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Sexual Orientation and Gender Identity Change Efforts and Suicide Morbidity Among Sexual and Gender Minority Adults in Colombia

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Abstract

Purpose*:* We assessed the association between sexual orientation and gender identity change efforts (SOGICE) experiences and lifetime suicide morbidity among sexual and gender minority (SGM) groups in Colombia.

Methods*:* A sample of 4160 SGM Colombian adults responded to an online cross-sectional survey. We used binary logistic regression to assess the relationship between SOGICE and suicide morbidity for the overall sample and stratified by SGM group.

Results*:* We found a high prevalence of suicidal ideation (56%), suicide planning (54%), suicide attempt (25%), and SOGICE experiences (22%). There were significant differences in the prevalence of suicide morbidity and SOGICE experiences across SGM groups, with transgender men and gender nonbinary participants being generally most at risk. SOGICE experiences were associated with 69% increased odds of suicidal ideation, 55% increased odds of suicide planning, and 76% increased odds of suicide attempt. Stratified analyses by SGM group showed that the association of SOGICE experiences with suicide morbidity varied by SGM group, and it was particularly detrimental for cisgender sexual minority men.

Conclusions*:* Suicide morbidity among SGM adults in Colombia is high, with rates that are 8–22 times higher than in the general population. SOGICE experiences further exacerbate suicide risk. The study findings highlight the need to design and implement policies affirming diverse sexual orientation and gender identities in Colombia and to ban SOGICE practices. These findings also highlight the importance of recognizing the variability within SGM groups and the need to examine these groups separately rather than treating them as a monolithic group.

Keywords: Colombia, conversion therapy, sexual orientation and gender identity change efforts, suicide morbidity

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Introduction

Suicide is a complex and multifaceted problem, with an increasing prevalence worldwide. In Colombia, the suicide rate has increased constantly over the past decade, from 4.53 suicide deaths per 100,000 inhabitants in 2009 to 5.93/ 100,000 inhabitants in 2018.[1] A 2015 nationally representative survey among Colombian adults found a lifetime prevalence of 6.5% for suicidal ideation, 2.4% for suicide planning, and 2.6% for suicide attempt.[2]

Little is known, however, about suicidal ideation, suicide planning and suicide attempts (i.e., suicide morbidity) among sexual and gender minority (SGM) populations in Colombia because information regarding sexual orientation and gender identity is not collected in nationally representative surveys and few studies have examined suicide morbidity among these populations. The only published study on suicidality among SGM groups in Colombia focused on cisgender sexual minority men only and showed that 48.6% reported moderate or high levels of suicidal ideation.[3] Although several Colombian laws protect SGM groups, the country's sociocultural context, particularly the long history of internal conflict and violence, accompanied by stigma and discrimination toward SGM groups may exacerbate suicide morbidity for SGM individuals.[4,5]

Research from several countries shows that suicide morbidity is higher among SGM groups relative to their cisgender heterosexual counterparts.[6–13] Evidence from a handful of reviews and meta-analyses suggests that suicide morbidity is not equally prevalent among all SGM groups. For instance, compared with their lesbian and gay counterparts, bisexual people have an increased risk of suicide.[14] Although most research has focused on cisgender lesbian, gay, and bisexual people, there is evidence that transgender people have an increased risk compared with cisgender and gender nonbinary (GNB) individuals.[13,15–17] Findings from meta-analytical research suggest that suicidal ideation is higher for transgender women than for transgender men, but suicide attempts are more common among transgender men.[16] In contrast, a systematic review on lifetime prevalence of suicidal ideation and behaviors among GNB youth found no significant differences by sex assigned at birth.[18] To our knowledge, no study has assessed the differential risk in suicide morbidity across SGM groups defined by the intersection of gender/sex assigned at birth (i.e., female or male) and sexual orientation/gender identity (i.e., lesbian, gay, bisexual, transgender or GNB). Understanding this differential risk can help us identify those at highest risk and design more targeted interventions.

Suicide prevention requires identifying factors associated with suicide morbidity among SGM populations. According to the minority stress model, SGM individuals experience unique stressors arising from widespread notions of hetero normativity and cisnormativity (i.e., the notion that everybody is cisgender), which drive stigma and discrimination toward SGM individuals, and have a detrimental impact on their mental health.[7,19,20] Exposure to sexual orientation and gender identity change efforts (SOGICE; i.e., ''conversion therapy'') may increase the risk for suicide morbidity among SGM individuals.[21–23] Less is known about the differences in SOGICE exposure among SGM groups,[24] and the moderating role of SGM groups in the association between SOGICE experiences and suicide morbidity.

