI+ to refer to Two-Spirit, lesbian, gay, bisexual, transgender, queer, and intersex people, and those who use other terms related to gender or sexual diversity, for the purposes of data analysis, the acronym 2SLGBTQ+ is used in this document, because information is not yet specifically collected about intersex people in Statistics Canada surveys.
2. A binary gender variable was derived from census responses to classify each person as either a man or a woman strictly for Mental Health and Access to Care Survey allocation purposes.
3. Because of the small size of the non-binary population, when data for this population could not be published to protect confidentiality, non-binary individuals were distributed into the categories of women+ and men+ using random imputation methods. This distribution process was conducted by the survey team before the data were released. For the full sample, the women+ category includes women and some non-binary people, and the men+ category includes men and some non-binary people. In analyses involving 2SLGBTQ+ status, only the 2SLGBTQ+ group includes non-binary people.
4. In this release, racialized groups are based on and measured using the detailed visible minority variable, in accordance with existing Statistics Canada standards. Information on visible minorities was first collected to apply the provisions of the *Employment Equity Act*, which defines visible minorities as “persons, other than Aboriginal persons, who are non-Caucasian in race or non-white in colour.” Racialized groups include, among others, South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean, and Japanese.
5. In 2021, transgender and non-binary people accounted for 0.73% of the population aged 15 to 19 and 0.85% of the population aged 20 to 24.¹

1. Statistics Canada. Canada is the first country to provide census data on transgender and non-binary people. *The Daily*, April 27, 2022.

**Appendix Table 1
Results of logistic regression predicting meeting criteria for any disorder assessed by the Composite International Diagnostic Interview from 2SLGBTQ+ subpopulation**

	Adjusted odds ratio	Any CIDI disorder (past 12 months)	
		95% confidence interval	
		from	to
2SLGBTQ+ status¹			
Cisgender and lesbian or gay	2.14 *	1.03	4.44
Cisgender and bisexual	2.43 *	1.60	3.69
Cisgender and another orientation	3.61 *	1.54	8.47
Transgender or non-binary, all sexual orientations	3.12 *	1.02	9.54
Gender²			
Women+	2.15 *	1.65	2.79
Age group³			
15 to 19	0.83	0.64	1.08
Population group⁴			
Indigenous person	0.77	0.57	1.05
Racialized person	1.46	0.65	3.26
Population size⁵			
Fewer than 1,000	1.14	0.77	1.69
1,000 to 99,999	0.97	0.67	1.40
Immigrant status⁶			
Born outside Canada	0.99	0.72	1.36

* significantly different from reference category (p < 0.05)

1. Reference category: Cisgender heterosexual.

2. Women+ includes women and some non-binary people. Reference category: Men+ (includes men and some non-binary people).

3. Reference category: 20 to 24.

4. Reference category: Non-racialized non-Indigenous person.

5. Reference category: Population centre with a population of 100,000 or more.

6. Reference category: Born in Canada.

Notes: 2SLGBTQ+: Two-Spirit, lesbian, gay, bisexual, transgender, and queer people and those who use other terms related to gender or sexual diversity; CIDI: Composite International Diagnostic Interview. Estimates for 2SLGBTQ+ subpopulations are based on small cell sizes; interpret with caution.

Source: Mental Health and Access to Care Survey, 2022.

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