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Sexual Orientation and Gender Identity and Expression Change Efforts and Suicidality: Evidence, Challenges, and Future Research Directions

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Abstract

Sexual orientation and gender identity and expression change efforts (SOGIECE) aim to deny or suppress nonheterosexual and transgender identities. SOGIECE, including ''conversion practices,'' are controversial and remain prevalent despite contemporary legislative bans and denouncement of these harmful practices from numerous health profession organizations. Recent work has questioned the validity of epidemiological studies associating SOGIECE with suicidal thoughts and suicide attempts. This perspective article addresses such critiques, arguing that the balance of available evidence indicates SOGIECE contribute to suicidality, while proposing methods to better account for structural context and the multitude of factors that may explain both SOGIECE attendance and suicidality.

Keywords: conversion therapy, inequities, mental health, sexual and gender minorities, sexual orientation and gender identity and expression change efforts, suicide

Introduction

Sexual orientation and gender identity and expression change efforts (SOGIECE) aim to deny or suppress feelings of sexual attraction to people of the same gender, as well as gender expressions and identities that do not align with one's gender/sex assigned at birth.[1] SOGIECE broadly seek to deter people from adopting or expressing nonheterosexual and transgender identities, with ''conversion practices'' typically referring to organized efforts by professionals or para-professionals.[2] Despite opposition from lesbian, gay, bisexual, transgender, and other queer (LGBTQ+) communities and allies globally, including numerous health profession organizations,[3] SOGIECE remain prevalent and continue to undermine LGBTQ+ people's opportunities for health and well-being.[4]

Our interdisciplinary research team has studied SOGIECE and their impacts at length.[1–3,5,6] Informed by this work, and in line with contemporary legislative bans,[4] we denounce SOGIECE due to their ethical implications and evidence on the lack of benefits (e.g., mental health gains, ''effectiveness'') and significant psychosocial harms, including suicidality (encompassing suicidal thoughts and suicide attempts).

Some proponents of SOGIECE argue that studies identifying harms are flawed and that people who wish to take part in SOGIECE should be free to do so, as is summarized elsewhere.[3,4] This ''patient rights'' stance is problematic, above all because LGBTQ+ people are often under interpersonal or societal pressure when entering—or being entered into—SOGIECE due to cisheterosexism—a dominant ideology that favors cisgender and heterosexual identities and

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experiences.[5] Related to this, an American Psychological Association Task Force surmised that debate surrounding SOGIECE is ''mired in ideological disputes and competing political agendas.''[7]

Although this statement is now over a decade old, legal and political battles related to SOGIECE, their harms, and associated policy responses persist today.[3] In this context, some have cast doubt on associations between SOGIECE and suicidality,[8–10] characterizing such links as a ''false research narrative.''[9] This perspective article addresses such critiques while arguing that the balance of available evidence supports an inference of psychological harm from SOGIECE. We also outline methods for further examining this timely LGBTQ+ health issue.

(Re)Characterizing the Evidence on SOGIECE and Suicidality

There is a robust and growing body of literature demonstrating associations between SOGIECE and suicidality. Blosnich et al.'s[11] analysis of data from *Generations*—a study of a nationally representative sample of sexual minority adults in the United States, 2016–2018—found SOGIECE exposure to be associated with higher odds of lifetime suicide ideation, planning, and attempt. Similar insights were drawn in Salway et al.'s 2020 study,[1] which used data from *SexNow,* a cross-sectional nonprobability survey of $N = 8388$ sexual minority men in Canada.

Salway et al. identified that sexual minority men with exposure to SOGIECE had 1.42 (95% CI: 1.31–1.53) times the risk of having ever experienced suicide ideation, along with 2.49 (95% CI: 2.07–2.99) times the risk of having ever attempted suicide compared with those without exposure to SOGIECE.[1] Findings of this nature are substantiated in other quantitative analyses,[12–14] qualitative studies,[6,15,16] and knowledge syntheses.[17] Together, this literature offers clear and compelling evidence of SOGIECE's suicide-related and broader health and social harms.