In the present study, we describe the prevalence of lifetime suicidal ideation, suicide planning, and suicide attempts, and we assess the association between SOGICE experiences and suicide morbidity among SGM people in Colombia. We also assess differences among SGM groups defined at the intersection of gender/sex assigned at birth and sexual orientation/gender identity.

Methods

Sample and procedure

Participants completed a 20–40 minute self-administered online survey, between February and July 2019. Participants were recruited by using diverse outreach sources, including social media platforms (e.g., Instagram, Facebook), snowball sampling, and in-person recruitment at public events (e.g., LGBT festivals) and LGBT-specific locations (e.g., gay bars).[25] Respondents were eligible if they (1) identified as sexual or gender minority by using terms such as lesbian, gay, bisexual, and transgender; (2) resided in Colombia; and (3) completed fourth-grade education or more. Of 5304 eligible respondents who initiated the survey, we excluded 437 respondents who had more than 90% responses missing, and 707 for whom all suicide indicators were missing. The current analysis included 4160 participants. Before initiating the survey, respondents received an online consent form. A waiver of written consent was obtained. The study protocol received approval from the Institutional Review Boards of UCLA (US) and the Ser Feliz Is Free International Foundation (Colombia). Further details about study procedures have been presented elsewhere.[26]

Measures

Sexual orientation. Participants reported whether they identified as heterosexual, lesbian, gay, or bisexual.

Gender identity. We used a two-step method to assess gender identity. Participants first reported whether their sex assigned at birth was female or male and then whether their current gender identity was woman, man, transgender woman, transgender man, or gender nonbinary.[27]

Lifetime suicide morbidity. We adapted three items from the Army Study to Assess Risk and Resilience in Service Members instrument,[28] which was adapted from the Columbia Suicide Severity Rating Scale (C-SSRS),[29] to assess suicidal ideation (i.e., ''In your lifetime, did you ever have thoughts of killing yourself?''–Spanish: ''¿Alguna vez en su vida ha tenido pensamientos sobre suicidarse?''); suicide planning (i.e., ''Did you ever think about how you might kill yourself [e.g., taking pills, shooting yourself] or work out a plan of how to kill yourself?''–Spanish: ''¿Alguna vez penso´ en co´mo podr´ıa suicidarse [por ejemplo, tomando p´ıl- doras, dispara´ndose usted mismo] o ha ideado un plan para suicidarse?''); and suicide attempts (''Did you ever make a suicide attempt [i.e., purposefully hurt yourself with at least some intention to die]?''–Spanish: ''¿Alguna vez intento´ suicidarse [es decir, se hirio´ a propo´sito con al menos alguna intencio´n de morir]?'').

Sexual orientation and gender identity change efforts. We assessed SOGICE experiences by using an item for cisgender sexual minority and GNB participants (''Did you ever receive treatment from someone who tried to change your sexual orientation [such as try to make you straight/ heterosexual]?''–Spanish: ''Alguna vez recibio´ tratamiento de alguien que intento´ cambiar su orientacio´n sexual [como tratar de volverse heterosexual]?''),[21] and a separate item for transgender

individuals (''Have you ever received treatment from someone who tried to make you identify only with your sex assigned at birth [in other words, try to prevent you from being transgender]?''– Spanish: ''¿Alguna vez reci- bio´ tratamiento de alguien que intento´ hacerle identificarse solo con su sexo asignado al nacer [en otras palabras, tratar de evitar que usted fuera transge´nero]?'').[30] Response options for both items were: ''no''; ''yes, from a healthcare professional (such as a psychologist or counselor who was not reli gious focused)''; and ''yes, from a religious leader (such as a pastor, religious counselor, priest).'' For the purposes of the present analyses, we created a dichotomous variable as an indicator of ever having experienced SOGICE (0 = No; 1 = Yes), and, for those who reported experiencing SOGICE, we created a trichotomous variable to account for the source (1 = health care professional; 2 = religious leader; 3 = both).

Demographic covariates. Age, current unemployment (0 = employed, 1 = unemployed), and educational attainment (1 = high school diploma or less, 2 = technical/vocational school, 3 = college, 4 = postgraduate education) were included as covariates in multivariate analyses.

Data analyses

Using sexual orientation and gender identity, we identified eight SGM groups: cisgender lesbian women; cisgender gay men; cisgender bisexual women; cisgender bisexual men; transgender women; transgender men; GNB assigned female at birth (AFAB); and GNB assigned male at birth (AMAB). We report the prevalence of lifetime suicidal ideation, suicide planning, suicide attempts, and experiences of SOGICE for the total sample and by SGM group. We used chi-square tests for omnibus comparisons and Goodman's procedure for *post hoc* pairwise analyses (using Scheffe´'s approach)[31] to identify significant differences among SGM groups. We con ducted these analyses separately for each outcome variable as well as for experiences of SOGICE.

