McMaster University | HEALTH FORUM

Rapid Synthesis

Health impacts of sexual orientation, gender identity, gender expression change efforts, and so-called "conversion therapy" on 2SLGBTQI+ populations

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Context

- Sexual orientation and gender identity and expression change efforts (SOGIECE) refer to any "attempts to repress, discourage or change a person's sexual orientation, gender identity or gender expression."(1)
- Although the term SOGIECE has a broader scope, the literature also reported separately gender identity change efforts (GICE) and sexual orientation change efforts (SOCE),(2) and all these practices can range from covert and informal practices to more formalized practices like so-called "conversion therapy."(1)
- The American Psychiatric Association removed "homosexuality" from the Diagnostic and Statistical Manual in 1973, but only opposed SOCE in 2000.(3)
- Although the American Psychological Association (APA) has been opposed to SOCE since 1997, it was not until 2021 that it produced a similar statement for GICE.(3)
- Despite the criminalization of "conversion therapy" practices (CTP) in Canada in 2021 through Bill C-4,(4) the prevalence of exposure to SOGIECE and CTP remains high among sexual and gender minority populations.(5)
- SOGIECE has severe life course and intergenerational impacts on the physical and mental health of survivors.
  - For example, 2SLGBTQI+ populations who are exposed to these practices may experience poorer health outcomes due to weathering lifetime exposure to stigma and increased suicide, depression, and anxiety.(6)
  - Moreover, intergenerational impacts of SOGIECE (i.e., given different experiences and availability of supports between older and younger generations of 2SLGBTQI+ people) are likely to differ and require approaches to support that differ between generations.
- Prevalence rates for lifetime exposure to SOGIECE vary across age cohorts, sex, gender, sexual orientation, race, and between immigrants and non-immigrants, and there are limited supports available for SOGIECE/CTP survivors.(7)
- 2SLGBTQI+ public health data and evidence remain scarce and limited by small sample sizes, yet the need for evidence is becoming more urgent given that 2SLGBTQI+ communities in Canada and abroad are increasingly at risk in the current social and political climate, where efforts to curb the human rights of 2SLGBTQI+ people are escalating, and they face persistent stigmatization and maltreatment.(8)
- This review aims to provide evidence to support the protection and promotion of 2SLGBTQI+ populations' health and well-being in Canada and will help inform policy advice and promising programs to mitigate the impact of stigma and discrimination.

Question

- What is known from the best available evidence about the health impacts of sexual orientation, gender identity, and gender expression change efforts (SOGIECE), including so-called "conversion therapy," on 2SLGBTQI+ populations across the life course and between generational cohorts in Canada?

High-level summary of key findings

- We identified 47 evidence documents relevant to the question, which included five evidence syntheses and 42 single studies. Of the 42 single studies there were two cohort studies, 23 cross-sectional studies, 11 qualitative studies, and six old studies published between 1960 and 1974 (two controlled trials, one cross-sectional study, and three case series) that we excluded given that the context in the time period they were conducted differs significantly from the present.
- The included studies were conducted in 10 countries, including the U.S. (n=21), Canada (n=5), Australia (n=2), the U.K. (n=2), and one for each of Brazil, Colombia, Hong Kong, New Zealand, Nigeria, and South Korea.
- The age at the first SOGIECE experience was found to be under 18 (n=13 studies), between 18–29 years old (n=8 studies), and over 30 years old (n=7 studies).
- The duration of SOGIECE was variable, ranging from four weeks to 17 years.
- In 15 studies SOGIECE was delivered by different providers, including licensed and non-licensed healthcare providers, religious leaders and faith-based organizations.
  - In three studies it was exclusively delivered by religious leaders or faith-based organizations, and in five studies it was exclusively delivered by healthcare practitioners.
- The prevalence of SOGIECE in samples of 2SLGBTQ+ populations was estimated for Australia (1.3%), South Korea (2.5%), New Zealand (3.1%), southern U.S. (7.6%), Nigeria (17%), Canada (20.6%), Hong Kong (21.9%), and Colombia (22.4%).
  - Note that differences among countries might be related to differences in their socio-political contexts as well as differences in the methodology of the studies and the populations included.
- The included studies found that SOGIECE for 2SLGBTQI+ people was associated with:
  - an increased risk of non-suicidal self-injury (47% increased risk)
  - an increased risk of suicidal ideation (40% to 119% more risk)
  - an increased risk of planning suicide (55% to 156% more risk)

Box 1: Approach and supporting materials

At the beginning of each rapid synthesis and through its development, we engage a subject matter expert who helps us to scope the question and ensure relevant context is taken into account in the summary of the evidence.

We identified evidence addressing the question by searching Health Systems Evidence, Cochrane Library, and PubMed. All searches were conducted on 5 February 2024. The search strategies used are included in Appendix 1.

In contrast to our rapid evidence profiles, which provides an overview and insights from relevant documents, this rapid synthesis provides an in-depth understanding of the evidence.

We appraised the methodological quality of evidence syntheses that were deemed to be highly relevant using AMSTAR. Note that quality appraisal scores for evidence syntheses such as rapid syntheses/reviews are often lower because of the methodological shortcuts that need to be taken to accommodate compressed timeframes. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents an evidence synthesis of the highest quality. It is important to note that the AMSTAR tool was developed to assess evidence syntheses focused on clinical interventions, so not all criteria apply to evidence syntheses pertaining to delivery, financial, or governance arrangements within health systems or to broader social systems.

This rapid synthesis was prepared in a 30-business-day timeline.

A separate appendix document includes:
1) methodological details (Appendix 1)
2) details about each identified evidence synthesis (Appendix 2)
3) details about each identified single study (Appendix 3)
4) documents excluded at the final stages of reviewing (Appendix 4).

***Disclaimer: Some of the language in the appendices may be deemed offensive or harmful to some readers. The language has been kept to accurately reflect how the data were collected and interpreted in the original studies.**

    - an increased risk of suicide attempts (76% to 332% more risk).
- Three studies that assessed SOGIECE delivered by religious institutions reported that this intervention decreased self-esteem, increased self-shame, depression, and anxiety, and increased distance from God and the church, worsened family relationships, and was perceived as a waste of time and money.
- Qualitative research showed that people with lived experiences of SOGIECE indicated that these approaches created a sense of 'brokenness,' negatively impacted how individuals view themselves and their relationships with those around them, impaired mental health and well-being, and significantly delayed their adoption of narratives that affirm their sexual and gender identities and promote positive development.
- Some religious participants reported experiencing severe spiritual harm, such as moral injury and religious trauma.
- One medium-quality evidence synthesis that included 16 studies that were conducted after 2015 (n=12), between 2011–2012 (n=1), and between 2002–2003 (n=1) (two studies did not report their study period) found that the prevalence of SOGIECE was greater among transgender subgroups compared to cisgender subgroups; greater among people assigned male at birth, whether transgender or cisgender, as compared to people assigned female at birth; and greater among Indigenous and other racial minorities compared to white groups.
- One medium-quality evidence synthesis and economic evaluation in the U.S. reported that 2SLGBTQI+ individuals who underwent SOGIECE:
    - faced an estimated additional $97,985 lifetime costs per individual as compared to those who did not undergo SOGIECE
    - had 1.61 quality-adjusted life years (QALYs) lost as compared to those who did not undergo SOGIECE.
- The same evidence synthesis also found that affirmative therapy yielded cost savings of $40,329 USD with 0.93 QALYs gained versus no intervention.
- From a population perspective, SOGIECE translated to total costs of $650 million USD in 2021, with harms associated with an estimated economic burden of $9.23 billion USD.