There remain opportunities to assess more fulsomely the temporality between suicide-related outcomes and different kinds of potentially relevant and interrelated exposures. For example, some[8–10] have criticized existing studies for not timing the occurrence of SOGIECE in relation to suicidality, thereby rendering it difficult to draw conclusions about causality. More specifically, proponents claim that LGBTQ+ health researchers have been guilty of reporting an ''association of SOCE [sexual orientation change efforts] with suicidality as if the former caused the latter, without examining the possibility that the suicidality may have preceded recourse to **[conversion]** therapy.''[10; bolded text ours]

To assess the validity of the assumptions in such critiques, we have produced a directed acyclic graph (DAG) that models the relationship between pre-SOGIECE suicidality and post-SOGIECE suicidality (Fig. 1). DAGs graph assumed causal relations between variables and identify potential covariate adjustment sets required to correct potential sources of bias.[18] Ours includes the assumption that suicide ideation or behavior (C3) may have preceded both SOGIECE attendance (the exposure) and subsequent suicidality (outcome).

We expand this DAG to include variables that precede both SOGIECE exposure and pre-SOGIECE suicidality: structural cisheterosexism external to the individual (C1)[19] and minority stressors such as internalized shame related to sexual orientation and gender identity, identity-based family and peer rejection, and lack of affirming resources (C2).[2,20,21] Of note, this DAG is intended only as an

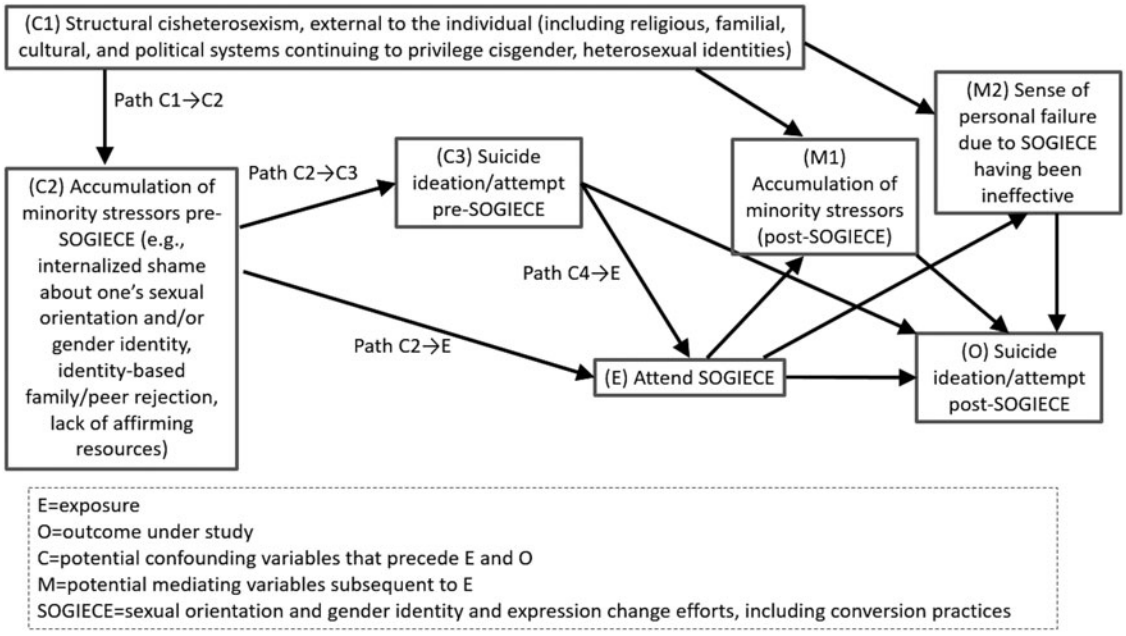

FIG. 1. Hypothesized associations between structural cisheterosexism, SOGIECE, and suicide ideation/attempt at various time points. C, potential confounding variables that precede E and O; E, exposure; M, potential mediating variables subsequent to E; O, outcome under study; SOGIECE, sexual orientation and gender identity and expression change efforts, including conversion practices.

Table 1. *SexNow* Survey Items Pertaining to Sexual Orientation and Gender Identity and Expression Change Efforts and Suicidality, from a Study by Salway et al., 2020

Survey question	*Response options*
Have you ever attended sexual repair/reorientation counseling?	''No,'' ''some time ago,'' ''last 12 months,'' and ''both prior to and last 12 months''
Have you ever felt troubled by suicide: thought about suicide; attempted suicide?[a]	

[a]Any ''yes'' response options were coded as having ever thought about or attempted suicide.
Source: Salway et al.[1]

illustrative example and does not represent the myriad effects of cisheterosexism on suicidality, SOGIECE, and other health outcomes for LGBTQ+ people.