To examine the association of SOGICE exposure with lifetime suicide morbidity, we used logistic regression models, adjusting for demographic covariates. To assess whether the relationship between SOGICE and lifetime suicide morbidity varied across SGM groups, we re-ran the binary logistic regression models stratified by SGM group. We also used binary logistic regression models to explore the impact of SOGICE sources (i.e., health care professionals, religious leaders, or both) on lifetime suicide morbidity. We conducted all analyses in SPSS version 26 (IBM Corporation, Armonk, NY, 2019).

Results

Table 1 presents demographic information for the total sample and SGM groups. The majority of participants (n = 3691, 88.7%) were cisgender, 257 identified as GNB (6.2%), and 212 were transgender (5.1%). Participants' ages ranged from 18 to 85 (mean = 26.8; standard deviation = 9.5); 53.9% had a college-level education or more; and 72.5% were employed or studying. There were no significant differences in attrition by sexual orientation and gender identity, but participants who were excluded because of incomplete data were significantly younger than those included in the analyses t (1046.5) = 2.38, p = 0.018. Questions about SOGICE, education level, and employment were asked after indicators of suicidality and thus attrition analyses for these variables were not possible.

Prevalence of suicide morbidity and SOGICE experiences

Overall, 56.1% of the participants reported lifetime suicidal ideation, 54.1% reported ever making a suicide plan, and 25.0% reported at least one suicide attempt over their lifetime. Overall, 22.4% of the participants reported ever experiencing SOGICE; of them, 48.8% received SOGICE from a religious leader, 31.1% from a health care provider, and 20.1% from both sources (Table 2).

Differences by SGM group in suicide morbidity and SOGICE experiences

Suicidal ideation. The GNB AFAB participants had the highest prevalence of lifetime suicidal ideation (81%), and cisgender lesbian women reported the lowest prevalence (48%). Omnibus analyses indicated significant differences in suicidal ideation prevalence among SGM groups (v^2 = 90.41, df = 7, $p < 0.001$). *Post hoc* comparisons (Table 3) indicated that GNB AFAB participants were significantly more likely to report suicidal ideation compared with all other groups, except transgender men and GNB AMAB participants. Suicidal ideation was more prevalent among GNB AMAB participants than among cisgender lesbian women. Cisgender bisexual women were more likely to report suicidal ideation than cisgender lesbian women and cisgender gay men. Lastly, cisgender gay men had a higher prevalence of suicidal ideation than cisgender lesbian women.

Suicide planning. Lifetime prevalence ranged from 77% among GNB AFAB participants and 44% among cisgender lesbian women (Table 2). Omnibus analyses of differences in suicide planning across SGM groups were significant (v^2 = 68.08, df = 7, $p < 0.001$). The GNB participants—regardless of sex assigned at birth—were significantly more likely to report suicide planning compared with all other groups, except transgender men and cisgender bisexual women. Cisgender bisexual women were significantly more likely than cisgender lesbian women and cisgender gay men to report any suicide planning. Transgender men and cisgender gay men were more likely to have ever made a suicide plan compared with cisgender lesbian women (Table 3).

Suicide attempt. As shown in Table 2, GNB AFAB participants had the highest prevalence of lifetime suicide attempts (42%) and cisgender bisexual men had the lowest (20%). Omnibus analyses indicated significant differences across SGM groups (v^2 = 197.05, df = 7, $p < 0.001$). Specifically, cisgender bisexual women and GNB AFAB participants were significantly more likely to report ever attempting suicide compared with cisgender lesbian women, cisgender gay men, and cisgender bisexual men. All other pairwise comparisons were not significant (Table 3).

SOGICE experiences. SOGICE experiences were more common among transgender men (42%) and least common for cisgender bisexual women (17%). As in the case of all suicide morbidity indicators, omnibus chi-square analysis indicated significant differences in SOGICE experiences by SGM group (v^2 = 59.83, df = 7, $p < 0.001$). *Post hoc* analyses identified only three significant pairwise comparisons: SOGICE experiences were more common among cisgender lesbian women, transgender women, and transgender men than among cisgender bisexual women (Table 3).