Framework to organize what we looked for

- 2SLGBTQI+ group(s) affected
    - Two Spirit
    - Lesbian
    - Gay
    - Bisexual
    - Transgender
    - Queer/questioning
    - Intersex
- Other priority groups affected
    - Gender modality
        - Cisgender men
        - Cisgender women
        - Transgender men and women
        - Non-binary
    - Immigrants and refugees
    - Indigenous peoples
    - BIPOC communities
    - Age groups/generations
        - Elder adults (75+)
        - Older adults (60–75)
        - 30–59

        - Young adults (18–29)
        - Under 18
    - People living in rural/remote communities
- Age at first SOGIECE/conversion therapy
    - Under 18
    - 18–29
    - 30 or older
- SOGIECE intervention/practice used
    - Exclusively targeting sexual orientation
    - Exclusively targeting gender identity
    - Targeting both sexual orientation and gender identity
    - Other
- Source of SOGIECE intervention/practice
    - Licensed healthcare practitioner
    - Unlicensed healthcare practitioner
    - Camp
    - Faith-based organization
    - Individual religious leader
    - Faith community member
    - Family member(s)
    - School
    - Community-based program (e.g., clubs, sports teams)
    - Other
- Comparison therapy
    - No therapy
    - Affirmative therapy
    - Another intervention
- Duration of SOGIECE
    - Description
- SOGIECE attempts
    - Description
- Outcomes
    - Health outcomes
        - Access to mental health services
        - Anxiety or severe psychological distress
        - Depression
        - Alcohol use disorder
        - Substance use
        - Suicide ideation or attempt
        - Death by suicide
        - Unintended pregnancies
        - sexually transmitted and blood-borne infections (STBBI)
        - Victimization (e.g., cybervictimization, exposure to violence, hate crimes, bullying)
        - Debut of sexual behaviour?
    - Costs (e.g., healthcare costs, economic burden, costs accrued by SOGIECE survivors)
    - Experiences of 2SLGBTQI+ people (e.g., narratives, accounts, process of exposure and its outcomes)
    - Social outcomes (e.g., connection/belonging with the broader 2SLGBTQI+ community, school connectedness, community involvement)

What we found

We identified 47 evidence documents relevant to the question, of which 42 were single studies, and five were evidence syntheses.(6; 7; 9-11) Six of the 42 single studies were published between 1964 and 1972 and are summarized in a separate section given that they belong to a different socio-political and historical context.(12-17) The other 36 single studies were published between 1995 and 2009 (n=4), 2010 and 2019 (n=10), and 2020 and 2023 (n=22), and were conducted in 10 countries: the U.S. (n=21), (3; 6; 18-36) Canada (n=5),(5; 37-40) Australia (n=2),(41; 42) the U.K. (n=2),(43; 44) and one for each of Brazil,(45) Colombia,(46) Hong Kong,(2) New Zealand,(47) Nigeria,(48) and South Korea.(49) The study designs were cohort (n=2),(22; 24) cross-sectional (n=23),(2; 3; 5; 11; 20; 26-36; 39; 45-50) and qualitative research (n=11).(18; 19; 21; 23; 25; 37; 39-41; 43; 44)

Prevalence of SOGIECE and how varied across generations

Estimations of the prevalence of SOGIECE and its variants (i.e., only SOCE, only GICE, only conversion therapy) were variable. In cross-sectional studies the prevalence of SOGIECE in samples of 2SLGBTQ+ populations was estimated for Australia (1.3%),(42) South Korea (2.5%),(49) New Zealand (3.1%),(47) southern U.S. (7.6%),(20) all 50 states of the U.S. (14.8%),(3) Nigeria (17%),(48) Canada (20.6%),(5) Hong Kong (21.9%),(2) and Colombia (22.4%).(46) Note that differences in prevalence among countries might be related to differences in their socio-political contexts as well as differences in the methodology of the studies and the populations included (see Table 1 for details of studies that estimated prevalence). One medium-quality evidence synthesis reported the prevalence of SOGIECE among sexual and gender minority populations samples in 14 of the 16 included studies, which ranged from 2% to 34% (median: 8.5%) (data collected after 2015 n=12 studies, between 2011–2012 n=1, between 2002–2003 n=1, not reported n=2).(7) This evidence synthesis concluded that prevalence estimates were lower in studies conducted in Canada in comparison to studies conducted in the U.S.(7)

Studies that estimated the prevalence of SOGIECE by generational cohorts of participants commonly reported a higher prevalence among the youngest (mid-twenties and younger) and oldest (late-fifties and older) cohorts.(2; 3; 5; 48; 49) For instance, in Canada, the prevalence of SOGIECE in people younger than 20 was 37.4%, 25.6% in people between 20–29 years old, 20% in people 30–39 years old, 18.6% in people 40–49 years old, and 45.6% in people older than 60.(5) For further information see Table 2 for the prevalence of SOGIECE across generations in five countries (i.e., Canada, Hong Kong (China), Nigeria, South Korea, and the U.S.).

When we estimated which generations contributed more to the number of people exposed to SOGIECE, we found that in most studies, half of the people affected by SOGIECE are in their twenties or younger (see Table 2, which shows the burden of each generation to the total number of people exposed to SOGIECE).

Regarding the prevalence of SOGIECE in 2SLGBTQ+ people living in rural versus urban areas, one study in Canada reported a higher prevalence in urban and suburban than in rural areas.(5) No other studies provided additional insights.

Considering race/ethnicity, two studies in the U.S. reported that SOGIECE was more frequent in those who have a racial/ethnic minority background,(3; 20) and one study in Canada reported more risk of being exposed to SOGIECE among 2SLGTBQ+ people with African, Arabic, Asian, Black, Caribbean, Indigenous, Latin American, South Asian, and Southeast Asian background in comparison to white people.(5) One medium-quality evidence synthesis reported differences in the prevalence of SOGIECE by race, with a higher prevalence among Indigenous and other racial minorities (median 8%) in comparison to white people (median 5%).(7)

Additionally, one medium-quality evidence synthesis reported higher prevalences of SOGIECE among people assigned male at birth (median 10% for transgender and 8% for cisgender) in comparison to people assigned female at birth (median 5% for transgender and 3% for cisgender).(7)

Characteristics of SOGIECE

Most studies addressed sexual orientation change efforts (SOCE) exclusively (n=22), with one study focused only on gay males.(22)

When reported, the age at the first sexual orientation change effort experience was over 30 years old in five studies (mostly published between 2012 and 2014),(18; 19; 26; 43; 44) between 18 and 29 years old in seven studies (mostly published between 2014 and 2022),(2; 19; 22; 27; 28; 47; 48) and under the age of 18 in eight studies (mostly published between 2018 and 2022).(2; 19; 20; 22; 27; 29; 47; 48) One study in the U.S. found that individuals who undergo conversion therapy before age 18 were significantly more likely to experience serious mental illness.(20) It was also revealed that newer generations of young people were more likely to recognize and report their experiences with sexual orientation change efforts.(20)

The duration of sexual orientation change efforts was described in three studies. One study published in 2015 reported a range of one to 17 years of intervention duration,(28) another study published in 2020 reported an average of once a week for six months,(22) and another study published in 2022 reported that the range was between four weeks and one year.(2)

One study was exclusively focused on gender identity change efforts (GICE).(3) This study assessed the exposure to religious and non-religious GICE experiences among transgender and non-binary participants of a bigger survey conducted in 2015 in all 50 states and districts of the U.S. (n=27,715 adults).(3) This study did not provide information about the age at first GICE experience nor the duration of the intervention.