Our evidence-informed view is that LGBTQ+ people who are exposed to times and places with prevalent structural cisheterosexism will develop a greater sense of internalized stigma (path C1→C2), making them more likely to attend (or be coerced into) SOGIECE, in an attempt to resolve the distress they experience (path C2→E). This view recognizes that SOGIECE is fundamentally a structural issue, as are many of the associated consequences, including suicidality. Indeed, we argue not only that suicidality may drive individuals' pathways into SOGIECE, but also that pre-SOGIECE suicidality is rooted in the same set of contextual influences and inequities that may increase one's susceptibility to SOGIECE. This structural context must be carefully considered and accounted for in research into SOGIECE and related harms.

To be truly structurally responsive, research into SOGIECE must also recognize that the effects of structural cisheterosexism span the life course. Hence, we note a pathway from C1 to a mediating variable (M1) representing the accumulation of minority stressors, including SOGIECE and anti-LGBTQ+ stressors experienced following SOGIECE.[19,21,22] This mediating variable also contributes to post-SOGIECE suicide ideation/attempts (O). As another example, structural cisheterosexism (C1) combined with the unfounded promise of SOGIECE could lead to LGBTQ+ people to have a sense of personal failure (M2) due to SOGIECE having been ineffective.

Internalization of failure with respect to changing something as deep and personal as identity—particularly when this identity is marginalized—can reasonably also contribute to suicidality (O).[6,23,24] Considering suicidogenic factors such as M1 and M2, the minimal sufficient adjustment set for estimating the total effect of E on O includes not only pre-SOGIECE suicidality (C3) but also a measure (or proxy) of external sources of cisheterosexism (C1) that will likely exert an effect on suicidality before and after SOGIECE. This adjustment could help to elucidate the structural nature of these issues and may also shed light on how circular or episodic sequelae between minority stressors, suicidality, and SOGIECE interact across the life course.

The critique of researchers not attempting to determine the extent to which suicidality may precede and thus not be attributable to SOGIECE falls short for several reasons. Although it is true that people experiencing suicidality may be more likely to seek and/or be sent to SOGIECE (e.g., in the hopes of obtaining help; out of desperation), this does not obviate the risk of suicidality being exacerbated in and following SOGIECE, as we have documented.[6] Moreover, SOGIECE are rarely isolated nor discrete phenomena; rather, SOGIECE tend to surface, resurface, and be drawn out across time and contexts.[25,26]

Indeed, our qualitative study found that SOGIECE can go on for years, decades even.[2] This is echoed in a study by Flentje et al.,[27] showing that people exposed to SOGIECE had, on average, experienced three SOGIECE ''episodes,'' each lasting up to 4.5 years. Likewise, Spitzer[28] identified a mean duration of 4.7 years for SOGIECE exposures, whereas Salway et al. found that nearly a third of people who experienced SOGIECE had done so across more than five attempts.[1] Related to this, we note that drawing responsible conclusions about time order with respect to SOGIECE and suicidality requires information about both the ''start'' and ''end'' times for each of these variables—an issue that is explained in detail by others.[25,26] Herein, we also emphasize the significant variation in how SOGIECE and exposure to such practices are defined in community and scholarship.[2,17] Future work would benefit from using clear and consistent definitions of SOGIECE exposure to minimize potential measurement error.

The *SexNow* SOGIECE study[1] by Salway et al. included data specifying the timing of individuals' most recent exposure to SOGIECE and suicidality (see Table 1 for the survey item), though we cannot accurately glean from this information when these issues were *first* experienced, or for how long. This is a key consideration given that, as already highlighted, SOGIECE are routinely experienced over extended periods of time, as are their impacts.[2,6] Indeed, having information about the timing and duration of initial exposure to these practices is fundamental to conducting robust time-series analyses of suicidality and SOGIECE.

Table 2. Reanalysis of *SexNow* Data on Sexual Orientation and Gender Identity and Expression Change Efforts and Suicidality, Adjusted for Past 12 Months Suicide Attempts

Model	*OR (95% CI) for associations between SOGIECE and past 12 months suicide attempts*
Unadjusted	4.14 (95% CI 2.52–6.81)
Adjusted for past (>12 months) suicide attempts	2.29 (95% CI 1.34–3.88)
Adjusted for past (>12 months) suicide attempts, age, race, education, and income	2.34 (95% CI 1.36–4.02)

CI, confidence interval; OR, odds ratio.