Associations between SOGICE experiences and suicide morbidity

SOGICE experiences were positively associated with suicide morbidity after controlling for demographic variables (Table 4). For the overall sample, experiencing SOGICE was associated with 69% increased odds of lifetime suicidal ideation, 55% increased odds of suicide planning, and 76% increased odds of suicide attempt. In the stratified analyses, suicide behavior was higher in the group that experienced SOGICE for all SGM groups, except for suicide planning among GNB AMAB participants, which was 74% for participants with and without SOGICE experiences. Further, the point estimate adjusted odds ratio (AOR) for all comparisons is above 1.00, showing that SOGICE was associated with increased suicide morbidity for all groups. Analyses of the 95% confidence intervals show that the negative impact of SOGICE experiences was particularly strong among cisgen der gay and bisexual men for all suicide morbidity indicators, among transgender women for suicide planning, and among cisgender lesbian women for suicide attempts.

TABLE 1. DEMOGRAPHIC CHARACTERISTICS FOR THE TOTAL SAMPLE AND BY SEXUAL AND GENDER MINORITY GROUP (N=4160)

		Sexual and gender minority groups							
	Total sample (N=4160) % (95% CI)	*Cisgender lesbian women (n=1024) % (95% CI)*	*Cisgender gay men (n=1689) % (95% CI)*	*Cisgender bisexual women (n=722) % (95% CI)*	*Cisgender bisexual men (n=256) % (95% CI)*	*Transgender women (n=138) % (95% CI)*	*Transgender men (n=74) % (95% CI)*	*GNB AFAB (n=100) % (95% CI)*	*GNB AMAB (n=157) % (95% CI)*
Age (mean±SD)	26.8±9.5	28.4±9.2	27.0±9.5	23.9±7.5	25.7±9.9	32.4±14.8	30.4±15.0	24.5±7.8	23.2±6.2
Education									
High school diploma or less	21.9 (20.7–23.2)	17.8 (15.5–20.3)	19.0 (17.2–21.0)	27.0 (23.8–30.4)	21.9 (17.0–27.4)	39.9 (31.6–48.5)	32.4 (22.0–44.3)	27.0 (18.6–36.8)	33.8 (26.4–41.7)
Technical/vocational school	24.2 (22.9–25.5)	24.6 (22.0–27.4)	24.3 (22.3–26.5)	19.0 (16.2–22.0)	24.2 (19.1–29.9)	35.5 (27.6–44.1)	36.5 (25.6–48.5)	23.0 (15.2–32.5)	28.0 (21.2–35.7)
College	44.3 (42.8–45.9)	46.6 (43.5–49.7)	44.9 (42.5–47.3)	47.4 (43.7–51.1)	45.7 (39.5–52.0)	21.0 (14.5–28.8)	28.4 (18.5–40.1)	44.0 (34.1–54.3)	35.0 (27.6–43.0)
Postgraduate	9.6 (8.7–10.5)	11.0 (9.2–13.1)	11.7 (10.2–13.4)	6.6 (4.9–8.7)	8.2 (5.1–12.3)	3.6 (1.2–8.3)	2.7 (0.3–9.4)	6.0 (2.2–12.6)	3.2 (1.0–7.3)
Employment									
Unemployed	16.9 (15.7–18.0)	14.9 (12.8–17.3)	18.0 (16.2–19.9)	14.4 (11.9–17.2)	16.8 (12.4–22.0)	18.8 (12.7–26.4)	27.0 (17.4–38.6)	18.0 (11.0–26.9)	21.7 (15.5–28.9)
Employed/studying	72.5 (71.2–73.9)	72.1 (69.2–74.8)	73.3 (71.1–75.4)	72.4 (69.0–75.7)	74.2 (68.4–79.5)	73.2 (65.0–80.4)	64.9 (52.9–75.6)	76.0 (66.4–84.0)	66.2 (58.3–73.6)

CI, confidence interval; GNB AFAB, gender nonbinary assigned female at birth; GNB AMAB, gender nonbinary assigned male at birth; SD, standard deviation.

TABLE 2. LIFETIME PREVALENCE OF SUICIDE MORBIDITY OUTCOMES AND SEXUAL ORIENTATION AND GENDER IDENTITY CHANGE EFFORTS EXPERIENCES, FOR THE TOTAL SAMPLE AND BY SEXUAL AND GENDER MINORITY GROUP (N=4160)

