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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[MHF product code: RS 120]

Appendices

***Disclaimer: some of the language in the following 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.**

Appendix 1: Methodological details

Background to the rapid synthesis

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum's Rapid Response program. Whenever possible, the rapid synthesis summarizes evidence drawn from existing evidence syntheses and from single research studies in areas not covered by existing evidence syntheses and/or if existing evidence syntheses are old or the science is moving fast. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

The Forum produces timely and demand-driven contextualized evidence syntheses such as this one that address pressing health and social system issues faced by decision-makers (see our website for more details and examples). This includes evidence syntheses produced within:

- days (e.g., rapid evidence profiles or living evidence profiles)
- weeks (e.g., rapid syntheses that at a minimum include a policy analysis of the best-available evidence which can be requested in a 10-, 30-, 60-, or 90-business-day timeframe)
- months (e.g., full evidence syntheses or living evidence syntheses with updates and enhancements over time)

This rapid synthesis was prepared over a 30-business day timeframe and involved four steps:

1) submission of a question from a policymaker or stakeholder (in this case, Public Health Agency of Canada)
2) engaging subject matter expert
3) identifying, selecting, appraising, and synthesizing relevant research evidence about the question
4) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence.

Engaging subject matter experts

At the beginning of each rapid synthesis and throughout 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.

Identification, selection, quality appraisal and synthesis of evidence

For this rapid synthesis, we searched Health Systems Evidence and the Cochrane Library for evidence syntheses and protocols for evidence syntheses that are underway, as well as PubMed for evidence syntheses and single studies. In Health Systems Evidence and the Cochrane Library, we searched for evidence syntheses using “conversion therapy” OR “gender expression” OR “gender identity” OR “gender change” in the open search field. In Cochrane Library, we searched for “conversion therapy.” Lastly, in PubMed, we searched for (((((gender identity[MeSH Terms]) OR (Gender-Nonconforming Persons[MeSH Terms])) OR (Gender Dysphoria[MeSH Terms])) OR (homosexuality[MeSH Terms])) AND ((conversion therapy practices[Title/Abstract]) OR (conversion practices[Title/Abstract]))) OR (sexual orientation[Title/Abstract] AND gender identity change efforts[Title/Abstract])) OR (SOGIECE[Title/Abstract])) OR (SOGICE[Title/Abstract])) OR (conversion practices[Title/Abstract])) OR (ex-gay ministry[Title/Abstract])) OR (ex-trans ministry[Title/Abstract])) OR (sexual orientation change efforts[Title/Abstract])) OR (SOCE[Title/Abstract])) OR (sexual orientation distress[Title/Abstract] AND change efforts[Title/Abstract])) OR (gender identity change efforts[Title/Abstract])) OR (GICE[Title/Abstract])) OR (SOGIE change practices[Title/Abstract])) OR (reparation theory[Title/Abstract])) OR (reparative therapy of homosexuality[Title/Abstract])) OR (sexual reorientation therapy[Title/Abstract])) OR (reorientation therapy[Title/Abstract])) OR (aversion therapy[Title/Abstract])) OR (reintegrative therapy[Title/Abstract])) OR (gay care therapy[Title/Abstract])) OR (conversion act*[Title/Abstract])) OR (LGBT psychiatry[Title/Abstract])) OR (ex-ex-gay[Title/Abstract])) OR (sexual reorientation therapy*[Title/Abstract])) OR (reorientation therapy[Title/Abstract])) OR (reorientation treatment[Title/Abstract])) OR (reorientation psychotherapy[Title/Abstract])) OR (reorientation treatment[Title/Abstract])) OR (reorientation psychotherapy[Title/Abstract])) OR (change allowing therap*[Title/Abstract])) OR (transformational ministry[Title/Abstract])) OR (undesired same-sex sexual attraction[Title/Abstract])) OR (gay conversion therapy[Title/Abstract])) OR (sexual orientation therapy[Title/Abstract])) OR (sexual conversion therapy[Title/Abstract])) OR (cure therapy[Title/Abstract])) OR (gay cure[Title/Abstract])) OR (gay cure therapy[Title/Abstract])) OR (dehomosexualization[Title/Abstract])) OR (conversion therap*[Title/Abstract]))) OR (Gender-Affirming Care[MeSH Major Topic]).

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid synthesis, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

For any included guidelines, two reviewers assess each guideline using three domains in the AGREE II tool (stakeholder involvement, rigour of development, and editorial independence). Guidelines are classified as high quality if they were scored as 60% or higher across each of these domains.

For each evidence synthesis we included, we documented the dimension of the organizing framework with which it aligns, key findings, living status, methodological quality (using AMSTAR), last year the literature was searched (as an indicator of how recently it was conducted), availability of GRADE profile, and equity considerations using PROGRESS PLUS.