Still, working with the data available to us, we reanalyzed SOGIECE data from *SexNow*,[1] finding that the odds of having attempted suicide in the 12 months preceding survey completion remains elevated and statistically significant (Table 2), even after adjustment for suicide attempts that occurred >12 months ago. Approval to (re)analyze *SexNow* data was obtained by the independent research ethics board of the Community-Based Research Centre in Vancouver, Canada.[1]

That issues of SOGIECE and suicidality interact and repeat chronically throughout an individual's life adds much complexity to the question on which SOGIECE proponents (over)focus: ''*Which came first, SOGIECE or suicidality?*'' In this context, methodological improvements such as the accurate and time-sensitive measurement of SOGIECE exposures and pertinent outcomes could support approximations of causal inference.[26] Still, research addressing harms of SOGIECE must adhere to the precautionary principle. On balance, the demonstrated harms associated with SOGIECE are concerning and warrant restrictions on these practices.

Conclusion

SOGIECE are among the most pressing health and social issues affecting LGBTQ+ people. Although we have not yet brought an end to SOGIECE, there has been critical progress toward redressing and preventing the harms of these practices. As with all substantive areas, however, we must continue building a policy- and practice-relevant evidence base that is committed to the scientific method and that extends and challenges—rather than only confirms or responds to—researchers' biases and existing hypotheses.

Thus, it may be prudent to design and conduct studies that can further account for structural cisheterosexism, temporality, and causality in trajectories of SOGIECE and suicidality as we seek to better delineate these issues and the ways in which they intersect, while informing appropriate intervention responses. This should include studies presenting multivariable adjustment for the range of factors that may explain both SOGIECE attendance *and* suicide attempts. Notwithstanding opportunities for further research, we underscore that ample evidence exists to suggest that SOGIECE are harmful and contribute to suicidality. This is a conclusion by which we stand firmly as a matter of precautionary principle, as well as equity for LGBTQ+ people, including those who experience(d) SOGIECE.

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Authors' Contributions

T.G. and T.S. led the conceptualization of this perspective article. T.G. led writing—original draft and review and editing. T.S. directed project administration, led data analysis, and contributed to writing—original draft. J.A.D.-R., F.A., and R.K. contributed to article conceptualization and writing—review and editing. All authors read and agreed to the final version of the article.

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References

1. Salway T, Ferlatte O, Gesink D, et al. Prevalence of exposure to sexual orientation change efforts and associated sociodemographic characteristics and psychosocial health outcomes among Canadian sexual minority men. Can J Psychiatry 2020;65(7):502–509; doi: 10.1177/0706743720902629
2. Kinitz DJ, Goodyear T, Dromer E, et al. ''Conversion therapy'' experiences in their social contexts: A qualitative study of sexual orientation and gender identity and expression change efforts in Canada. Can J Psychiatry 2022; 67(6):441–451; doi: 10.1177/07067437211030498
3. Ashley F. Banning Transgender Conversion Practices: A Legal and Policy Analysis. UBC Press: Vancouver, BC, USA; 2022.
4. Bishop A. Harmful Treatment: The Global Reach of So-Called Conversion Therapy. OutRight Action International: New York, NY, USA; 2019.
5. Salway T, Ashley F. Ridding Canadian medicine of conversion therapy. Can Med Assoc J 2022;194(1):E17–E18; doi: 10.1503/cmaj.211709
6. Goodyear T, Kinitz DJ, Dromer E, et al. ''They want you to kill your inner queer but somehow leave the human alive'': Delineating the impacts of sexual orientation and gender identity and expression change efforts. J Sex Res 2022; 59(5):1–11; 599–609; doi: 10.1080/00224499.2021.1910616
7. American Psychological Association—Task Force on Appropriate Therapeutic Responses to Sexual Orientation. Report of the American Psychological Association Task Force on Appropriate Therapeutic Responses to Sexual Orientation. American Psychological Association: Washington, DC, USA; 2009.
8. Rosik CH. A critical review of 2020 research on harms from efforts to change sexual attractions and behaviors: Minimal advancement of science, maximal advancement of agendas. J Hum Sexuality 2020;11;1–22.
9. Sullins DP. Sexual orientation change efforts do not increase suicide: Correcting a false research narrative. Arch Sex Behav 2022;51(7):3377–3393, doi: 10.1007/s10508-022-02408-2
10. Sullins DP. Absence of behavioral harm following non-efficacious sexual orientation change efforts: A retrospective study of United States sexual minority adults, 2016-2018. Front Psychol 2022;13:823647; doi: 10.3389/fpsyg.2022.823647
11. Blosnich JR, Henderson ER, Coulter RWS, et al. Sexual orientation change efforts, adverse childhood experiences, and suicide ideation and attempt among sexual minority adults, United States, 2016–2018. Am J Public Health 2020;110(7): e1–e1030; doi: 10.2105/AJPH.2020.305637
12. Jones T, Power J, Hill AO, et al. Religious conversion practices and LGBTQA +youth. Sex Res Soc Policy 2022;19(3): 1155–1164; doi: 10.1007/s13178-021-00615-5
13. Del Río-González AM, Zea MC, Flórez-Donado J, et al. Sexual orientation and gender identity change efforts and suicide morbidity among sexual and gender minority adults in Colombia. LGBT Health 2021;8(7):463–472; doi: 10.1089/lgbt.2020.0490