		Sexual and gender minority groups							
	Total sample (N=4160) % (95% CI)	*Cisgender lesbian women (n=1024) % (95% CI)*	*Cisgender gay men (n=1689) % (95% CI)*	*Cisgender bisexual women (n=722) % (95% CI)*	*Cisgender bisexual men (n=256) % (95% CI)*	*Transgender women (n=138) % (95% CI)*	*Transgender men (n=74) % (95% CI)*	*GNB AFAB (n=100) % (95% CI)*	*GNB AMAB (n=157) % (95% CI)*
ıicidal ideation	56.1 (54.5–57.6)	48.0 (44.9–51.1)	55.5 (53.1–57.9)	63.8 (60.1–67.3)	52.7 (46.4–59)	48.6 (40–57.2)	68.9 (57.1–79.2)	81.0 (71.9–88.2)	69.4 61.6–76.5)
ıicide planning	54.1 (52.6–55.6)	44.7 (41.6–47.8)	53.2 (50.7–55.6)	63.1 (59.4–66.6)	50.0 (43.7–56.3)	50.0 (41.4–58.6)	67.6 (55.7–78)	77.0 (67.5–84.8)	73.1 (65.4–79.9)
ıicide attempt	25.0 (23.7–26.4)	21.5 (19.0–24.2)	22.2 (20.2–24.3)	32.0 (28.6–35.6)	20.4 (15.6–25.9)	26.3 (19.1–34.5)	41.9 (30.5–53.9)	42.0 (32.2–52.3)	33.3 (26–41.3)
xperienced SOGICE	22.4 (21.1–23.7)	26.3 (23.5–29.2)	20.6 (18.6–22.6)	16.6 (13.9–19.6)	20.1 (15.2–25.7)	33.6 (25.7–42.2)	42.3 (30.6–54.6)	17.3 (10.4–26.3)	31.5 (24.1–39.7)
From health care providers	31.1 (28.1–34.3)	27.1 (21.7–33.0)	34.6 (29.5–40.0)	30.7 (22.4–40.0)	20.8 (10.5–35.0)	31.1 (18.2–46.6)	30.0 (14.7–49.4)	47.1 (23.0–72.2)	34.8 (21.4–50.2)
From religious leaders	48.8 (45.5–52.2)	45.5 (39.3–51.8)	50.3 (44.8–55.8)	53.5 (43.9–62.9)	58.3 (43.2–72.4)	42.2 (27.7–57.8)	53.3 (34.3–71.7)	47.1 (23.0–72.2)	39.1 (25.1–54.6)
From both sources	20.1 (17.5–22.9)	27.5 (22.1–33.4)	15.1 (11.4–19.4)	15.8 (9.6–23.8)	20.8 (10.5–35.0)	26.7 (14.6–41.9)	16.7 (5.6–34.7)	5.9 (0.1–28.7)	26.1 (14.3–41.1)

SOGICE, sexual orientation and gender identity change efforts.

TABLE 3. CHI-SQUARE TESTS FOR OMNIBUS COMPARISONS AND GOODMAN'S PROCEDURE FOR *POST HOC* ANALYSES TO IDENTIFY SIGNIFICANT DIFFERENCES BY SEXUAL AND GENDER MINORITY GROUP IN SUICIDE MORBIDITY OUTCOMES AND SEXUAL ORIENTATION AND GENDER IDENTITY CHANGE EFFORTS EXPERIENCES (N=4160)