For AMSTAR, two reviewers independently appraise the methodological quality of evidence syntheses that are deemed to be highly relevant. Disagreements are resolved by consensus with a third reviewer if needed. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. High-quality evidence syntheses are those with scores of eight or higher out of a possible 11, medium-quality evidence syntheses are those with scores between four and seven, and low-quality evidence syntheses are those with scores less than four. 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 those pertaining to health-system arrangements or to economic and social responses. Where the denominator is not 11, an aspect of the tool was considered not relevant

by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, an evidence synthesis that scores 8/8 is generally of comparable quality to another scoring 11/11; both ratings are considered 'high scores.' A high score signals that readers of the evidence synthesis can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the evidence synthesis should be discarded, merely that less confidence can be placed in its findings and that it needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1): S8.)

For primary research (if included), we documented the dimension of the organizing framework with which it aligns, publication date, jurisdiction studied, methods used, a description of the sample and intervention, declarative title and key findings, and equity considerations using PROGRESS PLUS. We then used this extracted information to develop a synthesis of the key findings from the included syntheses and primary studies.

During this process we include published, pre-print, and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French, Portuguese, or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing. We excluded documents that did not directly address the research questions and the relevant organizing framework. All of the information provided in the appendix tables was taken into account by the authors in describing the findings in the rapid synthesis.

Appendix 2: Detailed data extractions from evidence syntheses about the health impacts of sexual orientation, gender identity, gender expression change efforts and so-called "conversion therapy" on 2SLGBTQI+ populations

Dimension of organizing framework	Declarative title and key findings	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Transgender
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
  ▪ Cisgender women
  ▪ Transgender men and women
  ▪ Non-binary
• **Age at first SOGIECE/conversion therapy**
  ○ Mean of 25 years
• **SOGIECE intervention/practice used**
  ○ Targeting both sexual orientation and gender identity
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Individual religious leader
  ○ Faith community member
	In addition to the resources wasted on sexual orientation and gender identity change efforts (SOGICE), the downstream consequences are associated with lifetime excess costs of USD $83,366 per individual at risk, primarily associated with suicidality, anxiety, severe psychological distress, depression, and substance abuse. From a population perspective, this translated to total costs of $650 million for SOGICE in 2021, with harms associated with an estimated economic burden of USD $9.23 billion
	• Among 28 published studies, which included 190,695 LGBTQ individuals, 12% (range, 7%–23%) of youths experienced SOGICE, initiated at a mean age of 25 years (range, 5–58 years), with a mean (SD) duration of 26 (29) months.
	• At least two types of SOGICE were administered to 43% of recipients.
	• The 28 publications identified comprised 190,695 LGBTQ individuals; among these publications, overall, 12% (range, 7%–23%) of youths experienced SOGICE, including individual or group psychotherapy (31%–100%), inpatient SOGICE (7%), and SOGICE administered by religious leaders (18%–81%).
	• Relative to LGBTQ individuals who did not undergo SOGICE, recipients experienced serious psychological distress (47% versus 34%), depression (65% versus 27%), substance abuse (67% versus 50%), and attempted suicide (58% versus 39%).
	• In the economic analysis, over a lifetime horizon with a 3% annual discount rate, the base-case model estimated an additional $97,985 lifetime costs per individual, with SOGICE associated with 1.61 quality-adjusted life years (QALYs) lost versus no intervention; affirmative therapy yielded cost savings of $40,329 with 0.93 QALYs gained vs no intervention.
	• With an estimated 508,892 youths at risk for SOGICE in 2021, the total annual cost of SOGICE is estimated at $650.16 million (2021 USD), with associated harms totalling an economic burden of $9.23 billion.
		No	6/10 AMSTAR	December 2020	No	None identified

• **2SLGBTQI+ group(s) affected** ○ Lesbian	Conversion practices remained prevalent in the past 20 years, ranging from 2% to 34% (median estimate of 8.5%) across 14 samples of sexual and gender minority populations; there is substantial heterogeneity in prevalence estimates,	No	7/10 AMSTAR	4 January 2022	No	Race, Indigenous