Twelve studies addressed sexual orientation, gender identity and expression change efforts. All studies included cis lesbian, cis gay, bisexual people, trans women, trans men, non-binary, and queer/questioning. When reported, the age at the first SOGIECE experience was under the age of 18 in five studies,(5; 24; 31; 42; 50) and between 18 and 29 in three studies.(24; 37; 50) One study specifically mentioned that among more than 40,000 youth surveyed in the U.S., 78% of those who underwent conversion therapy reported that it was when they were under the age of 18.(31) Studies did not provide comparative information about the impact of SOGIECE experiences considering the age of the first exposition to the intervention. Only one study reported the duration of the SOGIECE, which was approximately one year.(5)

Most studies did not compare SOGIECE interventions against other interventions. Only one study compared SOCE against affirmative therapy and found that counselling for sexual orientation change was largely ineffective and harmful, with 37% expressing that they were moderately to severely harmed. In contrast, affirming psychotherapeutic strategies were often found to be beneficial in reducing depression, increasing self-esteem, and improving family and other relationships.(26)

Overall, evidence was mostly focused on the study of sexual orientation change efforts, and fewer studies were focused on gender identity change efforts. Therefore, more studies are needed to fill gaps in this area.

Source/purveyors of SOGIECE

In three studies, the purveyors of SOGIECE were exclusively religious leaders or faith-based organizations.(18; 29; 41) All three studies reported psychological and spiritual harms with those interventions. In five studies, the source was exclusively licenced healthcare practitioners.(26; 32; 33; 43; 44) Those studies mostly focused on the experience of the provider, which is captured in the section about provider experiences below.

In the other fifteen studies, SOGIECE was delivered by a range of individuals and groups, including licensed and non-licensed healthcare providers, religious leaders and faith-based organizations. One study that surveyed 7,237

individuals in Canada (published in 2021) reported that most people experienced conversion therapy in a religious setting (67%), followed by licensed healthcare professionals (30%) and unlicensed healthcare professionals (20.3%).(5) Another cohort study in the U.S. (published in 2022) found that 69% of participants received conversion therapy delivered by a religious leader and 19.2% from a healthcare professional.(24) One qualitative study in the U.S. (published in 2014) found that the purveyors of SOCE were religious leaders (22.1%), religious individuals without leadership duties (21.2%), licensed counsellors (16.8%), pastoral counsellors (12.8%), peer counsellors (9.3%), marriage and family therapists (8.0%), psychologists (4.9%), social workers (2.7%), and psychiatrists (2.2%).(19) Regarding other settings of SOGIECE such as camps, families, schools, and community-based programs, only one study in Canada reported that among 2SLGTBQ+ exposed to SOGIECE, 8% were exposed to the intervention in a camp, and 18.6% were exposed to it from other sources.(5)

One study specifically focused on parent-initiated SOCE for 2SLGBTQ+ adolescents. In this study (published in 2020), from 245 participants surveyed, 53.1% reported that their parents tried to change their sexual orientation when they were between 13 and 19 years old, and 34.3% reported that their parents took them to a therapist or religious leader to change their sexual orientation.(29)

Two studies, one in Hong Kong (published in 2022) (2) and one in New Zealand (published in 2023),(47) reported that SOGIECE was advocated by family members (50% and 55.6%, respectively), by religious leaders (42.3% and 48.4%, respectively), and by healthcare providers (34.6% and 11.3%, respectively).

One study in Colombia (published in 2021) assessed differences in the impact of SOGICE by provider (i.e., healthcare professional, religious leader, or both combined). The analysis showed significant differences in suicide attempts among cisgender gay men, for whom receiving SOGIECE from both sources had a worse impact than receiving SOGIECE from healthcare professionals (adjusted OR=1.78, p=0.008) or religious leaders (adjusted OR=2.23, p<0.001) alone.(46)

Overall, evidence showed an important role of religious leaders and organizations as purveyors of SOGIECE, followed by healthcare providers.

Findings about economic impacts

One medium-quality evidence synthesis and economic evaluation reported that relative to 2SLGBTQ+ individuals who did not undergo SOGIECE, recipients experienced serious psychological distress (47% versus 34%), depression (65% vs. 27%), substance abuse (67% versus 50%), and attempted suicide (58% versus 39%). In the economic analysis, it was estimated that those who underwent SOGIECE faced an estimated additional $97,985 in lifetime costs per individual and had 1.61 quality-adjusted life years (QALYs) lost as compared to those who did not undergo SOGIECE. In addition, the same evidence synthesis and economic evaluation also found that affirmative therapy yielded cost savings of $40,329 USD with 0.93 QALYs gained versus no intervention. From a population perspective, SOGIECE translated to total costs of USD $650 million in 2021, with harms associated with an estimated economic burden of $9.23 billion USD.(6)

Findings about health impacts from quantitative research

Eight cross-sectional studies estimated the prevalence of SOCE/SOGIECE among samples of 2SLGBTQ+ populations in South Korea (2.5%),(49) New Zealand (3%),(47) the southern U.S. (7.6%),(20) Nigeria (17%),(48) Canada (21%),(5) Hong Kong (21.9%),(2) and Australia (1.3%) and Colombia (22.4%).(42; 46)

One study in the U.S. (published in 2010) reported that individuals who had received/anticipated negative family reactions, had high religious involvement, were male, and were racialized were more likely to participate in sexual

reorientation therapy.(34) In Nigeria (one study published in 2022), individuals who reported more religiosity and internalized homophobia were associated with a higher likelihood of self-initiating conversion therapy.(48)

Several studies reported significantly higher rates of suicidal ideation, planning suicide, suicide attempts, and non-suicidal self-injury. After adjusting for age, gender, and material deprivation, one study in New Zealand (published in 2023) found that SOGIECE exposure was significantly associated with increased non-suicidal self-injury frequency (OR 1.47; [95% CI 1.03–2.08]), and more than two times the odds of planning suicide (OR 2.56; [95% CI 1.74–3.78]) and attempting suicide (OR 2.73; [95% CI 1.70–4.39]).(47) In South Korea, one study (published in 2021) reported that participants who had undergone SOGIECE showed 44% higher odds of suicidal ideation and 2.35 times more suicide attempts than those without such practices.(49) One study in Hong Kong (published in 2022) reported a significantly higher likelihood of suicidal ideation and suicidal plans among sexual minority individuals who had undergone SOCE (83.3% and 27,1%, respectively) compared to those who had not undergone SOCE (59.6% and 14%, respectively).(2) In Colombia, SOGIECE experiences were associated with 69% increased odds of suicidal ideation, 55% increased odds of suicide planning, and 76% increased odds of suicide attempt.(46) In Australia, one study found that those who had experienced conversion practices in the past 12 months reported higher levels of suicidal ideation (adjusted OR 2.19; [95% CI=1.13–4.26]) or suicide attempts (adjusted OR 4.32; [95% CI=2.19–8.51]).(42)