		Suicide morbidity outcomes							
		Suicidal ideation $\chi^2=90.41$, $df=7$, $p<0.001$		*Suicide planning* $\chi^2=68.08$, $df=7$, $p<0.001$		*Suicide attempt* $\chi^2=197.05$, $df=7$, $p<0.001$		*SOGICE experiences* $\chi^2=59.83$, $df=7$, $p<0.001$	
Group 1	*Group 2*	*G1–G2*	p	*G1–G2*	p	*G1–G2*	p	*G1–G2*	p
Cisgender lesbian women (Ref.)	Cisgender gay men	−0.07	0.045	−0.08	0.011	−0.01	1.000	0.06	0.147
	Cisgender bisexual women	−0.16	<0.001	−0.18	<0.001	−0.11	0.001	0.10	0.001
	Cisgender bisexual men	−0.05	0.968	−0.05	0.944	0.01	1.000	0.06	0.730
	Transgender women	−0.01	1.000	−0.05	0.987	−0.05	0.985	−0.07	0.898
	Transgender men	−0.21	0.052	−0.23	0.023	−0.20	0.101	−0.16	0.428
	GNB AFAB	−0.33	<0.001	−0.32	<0.001	−0.20	0.024	0.09	0.683
	GNB AMAB	−0.21	<0.001	−0.28	<0.001	−0.12	0.271	−0.05	0.978
Cisgender gay men	Cisgender bisexual women	−0.08	0.041	−0.10	0.004	−0.10	0.001	0.04	0.620
	Cisgender bisexual men	0.03	0.999	0.03	0.997	0.02	1.000	0.00	1.000
	Transgender women	0.07	0.930	0.03	0.999	−0.04	0.993	−0.13	0.214
	Transgender men	−0.13	0.547	−0.14	0.462	−0.20	0.120	−0.22	0.066
	GNB AFAB	−0.26	<0.001	−0.24	<0.001	−0.20	0.031	0.03	0.999
	GNB AMAB	−0.14	0.073	−0.20	<0.001	−0.11	0.321	−0.11	0.373
Cisgender bisexual women	Cisgender bisexual men	0.11	0.227	0.13	0.070	0.12	0.044	−0.04	0.985
	Transgender women	0.15	0.146	0.13	0.330	0.06	0.963	−0.17	0.030
	Transgender men	−0.05	0.997	−0.04	0.999	−0.10	0.911	−0.26	0.011
	GNB AFAB	−0.17	0.025	−0.14	0.236	−0.10	0.822	−0.01	1.000
	GNB AMAB	−0.06	0.964	−0.10	0.507	−0.01	1.000	−0.15	0.065
Cisgender bisexual men	Transgender women	0.04	0.999	0.00	1.000	−0.06	0.975	−0.13	0.351
	Transgender men	−0.16	0.453	−0.18	0.349	−0.21	0.108	−0.22	0.102
	GNB AFAB	−0.28	<0.001	−0.27	<0.001	−0.22	0.034	0.03	1.000
	GNB AMAB	−0.17	0.101	−0.23	0.001	−0.13	0.322	−0.11	0.532
Transgender women	Transgender men	−0.20	0.266	−0.18	0.487	−0.16	0.638	−0.09	0.983
	GNB AFAB	−0.32	<0.001	−0.27	0.005	−0.16	0.492	0.16	0.296
	GNB AMAB	−0.21	0.055	−0.23	0.015	−0.07	0.972	0.02	1.000
Transgender men	GNB AFAB	−0.12	0.857	−0.09	0.966	0.00	1.000	0.25	0.081
	GNB AMAB	−0.01	1.000	−0.06	0.998	0.09	0.980	0.11	0.938
GNB AFAB	GNB AMAB	0.12	0.705	0.04	0.999	0.09	0.963	−0.14	0.448

G1, group 1; G2, group 2.

We also assessed differences in the impact of SOGICE by provider (health care professional, religious leader, compared with both sources). The analyses showed significant differences only for suicide attempts among cisgender gay men, for whom receiving SOGICE from both sources had a worse impact than receiving SOGICE from health care professionals (AOR = 1.78, $p = 0.008$) or religious leaders (AOR = 2.23, $p < 0.001$) alone.

Discussion

Our findings show that suicide morbidity among SGM adults in Colombia is higher than that of the general population, with a lifetime prevalence of 56% versus 6.5% for suicidal ideation, 54% versus 2.4% for suicide planning and 25% versus 2.6% for suicide attempt.[2] The heightened suicide risk found in this study is likely associated with the high levels of stigma and discrimination toward SGM groups, characteristic of the country's culture and its long history of violence and internal conflict.[4,5,32]

TABLE 4. PREVALENCE OF SUICIDE MORBIDITY AMONG SEXUAL AND GENDER MINORITY PEOPLE WHO DID AND DID NOT EXPERIENCE SEXUAL ORIENTATION AND GENDER IDENTITY CHANGE EFFORTS AND ADJUSTED ODDS RATIOS OF SEXUAL ORIENTATION AND GENDER IDENTITY CHANGE EFFORTS EXPERIENCES AS A PREDICTOR OF SUICIDE MORBIDITY, FOR THE TOTAL SAMPLE AND BY SEXUAL AND GENDER MINORITY GROUP (N=4160)