14. Green AE, Price-Feeney M, Dorison SH, et al. Self-reported conversion efforts and suicidality among US LGBTQ youths and young adults, 2018. Am J Public Health 2020; 110(8):1221–1227; doi: 10.2105/AJPH.2020.305701
15. Shidlo A, Schroeder M. Changing sexual orientation: A consumers' report. Prof Psychol Res Pr 2002;33(3):249–259; doi: 10.1037/0735-7028.33.3.249
16. Jones T, Power J, Jones TW, et al. Supporting LGBTQA+ peoples' recovery from sexual orientation and gender identity and expression change efforts. Aust Psychol 2022;57(6): 359–372; doi: 10.1080/00050067.2022.2093623
17. Forsythe A, Pick C, Tremblay G, et al. Humanistic and economic burden of conversion therapy among LGBTQ youths in the United States. JAMA Pediatr 2022;176(5):493–501; doi: 10.1001/jamapediatrics.2022.0042
18. Lipsky AM, Greenland S. Causal directed acyclic graphs. JAMA 2022;327(11):1083–1084; doi: 10.1001/jama.2022.1816
19. Krieger N. Measures of racism, sexism, heterosexism, and gender binarism for health equity research: From structural injustice to embodied harm—An ecosocial analysis. Annu Rev Public Health 2020;41(1):37–62; doi: 10.1146/annurev-publhealth-040119-094017
20. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. Psychol Bull 2003;129(5):674–697; doi: 10.1037/0033-2909.129.5.674
21. Hendricks ML. Minority stress and change efforts. In: The Case Against Conversion ''Therapy'': Evidence, Ethics, and Alternatives. (Haldeman DC. ed.) American Psychological Association: Washington, DC, USA; 2022; pp. 71–88.
22. Hatzenbuehler ML, Nolen-Hoeksema S, Dovidio J. How does stigma ''get under the skin''? The mediating role of emotion regulation. Psychol Sci 2009;20(10):1282–1289; doi: 10.1111/j.1467-9280.2009.02441.x
23. Haldeman DC. Gay rights, patient fights: The implications of sexual orientation conversion therapy. Prof Psychol Res Pract 2002;33(3):260–264; doi: 10.1037/0735-7028.33.3.260
24. Beckstead AL, Morrow SL. Mormon clients' experiences of conversion therapy: The need for a new treatment approach. Couns Psychologist 2004;32(5):651–690; doi: 10.1177/0011000004267555
25. Meyer IH, Blosnich JR. Commentary: Absence of behavioral harm following non-efficacious sexual orientation change efforts: A retrospective study of United States sexual minority adults, 2016–2018. Front Psychol 2022;13; 997513; doi: 10.3389/fpsyg.2022.997513
26. Blosnich JR, Coulter RWS, Henderson ER, et al. Correcting a false research narrative: A commentary on Sullins (2022). Arch Sex Behav 2023, doi: 10.1007/s10508-022-02521-2
27. Flentje A, Heck NC, Cochran BN. Sexual reorientation therapy interventions: Perspectives of ex-ex-gay individuals. J Gay Lesbian Ment Health 2013;17(3):256–277; doi: 10.1080/19359705.2013.773268
28. Spitzer RL. Can some gay men and lesbians change their sexual orientation? 200 participants reporting a change from homosexual to heterosexual orientation. Arch Sex Behav 2003; 32(5):403–417; doi: 10.1023/A:1025647527010

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