In addition, in the U.S., 10 studies reported psychological harms, including suicide ideation and attempts.(3; 19; 20; 22; 26; 28; 29; 31; 35; 50) Specifically, one study (published in 2020) reported that 28% of youth who experienced SOGIECE attempted suicide in comparison to 12% of those who had not gone to conversion therapy.(31) Another study (published in 2018) similarly found that those who underwent or were currently undergoing SOGIECE reported having twice the odds of attempted suicide compared to people who had not experienced SOGIECE.(35) One cohort study (published in 2020) found that conversion therapy was associated with depressive symptoms, post-traumatic stress disorder, and cumulative psychological disorders.(22) Two studies did not report harms derived from SOGIECE interventions (both studies published in 2000).(27; 36) However, one study concluded that individuals who completed conversion therapy are likely to experience suicidal behaviours, and this was particularly the case for males with a history of mental illness, emotional abuse, sexual abuse, and victimization, but these outcomes were not identified as being a consequence of SOGIECE.(24)

Lastly, three studies that assessed SOGIECE delivered by religious institutions reported that this intervention decreased self-esteem, increased self-shame, depression, and anxiety, and increased distance from God and the church, worsening family relationships, and was perceived as a waste of time and money.(3; 26; 28)

Findings about health impacts from qualitative research

We identified 10 qualitative studies with insights about health impacts, which were conducted in the U.S. (n=5), Canada (n=2), the U.K. (n=2), and Australia (n=1). The number of participants in the studies varied between seven and 42. When the information was provided, the sample methods were snowball and purposive sampling, and the data collection was usually through individual interviews, except in one study about religious trauma and moral injury that used one-on-one and group interviews. Further details about included studies are provided in Appendix 3.

Two studies provided insights into the reasons that people had to seek SOGIECE. One study reported that the principal reason was related to religious beliefs (n=29, 80.6%) with one participant stating, "Being gay was a sin, and I couldn't be a Christian and gay." The other two most frequently identified reasons related to family acceptance/rejection (n=14, 38.9%), with one participant mentioning that they "Wanted to be 'normal' so that my family and parents would love me again," and the desire for a "normal" heterosexual life (n=14, 38.9%), with one participant noting ". . . I wanted to live a 'normal' life, married with children – it was my dream."(19)

One study published in 2002 reported that most people who experienced conversion therapies failed to change their sexual orientation but instead experienced psychological harms including depression, suicidality, and self-esteem issues.(25) In the case of aversive conditioning and covert sensitization, harm included intrusive flashback-like negative imagery that was associated with long-term severe sexual dysfunction.(25) Areas of perceived social harm included impairment in intimate and non-intimate relationships.(25) In this study, a minority of participants reported feeling helped, although not necessarily with their original goal of changing sexual orientation but with the possibility of sharing their experiences in a support group.(25)

Among studies published between 2012 and 2014, one study that explored the effects of aversion therapies in the U.K. from 1949 to 1992 found that all gay males in the study reported those interventions to be unsuccessful in altering their sexual desires and instead left patients emotionally troubled.(43) One participant in this study noted: "I am still slightly troubled by the treatment I received in hospital, I just don't know how something so tortuous could have been concealed under the term 'health care.'"(43) In the U.S., one study reported that SOCE was associated with dissociation from their authentic selves.(18) Another study found that the most frequently identified short-term harms were represented by "mental health (depression, anxiety)," and the most frequent long-term harms were feelings of "shame, guilt, self-hatred," and suicidal ideation. One participant expressed "In spite of the therapist's efforts, my depression grew worse under his care rather than growing better. I began cutting, secured a gun license in my state, and almost killed myself."(19)

Recent studies, mostly conducted in Canada, found that people with lived experiences of SOGIECE indicated that these approaches created or worsened health and social impacts, such as a sense of 'brokenness,' relational challenges, and impaired mental health and well-being.(37) Another study found that SOGIECE interventions can negatively impact how individuals view themselves and their relationships with those around them.(40) Another study found that individuals who experienced SOGIECE described challenges with self-loathing, internalized homonegativity, and significant delays in adopting narratives that affirm their sexual and gender identities and promote positive development.(39)

Some religious participants also reported experiencing severe spiritual harm, such as moral injury and religious trauma.(19; 25; 28; 41) In one study, one participant mentioned, "My Bishop gave me a blessing promising me that I could change. Everyday I didn't change, I thought I was more a failure, more of a monster."(28) In another study, one participant said, "Also made me feel inadequate because my faith was too weak for me to change."(19) In one study in the U.S that interviewed 21 pastors leading Mainline Protestant Christian congregations in rural locations reported that pastors believe that conversion therapies are painful, ineffective, unethical, and could have negative mental health outcomes.(21)

Findings about health impacts from evidence syntheses

Three evidence syntheses (one low, one medium, and one high quality) addressed the health impacts of SOGIECE. One low-quality evidence synthesis focused on the U.S. found that studies that reported information about the adverse effects of SOGIECE noted that those who sought reparative therapies perceived psychological harm in the form of depression, suicidal ideation and attempts, social and interpersonal harm, loss of social support, and spiritual harm.(10) One medium-quality evidence synthesis that described five core themes from qualitative literature relating to the mental health challenges faced by sexual and gender minority youth, which included: 1) isolation, rejection, phobia, and need for support; 2) marginalization; 3) depression, self-harm, and suicidality; 4) policy and environment; and 5) connectedness.(11) In a high-quality evidence synthesis, the mental health consequences of conversion therapies were poorly described, and no reports from the patients were included.(9)

Regarding other important outcomes such as access to mental health services, alcohol and substance use, sexually transmitted infections (STI), victimization, and the debut of sexual behaviour, two studies reported a non-statistically significant increase in binge drinking and substance abuse,(29; 30) and one of those studies also reported

a non-statistically significant increased risk of engaging in unprotected sex, having an STI, or being at risk of contracting HIV.(29) Other outcomes were not identified.

Experiences and perceptions of healthcare providers that delivered SOGIECE

Three studies published between 2000 and 2014 explored the perceptions and experiences of healthcare providers delivering SOGIECE. One study in the U.S. with members of the American Association for Marriage and Family Therapy found that negative beliefs about homosexuality or not working with 2SLBGTQ+ clients were associated with a greater likelihood of believing that conversion therapy is ethical.(33) In one study with 206 therapists, 187 participants said they believed homosexuality is a developmental disorder and that the 1973 decision by the American Psychiatric Association to "depathologize" homosexuality was politically motivated and unscientific.(36) Moreover, the study indicated that the therapists believe that the majority of dissatisfied homosexually oriented clients who seek conversion therapy benefit from it, experiencing both changes in their sexual orientation and improved psychological functioning.(36) Another study reported that clinical psychologists who received their doctoral degrees before 1970 and after 1978 still viewed homosexuality as "unacceptable" despite legally issuing homosexuality as not a psychiatric disorder in 1974.(32) One study reported that nurses working in aversion therapy centres limited their guilt concerning administering aversion therapies by adopting dehumanizing and objectifying language and by focusing on administrative tasks.(44)