		Sexual and gender minority groups							
	Total sample (N=4160)	*Cisgender lesbian women (n=1024)*	*Cisgender gay men (n=1689)*	*Cisgender bisexual women (n=722)*	*Cisgender bisexual men (n=256)*	*Transgender women (n=138)*	*Transgender men (n=74)*	*GNB AFAB (n=100)*	*GNB AMAB (n=157)*
Suicidal ideation									
Experienced SOGICE %	66.4	53.5	71.7	70.2	70.8	60.0	80.0	88.2	73.9
(95% CI)	(63.1–69.5)	(47.2–59.8)	(66.5–76.5)	(60.9–78.4)	(55.9–83)	(44.3–74.3)	(61.4–92.3)	(63.6–98.5)	(58.9–85.7)
No SOGICE %	53.8	46.6	51.8	63.3	49.7	41.6	63.4	79.0	69.0
(95% CI)	(52.0–55.5)	(42.9–50.3)	(49.1–54.6)	(59.2–67.2)	(42.4–57.0)	(31.2–52.5)	(46.9–77.9)	(68.5–87.3)	(59.0–77.9)
AOR	1.69	1.28	2.31	1.18	3.13	1.93	2.21	1.42	1.14
(95% CI)	(1.43–1.99)	(0.95–1.74)	(1.76–3.03)	(0.75–1.86)	(1.47–6.68)	(0.85–4.39)	(0.59–8.26)	(0.27–7.54)	(0.5–2.63)
Suicide planning									
Experienced SOGICE %	62.6	50.4	65.1	70.2	66.7	62.2	76.7	82.4	73.9
(95% CI)	(59.4–65.8)	(44.1–56.7)	(59.7–70.2)	(60.9–78.4)	(51.6–79.6)	(46.5–76.2)	(57.7–90.1)	(56.6–96.2)	(58.9–85.7)
No SOGICE %	52.0	43.0	50.4	62.0	46.8	41.6	63.4	75.3	74.0
(95% CI)	(50.2–53.8)	(39.3–46.7)	(47.7–53.2)	(57.9–66.0)	(39.6–54.2)	(31.2–52.5)	(46.9–77.9)	(64.5–84.2)	(64.3–82.3)
AOR	1.55	1.29	1.82	1.26	3.01	2.24	1.78	1.05	1.01
(95% CI)	(1.32–1.83)	(0.95–1.76)	(1.4–2.36)	(0.8–1.98)	(1.42–6.38)	(1–5.02)	(0.54–5.83)	(0.26–4.24)	(0.43–2.38)
Suicide attempt									
Experienced SOGICE %	33.8	28.2	32.8	39.5	35.4	35.6	46.7	58.8	37.0
(95% CI)	(30.7–37.0)	(22.8–34.2)	(27.8–38.2)	(30.4–49.1)	(22.2–50.5)	(21.9–51.2)	(28.3–65.7)	(32.9–81.6)	(23.2–52.5)
No SOGICE %	22.3	18.9	19.2	30.8	17.3	21.6	36.6	38.3	29.0
(95% CI)	(20.9–23.9)	(16.1–22.0)	(17.1–21.5)	(27.1–34.8)	(12.2–23.4)	(13.5–31.6)	(22.1–53.1)	(27.7–49.7)	(20.4–38.9)
AOR	1.76	1.62	2.01	1.33	2.87	2.24	1.46	1.78	1.32
(95% CI)	(1.49–2.09)	(1.14–2.31)	(1.52–2.65)	(0.86–2.07)	(1.38–5.98)	(0.92–5.46)	(0.5–4.27)	(0.59–5.38)	(0.62–2.85)

AOR for which the 95% CI does not include 0 are statistically significant at $p<0.05$.
AOR, adjusted odds ratios; adjusted for age, education, and employment.

We examined one such stressor—exposure to SOGICE—and showed that it increases risk for suicide behavior among SGM adults. Although there are several laws that protect SGM groups in Colombia, this favorable legal background is not extended to the day-to-day lives of SGM Colombians.[32] On May 17, 2012, in celebration of the International Day against Homophobia, the Pan-American Health Organization released a technical position statement describing SOGICE practices as unnecessary, ineffective, harmful, and ethically unacceptable, and urging governments and professional associations in the region to rule against these practices.[33] In Colombia, unfortunately, there is no regulation of SOGICE practices. We found that 22% of the sample reported ever experiencing SOGICE, which is higher than in U.S.-based studies with sexual minority adults (7%),[21] gender minority adults (14%),[22,34] and SGM young adults (3.3%).[23] Our study adds to the limited evidence documenting the deleterious impact of SOGICE experiences on the mental health of SGM people. Similar to recent studies in the United States,[21–23,34] exposure to SOGICE in our sample was significantly associated with suicide morbidity, even after adjustment for demographic factors. Consistent with the minority stress model, our findings suggest that SOGICE experiences are an SGM-specific stressor associated with heightened suicide risk.[7,19,20]

This is the first study to assess the differential impact of SOGICE experiences on suicide morbidity across SGM groups. In many instances, studies subsume participants into a single group (e.g., LGBT). This study reports on the largest survey of SGM adults in Colombia to date. A strong contribution of our study is that the way we assessed gender identity and sexual orientation, as well as the large sample size, allowed us to examine these groups separately, and to include GNB AFAB and AMAB individuals, who have been rarely included in previous research.