Findings from studies published before 1980

The six studies included were controlled trials (n=2),(14; 16) cross-sectional (n=1),(12) and case series (n=3).(13; 15; 17) The number of individuals in each study varied from 10 to 43. Overall, studies assessed pharmacological or electrical aversion 'therapy,' delivered to homosexual population and pedophilic populations without differentiating them. In two studies, part of the individuals who underwent aversion therapies were Court referred as part of a sentencing, 42% in one study and 38.9% in another study.(14; 16) Five studies reported a high frequency of anxiety, depression, anger, and irritability during and after the intervention.(12-15; 17)

Conclusion

This rapid synthesis found evidence of negative impacts of SOGIECE on the mental and physical health, well-being, and spiritual health of 2SLGBTQ+ people. Overall, there is scarce evidence regarding the experiences of transgender and racialized people exposed to GICE, so more quantitative and qualitative studies are needed. There is also a lack of evidence on the prevalence, characteristics, and effects of SOGIECE by rural/remote/urban locations, Indigenous, racialized, and minority ethnic populations, and source/purveyor (e.g., religious leaders/groups/organizations, healthcare providers, camps, family members, school or community-based settings). There is also a lack of evidence regarding the impact of SOGIECE on access to mental health services; alcohol and substance use; STBBI; victimization (e.g., family/gender-based violence, hate crimes, bullying, child maltreatment, sexual assault); and debut of sexual behaviours.

Table 1. Characteristics of studies reporting the prevalence of SOGIECE

Country	Sample	Study	Questions asked	Prevalence found
South Korea (49)	2,168 LGB participants (transgender not included; no other categories of 2SLGBTQ+)	• Design: Cross-sectional online survey • Name of the original study: "Rainbow Connection Project I—Korean Lesbian, Gay, & Bisexual Adults' Health Study" • Data collection: 11 November to 5 December 2016 • Criteria for inclusion of participants: a) at least 19 years old, b) Koreans, c) resided in Korea, d) identified as cisgender • What was studied: SOCE	• "Have you ever been advised to receive therapy or counselling to change your sexual orientation?" • "Have you ever received therapy or counselling to change your sexual orientation?" • Based on the responses to these questions, participants were classified into three categories: a) "never experienced" SOCE, b) "been advised but not undergone SOCE," and c) "undergone SOCE"	The prevalence of having "been advised but not undergone SOCE" was 9.3% The prevalence of having "undergone SOCE" was 2.5%
New Zealand (47)	4,118 LGBTQIA+ young participants	• Design: Cross-sectional online survey • Name of the original study: "Identify Survey" • Data collection: February to August 2021 • Criteria for inclusion of participants: LGBTQIA+ young people, and friends and allies aged between 14 and 26 years (inclusive) in Aotearoa New Zealand • What was studied: SOGIECE	• "Have you ever personally experienced 'conversion therapy'?" (with a description of what is 'conversion therapy') • "Which of the following people suggested 'conversion therapy' to you? (Please select all that apply)." Response options included A leader in my religious or spiritual community; A medical professional; A family/whānau member; myself; and another person (please describe)"	In total, 124 participants (3.1%) reported ever having experienced SOGICE
Southern U.S. (20)	4,096 LGBTQ participants disaggregated by cisgender sample and gender minority sample	• Design: Cross-sectional online survey • Name of the original study: "LGBTQ Institute Southern Survey" • Data collection: June 2021 to March 2022 • Criteria for inclusion of participants: a) at least 18 years old, b) living in one of the following states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia • What was studied: Conversion therapy	• "During adolescence, were you ever sent to a therapist/mental health practitioner, clergy/religious leader, or some other individual or organization in an effort to change your sexual orientation?" • "Respondents who answered 'yes' to the first question could also answer a check-all-that-apply question asking whether they had experienced conversion therapy from a religious leader/clergy member, mental health practitioner, or someone else"	Conversion therapy survivors comprised 7.6% of the sample (11.6% after listwise deletion)
Nigeria (48)	406 sexual minority men (SMM) who attend religious organizations and who mentioned being forced into conversion therapy by religious organizations	• Design: Cross-sectional in-person private and confidential survey • Name of the original study: Not provided • Data collection: March to June 2019 • Criteria for inclusion of participants: a) at least 18 years old, b) current residence in one of four states (Abuja, Delta, Lagos or Plateau), c) self-identified as a cisgender	• "I have been forced to participate in a prayer service or traditional ceremony to turn me straight?" with response options "yes," "no," or "not sure" • "If I could change from being LGBT to be straight, I would." ○ This question aimed to assess "internalized homophobia," this was assessed using three items and scored on a five-point Likert scale ranging from 1	17% of 404 participants reported a history of being forced to participate in conversion therapy at a religious institution

Country	Sample	Study	Questions asked	Prevalence found
		male, d) self-reported history of sex (oral or anal) with another male • What was studied: SOCE	"Strongly Disagree to 5 "Strongly Agree" with a higher score indicating higher levels of internalized homophobia	
Canada (5)	9,214 sexual and gender minority men, including transmen and non-binary individuals	• Design: Cross-sectional online survey • Name of the original study: "Sex Now" • Data collection: 4 November 2019 to 6 February 2020 • Criteria for inclusion of participants: a) at least 15 years old, b) "self-identified as men (inclusive of trans men), non-binary (regardless of sex assigned at birth)," or Two Spirit; c) "identified as gay, bisexual, queer, or another non-heterosexual identified and/or have reported having had sex with a man (cis or trans) in the last 5 years," d) lived in Canada • What was studied: SOGIECE	• "Have you ever been exposed to any of the following conversion efforts (check all that apply)? Conversion efforts by: licensed healthcare professional (psychologist, psychiatrist, doctor), unlicensed counsellor, camp, a faith-based organization focused on conversion therapy, individual religious leader (i.e., not through a formal organization), and/or another religious individual." (refer to this outcome as conversion therapy exposure) • "Have you or any person with authority (parent, caregiver, counsellor, community leader, etc.) ever tried to change your sexual orientation or gender identity?" (refer to this outcome as SOGIECE exposure)	People exposed to SOGIECE: n=1,898 (20.6% [95% CI 19.8, 21.4]) People exposed to conversion therapy: n=910 (9.9% [95% CI 9.3, 10.5])
Hong Kong (2)	219 sexual minority individuals	• Design: Cross-sectional online survey • Name of the original study: Not provided • Data collection: 2020–2021 • Criteria for inclusion of participants: a) at least 16 years old, b) identified or had identified as lesbian, gay, bisexual, or otherwise not heterosexual, c) lived in Hong Kong • What was studied: SOCE	• "Participants were first asked whether they had ever been involved in self-initiated and/or other-initiated SOCE. For those who had been engaged in other-initiated SOCE, they were asked by whom they were advised to seek SOCE (e.g., 'family members,' 'relatives,' 'religious leader')" • "In addition, they were asked to indicate the methods of SOCE that they had involved in themselves and/or had been advised by others (e.g., 'participate in sexual orientation change course,' 'seek medication,' 'seek psychological counselling')"	48 of 219 participants had experienced SOCE (21.9%)
Australia (42)	4,370 cisgender LGBQA+ participants	• Design: Cross-sectional online survey • Name of the original study: "WTI4 survey" • Data collection: September to October 2019 • Criteria for inclusion of participants: a) aged 14–21 years, b) identified as LGBTIQA+, c) lived in Australia • What was studied: SOCE	• "Have you attended counselling, group work, programs or interventions aimed at changing your sexuality or gender identity in the past 12 months?" response options were "yes," "no," "don't know," and "prefer not to answer"	57 participants had attended SOCE in the past 12 months (1.3%), 4,212 were not exposed (96.8%)
Colombia (46)	4,160 sexual and gender minority Colombian adults	• Design: Cross-sectional online survey • Name of the original study: Not provided • Data collection: February to July 2019 • Criteria for inclusion of participants: a) "identified as sexual or gender minority by	• "Did you ever receive treatment from someone who tried to change your sexual orientation [such as try to make you straight/ heterosexual]?" • "Have you ever received treatment from someone who tried to make you identify only with your sex assigned at	22.4% of the participants reported ever experiencing SOGIECE