Our results show that suicide morbidity is not equally distributed across SGM groups, with GNB individuals (regardless of sex assigned at birth) and transgender men being the most at-risk groups. In addition, the prevalence of SOGICE experiences varied significantly across groups, ranging from 17% among cisgender bisexual women and GNB AFAB participants, to 34% among transgender women and 42% among transgender men. Regarding the link between SOGICE experiences and suicide morbidity, we found that the deleterious impact of SOGICE experiences was stronger for cisgender sexual minority men. Although gay and bisexual cisgender men in this sample were not more likely than other groups to experience SOGICE, it is possible that the hegemonic masculinity in Colombian culture makes SOGICE efforts particularly insidious for cisgender men. Further qualitative and mixed-methods research in this area can help clarify the differential mechanisms through which SOGICE experiences impact mental health for different SGM groups.

Limitations

There are some limitations of the current study. The study used a nonprobability sample of SGM adults and is cross-sectional. However, given that no other national data exist to assess suicidality among Colombian SGM groups, this study represents a first attempt to learn about this population in a large national study.

Because we did not ask about the timing of SOGICE experiences and indicators of suicide morbidity, it is not possible to establish their temporal order. Although it is likely that experiencing SOGICE increases suicide morbidity, it is also possible that suicidality among SGM individuals can

lead parents or individuals to seek SOGICE procedures. Previous longitudinal research has found that victimization due to sexual minority status predicted depression and suicidality among youth in the United States.[35] Although we did not find any longitudinal research specifically regarding SOGICE as a minority stressor, an analysis of the 2015 U.S. Transgender Survey indicated that childhood exposure to gender identity change efforts (before the age of 10 years) was associated with a two-fold increase in suicide morbidity in the last 12 months, thus suggesting that SOGICE experiences can temporally precede suicide morbidity.[22] Longitudinal studies or studies assuming a life-history approach would be useful to clarify the causal links between SOGICE and suicidality among SGM individuals.

The SOGICE measure used in this study also has some limitations. First, the definition of SOGICE may encompass a wide variety of change efforts, ranging from prayer to shock therapies,[21,36] as well as variation in frequency, duration, and voluntariness. Our measure of SOGICE is limited in that it does not differentiate among these various characteristics. It is likely that these characteristics have a differential impact on the mental health of SGM people. For instance, our analyses by source indicated that, among cisgender gay men, receiving SOGICE from both health care professionals and religious leaders was associated with a higher risk of suicide attempts, compared with receiving SOGICE from a single source. Thus, further research is needed to understand how variability in SOGICE experiences impacts suicide morbidity among SGM groups. A second limitation of the SOGICE measure is that it does not include questions about experiences with efforts aiming at changing gender identity among GNB participants or changing sexual orientation among transgender participants. Future studies should inquire about both types of experiences.[23]

Lastly, although we achieved representation from all SGM groups, and were able to have large enough samples of transgender and GNB people to facilitate analysis stratified by sex assigned at birth, these groups were smaller compared with those of cisgender LGB participants, which was associated with less precision in our estimates. Future research focusing particularly on transgender and GNB people is sorely needed, because these groups are less frequently included as participants in research or are subsumed with other populations (e.g., LGBT), thus limiting our knowledge about their specific health needs.

Conclusion

These limitations notwithstanding, the present study has important implications. First, the study points to high rates of suicidal ideation, suicide planning, and suicide attempts among Colombian SGM people, with rates that are 8–22 times higher than in the general population.[2] This concerning trend requires surveillance and intervention by Colombian national and regional health authorities. Further, the study evidences that SOGICE practices are common in Colombia and are associated with increased risk for suicide morbidity for all SGM groups. Findings from this study highlight the need to design and implement policies to change attitudes toward sexual orientation and gender identity diversity, and to ban SOGICE practices in Colombia and elsewhere. Finally, the study shows that the prevalence of suicide morbidity and of SOGICE experiences varied greatly across different SGM groups. Moreover, the link between SOGICE and suicide morbidity was particularly strong among cisgender sexual minority men. These findings highlight the importance of

recognizing the variability within SGM groups and the need to examine these groups separately rather than treating them as a monolithic group.

Authors' Contributions

A.M.d.R.-G. originated the article, conducted statistical analysis, interpretation, write-up, and revisions. M.C.Z. contributed to the interpretation, write-up, and revisions. J.F.-D. and P.T.-S. contributed to measures translation, data collection, and management. D.A.-L., E.A.G.-M., and P.A.G.-R. contributed to the drafting of the original article. I.H.M. designed the study and oversaw data collection. He reviewed, wrote, and edited drafts of the article. All of the authors reviewed and approved this article before submission.

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