Country	Sample	Study	Questions asked	Prevalence found
		using terms such as lesbian, gay, bisexual, and transgender," b) resided in Colombia, c) completed fourth-grade education or more • What was studied: SOGIECE	birth [in other words, try to prevent you from being transgender]?""	
US (22)	1,156 men who have sex with men	• Design: Cross-sectional in-person survey (embedded in a cohort) • Name of the original study: The Healthy Aging Substudy, which belongs to the Multicenter AIDS Cohort Study (MACS) • Data collection: six-month intervals from April 2016 to March 2019 • Criteria for inclusion of participants: a) 40 years old by the first data collection wave (April 2016), b) being present for at least two consecutive Cohort study visits, c) reporting any sexual intercourse with another man since enrolling in the Cohort study • What was studied: Conversion therapy	• Participants were asked "whether they had ever undergone conversion therapy to change their sexual orientation"; those who marked a "yes" response were provided a battery of items to specify the types of therapies undergone	A total of 171 participants (14.8%) reported any prior conversion therapy experience
US (all 50 states) (3)	27,715 adults who identified as having a marginalized gender identity, which included transgender, trans, nonbinary, genderqueer, and other identities on the transgender identity spectrum	• Design: Cross-sectional online survey (embedded in a cohort) • Name of the original study: "USTS" • Data collection: 2015 • Criteria for inclusion of participants: Unclear • What was studied: GICE	• "Did any professional (such as a psychologist, counsellor, or religious advisor) try to make you identify only with your sex assigned at birth (in other words, try to stop you from being trans)?" • Those answering "yes" responded to this follow-up question: "Was this person a religious or spiritual counsellor/advisor?" where a "yes" response further categorized participants into experiencing GICE within a religious setting	14.8% experienced GICE

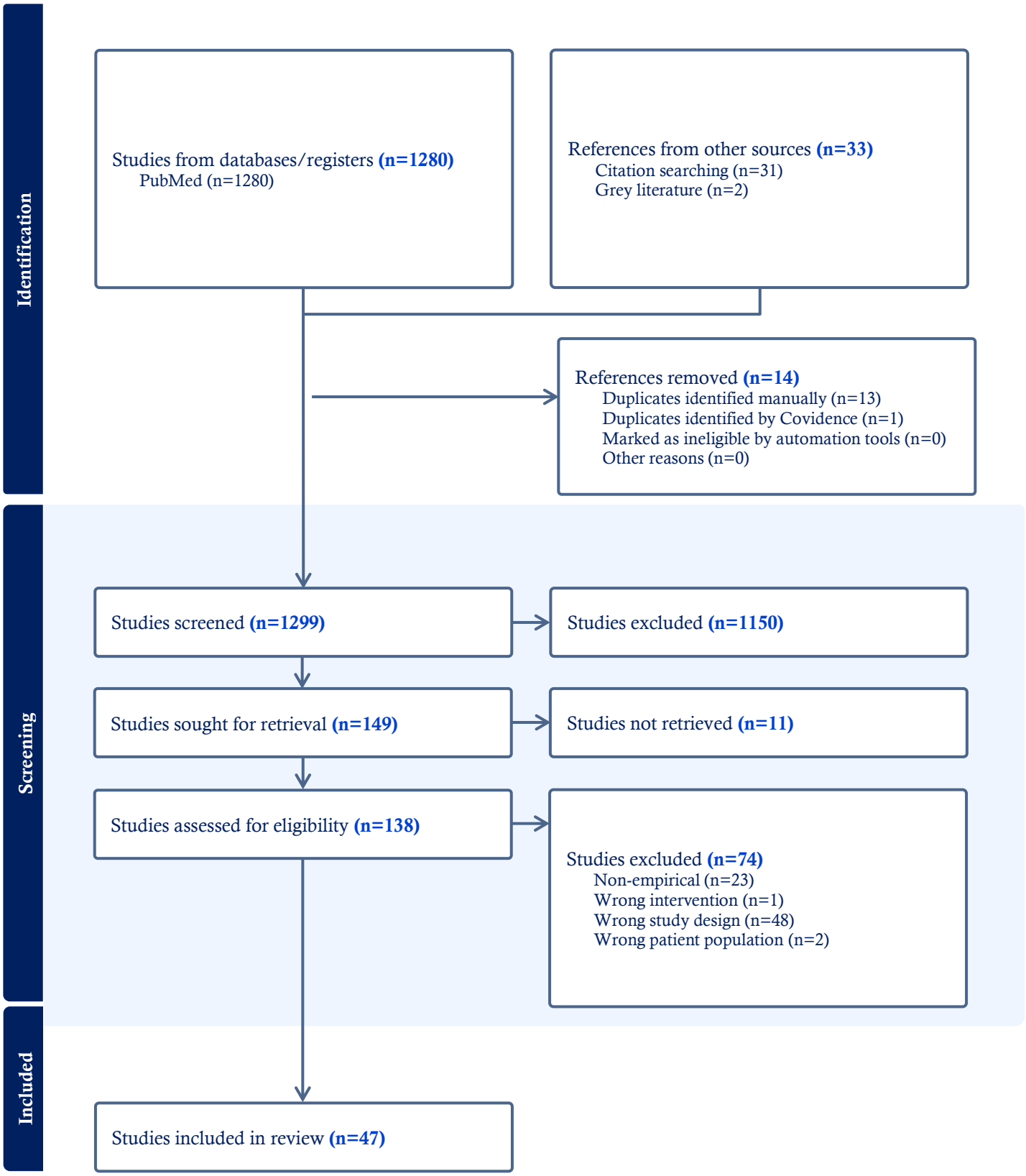
Table 2. Frequency and burden of exposure to SOGIECE by age group

Country	Total number of study participants reported, by age group	Frequency of exposure to SOGIECE among study participants, by age group*	Burden of exposure to SOGIECE by age group**
Canada (5)	• Total study participants: 8,425 o <20 (n=358 surveyed) o 20-29 (n=2,695 surveyed) o 30-29 (n=2,346 surveyed) o 40-49 (n=1,371 surveyed) o 50-59 (n=1,557 surveyed) o 60+ (n=98 surveyed)	• Total study participants exposed to SOGIECE: 1,884 (22.4%) o <20: n= 134 participants exposed to SOGIECE (37.4%) o 20-29 n=691 participants exposed to SOGIECE (25.6%) o 30-39 n=469 participants exposed to SOGIECE (20.0%) o 40-49 n=255 participants exposed to SOGIECE (18.6%) o 50-59 n=237 participants exposed to SOGIECE (15.2%) o 60+ n=98 participants exposed to SOGIECE (45.6%)	• <20: 134 (7.1% of exposures to SOGIECE) • 20-29: 691 (36.7% of exposures to SOGIECE) • 30-39: 469 (24.9% of exposures to SOGIECE) • 40-49: 255 (13.5% of exposures to SOGIECE) • 50-59: 237 (12.6% of exposures to SOGIECE) • 60+: 98 (5.2% of exposures to SOGIECE)
Hong Kong (2)	• Total study participants: 219 o 17-24 (n=53 surveyed) o 25-34 (n=118 surveyed) o 35+ (n=48 surveyed)	• Total study participants exposed to SOGIECE: 48 (21.9%) o 17-24 n=7 participants exposed to SOGIECE (13.2%) o 25-34: n=26 participants exposed to SOGIECE (22.0% o 35+: n=15 participants exposed to SOGIECE (31.3%)	• 17-24: 7 (15% of exposures to SOGIECE) • 25-34: 26 (54% of exposures to SOGIECE) • 35+: 15 (31% of exposures to SOGIECE)
Nigeria (48)	• Total study participants: 399 o 18-24 (n= 79 surveyed) o 25-29 (n=116 surveyed) o 30+ (n=204 surveyed)	• Total study participants exposed to SOGIECE: 69 (17.3%) o 18-24: n=13 participants exposed to SOGIECE (16.5%) o 25-29: n=17 participants exposed to SOGIECE (14.7%) o 30+: n=39 participants exposed to SOGIECE (19.1%)	• 18-24: 13 (18.8% of exposures to SOGIECE) • 25-29: 17 (24.7% of exposures to SOGIECE) • 30+: 39 (56.5% of exposures to SOGIECE)
South Korea (49)	• Total study participants: 2,168 o 19-24 (n=985 surveyed) o 25-29 (n=557 surveyed) o 30-39 (n=425 surveyed) o 40-69 (n=201 surveyed)	• Total study participants exposed to SOGIECE: 55 (2.5%) o 19-24: n= 16 participants exposed to SOGIECE (1.6%) o 25-29: n=22 participants exposed to SOGIECE (3.9%) o 30-39: n= 10 participants exposed to SOGIECE (2.4%) o 40-69: n= 7 participants exposed to SOGIECE (3.5%)	• 19-24: 16 (29.1% of exposures to SOGIECE) • 25-29: 22 (40.0% of exposures to SOGIECE) • 30-30: 10 (18.2% of exposures to SOGIECE) • 40-69: 7 (12.7% of exposures to SOGIECE)
Southern United States (20)		• Total study participants exposed to SOGIECE: 475	• 18-29: 178 (37.5% of exposures to SOGIECE) • 30-39: 104 (21.9% of exposures to SOGIECE) • 40-49: 84 (17.7% of exposures to SOGIECE) • 50+: 109 (22.9% of exposures to SOGIECE)
United States (all 50 states) (3)	• Total study participants: 23,231 o 18-24 (n=2,743 surveyed) o 25-44 (n=9,100 surveyed) o 45-64 (n=7,909 surveyed) o 65+ (n=3,479 surveyed)	• Total study participants exposed to SOGIECE: 3,438 (14.8%) o 18-24: n=300 participants exposed to SOGIECE (10.9%) o 25-44: n=1,420 participants exposed to SOGIECE (15.6%) o 45-64: n=1,243 participants exposed to SOGIECE (15.7%) o 65+: n=475 participants exposed to SOGIECE (13.7%)	• 18-24: 300 (8.7% of exposures to SOGIECE) • 25-44: 1,420 (41.3% of exposures to SOGIECE) • 45-64: 1,243 (36.2% of exposures to SOGIECE) • 65+: 475 (13.8% of exposures to SOGIECE)

*The percentages reported is the total number of participants exposed to SOGIECE in an age group divided by the total number of participants in that age group for the study

**This column is the calculation of total number of participants exposed to SOGIECE in an age group divided by the total number of people exposed to SOGIECE in the study.

Figure 1. PRISMA chart



References

1. CBRC. Conversion Therapy and SOGIECE. 2024. https://www.cbrc.net/conversion_therapy_sogiece (accessed March 27 2024).
2. Chan RCH, Leung JSY, Wong DCK. Experiences, Motivations, and Impacts of Sexual Orientation Change Efforts: Effects on Sexual Identity Distress and Mental Health Among Sexual Minorities. *Sexuality Research and Social Policy* 2022;19(4): 1534-1548.
3. Heiden-Rootes K, McGeorge CR, Salas J, Levine S. The effects of gender identity change efforts on Black, Latinx, and White transgender and gender nonbinary adults: Implications for ethical clinical practice. *J Marital Fam Ther* 2022;48(3): 927-944.
4. Bill C-4: An Act to amend the Criminal Code (conversion therapy), C-4 (2021).
5. Salway T, Juwono S, Klassen B, et al. Experiences with sexual orientation and gender identity conversion therapy practices among sexual minority men in Canada, 2019-2020. *PLoS One* 2021;16(6): e0252539.
6. Forsythe A, Pick C, Tremblay G, Malaviya S, Green A, Sandman K. Humanistic and Economic Burden of Conversion Therapy Among LGBTQ Youths in the United States. *JAMA Pediatr* 2022;176(5): 493-501.
7. Salway T, Kinitz DJ, Kia H, et al. A systematic review of the prevalence of lifetime experience with 'conversion' practices among sexual and gender minority populations. *PLoS One* 2023;18(10): e0291768.
8. Kinitz DJ, Salway T, Dromer E, et al. The scope and nature of sexual orientation and gender identity and expression change efforts: a systematic review protocol. *Syst Rev* 2021;10(1): 14.
9. Wright T, Candy B, King M. Conversion therapies and access to transition-related healthcare in transgender people: a narrative systematic review. *BMJ Open* 2018;8(12): e022425.
10. Serovich JM, Craft SM, Toviessi P, Gangamma R, McDowell T, Grafsky EL. A systematic review of the research base on sexual reorientation therapies. *J Marital Fam Ther* 2008;34(2): 227-38.
11. Wilson C, Cariola LA. LGBTQI+ Youth and Mental Health: A Systematic Review of Qualitative Research. *Adolescent Research Review* 2020;5(2): 187-211.
12. Bancroft J, Marks I. Electric aversion therapy of sexual deviations. *Proc R Soc Med* 1968;61(8): 796-9.
13. Marks IM. Aversion therapy. *Br J Med Psychol* 1968;41(1): 47-52.
14. MacCulloch MJ, Feldman MP. Aversion therapy in management of 43 homosexuals. *Br Med J* 1967;2(5552): 594-7.
15. Bancroft J. Aversion therapy of homosexuality. A pilot study of 10 cases. *Br J Psychiatry* 1969;115(529): 1417-31.
16. McConaghy N, Proctor D, Barr R. Subjective and penile plethysmography responses to aversion therapy for homosexuality: a partial replication. *Arch Sex Behav* 1972;2(1): 65-78.
17. de Mather NJ. The treatment of homosexuality by aversion therapy. *Med Sci Law* 1966;6(4): 200-5.
18. Fjelstrom J. Sexual orientation change efforts and the search for authenticity. *J Homosex* 2013;60(6): 801-27.
19. Flentje A, Heck NC, Cochran BN. Experiences of ex-ex-gay individuals in sexual reorientation therapy: reasons for seeking treatment, perceived helpfulness and harmfulness of treatment, and post-treatment identification. *J Homosex* 2014;61(9): 1242-68.
20. Higbee M, Wright ER, Roemerman RM. Conversion Therapy in the Southern United States: Prevalence and Experiences of the Survivors. *J Homosex* 2022;69(4): 612-631.
21. McGeorge CR, Coburn KO, Walsdorf AA. Christian Mainline Protestant Pastors' Beliefs About the Practice of Conversion Therapy: Reflections for Family Therapists. *J Marital Fam Ther* 2021;47(3): 698-712.
22. Meanley S, Haberlen SA, Okafor CN, et al. Lifetime Exposure to Conversion Therapy and Psychosocial Health Among Midlife and Older Adult Men Who Have Sex With Men. *Gerontologist* 2020;60(7): 1291-1302.

23. Scheadler TR, Haus KR, Mobley TA, Mark KP. LGBTQ+ Grassroots Activism: An Opportunity for Resilience. *J Homosex* 2023;70(9): 1675-1700.

24. Sullins DP. Sexual Orientation Change Efforts Do Not Increase Suicide: Correcting a False Research Narrative. *Arch Sex Behav* 2022;51(7): 3377-3393.

25. Shidlo A, Schroeder M. Changing sexual orientation: A consumers' report. *Professional Psychology: Research and Practice* 2002;33(3): 249-59.

26. Bradshaw K, Dehlin JP, Crowell KA, Galliher RV, Bradshaw WS. Sexual orientation change efforts through psychotherapy for LGBQ individuals affiliated with the Church of Jesus Christ of Latter-day Saints. *J Sex Marital Ther* 2015;41(4): 391-412.

27. Nicolosi J, Byrd AD, Potts RW. Retrospective self-reports of changes in homosexual orientation: a consumer survey of conversion therapy clients. *Psychol Rep* 2000;86(3 Pt 2): 1071-88.

28. Dehlin JP, Galliher RV, Bradshaw WS, Hyde DC, Crowell KA. Sexual orientation change efforts among current or former LDS church members. *J Couns Psychol* 2015;62(2): 95-105.

29. Ryan C, Toomey RB, Diaz RM, Russell ST. Parent-Initiated Sexual Orientation Change Efforts With LGBT Adolescents: Implications for Young Adult Mental Health and Adjustment. *J Homosex* 2020;67(2): 159-173.

30. Turban JL, Brady C, Olson-Kennedy J. Understanding and Supporting Patients With Dynamic Desires for Gender-Affirming Medical Interventions. *JAMA Netw Open* 2022;5(7): e2224722.

31. Project TT. The Trevor Project National Survey on LGBTQ Youth Mental Health 2020. Published 2020. Accessed March 1, 2021. . 2020.

32. Jordan KM, Deluty RH. Clinical interventions by psychologists with lesbians and gay men. *J Clin Psychol* 1995;51(3): 448-56.

33. McGeorge CR, Carlson TS, Toomey RB. An exploration of family therapists' beliefs about the ethics of conversion therapy: the influence of negative beliefs and clinical competence with lesbian, gay, and bisexual clients. *J Marital Fam Ther* 2015;41(1): 42-56.

34. Maccio EM. Influence of family, religion, and social conformity on client participation in sexual reorientation therapy. *J Homosex* 2010;57(3): 441-58.

35. Green AE, Price-Feeney M, Dorison SH, Pick CJ. Self-Reported Conversion Efforts and Suicidality Among US LGBTQ Youths and Young Adults, 2018. *Am J Public Health* 2020;110(8): 1221-1227.

36. Nicolosi J, Byrd AD, Potts RW. Beliefs and practices of therapists who practice sexual reorientation psychotherapy. *Psychol Rep* 2000;86(2): 689-702.

37. 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): 599-609.

38. Goodyear T, Delgado-Ron JA, Ashley F, Knight R, Salway T. Sexual Orientation and Gender Identity and Expression Change Efforts and Suicidality: Evidence, Challenges, and Future Research Directions. *LGBT Health* 2023;10(5): 339-343.

39. Kinitz DJ, Salway T. Cisheteronormativity, Conversion Therapy, and Identity Among Sexual and Gender Minority People: A Narrative Inquiry and Creative Non-fiction. *Qual Health Res* 2022;32(13): 1965-1978.

40. 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.

41. Jones TW, Power J, Jones TM. Religious trauma and moral injury from LGBTQA+ conversion practices. *Soc Sci Med* 2022;305: 115040.

42. Hill AO, Lyons A, Power J, et al. Suicidal Ideation and Suicide Attempts Among Lesbian, Gay, Bisexual, Pansexual, Queer, and Asexual Youth: Differential Impacts of Sexual Orientation, Verbal, Physical, or Sexual Harassment or Assault, Conversion Practices, Family or Household Religiosity, and School Experience. *LGBT Health* 2022;9(5): 313-324.

43. Dickinson T, Cook M, Playle J, Hallett C. 'Queer' treatments: giving a voice to former patients who received treatments for their 'sexual deviations'. *J Clin Nurs* 2012;21(9-10): 1345-54.

44. Dickinson T, Cook M, Playle J, Hallett C. Nurses and subordination: a historical study of mental nurses' perceptions on administering aversion therapy for 'sexual deviations'. *Nurs Inq* 2014;21(4): 283-293.

45. Tenório de Souza FM, Pimentel CE, Pereira CR. From conservatism to support for gay conversion therapy: the role of prejudice and beliefs about same-sex sexuality. *J Soc Psychol* 2022;162(6): 752-769.

46. 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.

47. Fenaughty J, Tan K, Ker A, Veale J, Saxton P, Alansari M. Sexual Orientation and Gender Identity Change Efforts for Young People in New Zealand: Demographics, Types of Suggesters, and Associations with Mental Health. *J Youth Adolesc* 2023;52(1): 149-164.

48. Ogunbajo A, Oke T, Okanlawon K, Abubakari GM, Oginni O. Religiosity and Conversion Therapy is Associated with Psychosocial Health Problems among Sexual Minority Men (SMM) in Nigeria. *J Relig Health* 2022;61(4): 3098-3128.

49. Lee H, Streed CG, Yi H, Choo S, Kim SS. Sexual Orientation Change Efforts, Depressive Symptoms, and Suicidality Among Lesbian, Gay, and Bisexual Adults: A Cross-Sectional Study in South Korea. *LGBT Health* 2021;8(6): 427-432.

50. Turban JL, Beckwith N, Reisner SL, Keuroghlian AS. Association Between Recalled Exposure to Gender Identity Conversion Efforts and Psychological Distress and Suicide Attempts Among Transgender Adults. *JAMA Psychiatry* 2020;77(1): 68-76.

Vélez CM, Wilson MG, Dass R, Grewal E, Bhuiya A, Massarella C, Woodward K, Lavis, JN. Rapid synthesis: Health impacts of sexual orientation, gender identity, gender expression change, and so-called “conversion therapy” on 2SLGBTQI+ populations. Hamilton: McMaster Health Forum, 27 March 2024.

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