○ Gay ○ Bisexual ○ Transgender • **Other priority groups affected** ○ Gender modality ▪ Cisgender men ▪ Cisgender women ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE/conversion therapy** ○ Not informed • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity	which can be explained by contextual and compositional covariates, including country, gender modality and gender/sex assignment at birth, and race • The review identified 14 articles that reported prevalence estimates among sexual and gender minority populations and two articles that reported prevalence estimates from studies of mental health practitioners. • Prevalence estimates among sexual and gender minority populations samples ranged 2% to 34% (median: 8.5). • Prevalence estimates were greater in studies conducted in the U.S. (median: 13%), compared to Canada (median: 7%), and greater among transgender (median: 12%) compared to cisgender (median: 4%) sub-samples. • Prevalence estimates were greatest among people assigned male at birth, whether transgender (median: 10%) or cisgender (median: 8%), as compared to people assigned female at birth (medians: 5% among transgender participants, 3% among cisgender participants). Further differences were observed by race (medians: 8% among Indigenous and other racial minorities, 5% among white groups) but not by sexual orientation. • Median prevalence estimates were comparable across all three sexual orientation subgroups, i.e., asexual (n=3; 4%), gay/lesbian (n=9; 5%), and plurisexual (n=9; 4%). • Several studies reported stratified prevalence estimates of conversion practices by age; however, age categories were incongruous across studies and, therefore, could not be combined into summary measures. • Among nine studies that examined age-related patterns across the full life course, two found no difference in conversion practices prevalence by age at time of study, three found greater conversion practices prevalence among older sexual and gender minorities, two found greater conversion practices prevalence among younger sexual and gender minority people, and two found a curvilinear relationship between age and conversion practices prevalence, with the greatest prevalence observed among young adults, and lower prevalence observed among youth and older adults.					
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender • **Other priority groups affected** ○ Gender modality ▪ Cisgender men ▪ Cisgender women ▪ Transgender men and women	Studies that reported information about adverse effects of the intervention 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 • One study noted that a majority of 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 as a direct result of these interventions. Another study (2002) also noted typical negative outcomes of reparative therapies that include chronic depression, low self-esteem, difficulty sustaining relationships, and sexual dysfunction.	No	2/10 AMSTAR	Published April 2008	No	None identified

▪ Non-binary • **Age at first SOGIECE/conversion therapy** o Not pooled • **SOGIECE intervention/practice used** o Targeting both sexual orientation and gender identity • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner						
• **2SLGBTQI+ group(s) affected** o Not mentioned • **Other priority groups affected** o Gender modality ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE/conversion therapy** o Nine participants (in three studies) were under 10, and one participant (one study) was 42 and has attended gender identity services since 32 years old • **SOGIECE intervention/practice used** o Exclusively targeting gender identity • **Source of SOGIECE intervention/practice**	The mental health consequences of conversion therapies were poorly described, and no reports from the patients were included; the treatments did not appear to lead to any obvious change in their status as transgender people • This review included four studies (three studies describing only one case, and the other study describing seven children under 10 years). • Treatments in those studies were poorly described. • Although psychoanalysis, exposure therapy, and play psychotherapy were used to bring about this change, two of the included studies could not justify the nature of the therapies used, and none appropriately assessed mental health outcomes. • There was no assessment of the mental health consequences in studies included.	No	8/10 AMSTAR	June 2017	No	None Identified

○ Licensed healthcare practitioner						
	Protocol for a review The research questions for this review are: • What is the scope of SOGIECE globally? In response to this question, the review will estimate how many sexual gender minority people have been exposed, which sub-groups of sexual gender minorities experience higher rates of SOGIECE, and how estimates of SOGIECE vary over time and place. • What is the nature of SOGIECE globally? In response to this question, the review will describe when, where, how, and under what circumstances sexual gender minorities are exposed to SOGIECE.	No	No	Protocol published in January 2021	No	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender • **Other priority groups affected** ○ Gender modality ▪ Cisgender men ▪ Cisgender women ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE/conversion therapy** ○ Not pooled • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity	Five core themes relating to the mental health challenges faced by sexual and gender minority youth included (1) isolation, rejection, phobia, and need for support, (2) marginalization, (3) depression, self-harm and suicidality, (4) policy and environment, and (5) connectedness	No	6/10 AMSTAR	June 2018	No	None Identified

Appendix 3: Detailed data extractions from single studies about health impacts of sexual orientation, gender identity, gender expression change efforts and so-called "conversion therapy" on 2SLGBTQI+ populations

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations

• **2SLGBTQI+ group(s) affected**
  ○ Gay
  ○ Transgender
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
  ▪ Transgender women
• **Age at first SOGIECE**
  ○ Information not provided
• **SOGIECE intervention/practice used**
  ○ Targeting both sexual orientation and gender identity
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
	Publication date: April 1964
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		40 male participants who received electric aversion therapy (16 homosexuals and 14 transvestisms and transexuals)	Some participants manifested anxiety and depression during and after the electric aversion therapy
			• The authors did not measure the level of anxiety and depression among participants.
			• This study was from 1964 when homosexuality and transgenderism were qualified as deviant.
			• In this study, aversion therapy was offered to voluntary participants.
			• The study used an umbrella category for homosexuality and pedophiliac, without differentiating between these populations.
				None identified

• **2SLGBTQI+ group(s) affected**
  ○ Gay
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
• **Age at first SOGIECE**
  ○ 22–47 years, median 33
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
	Publication date: June 1968
	
	Jurisdiction studied: United Kingdom
	
	Methods used: Case series
		10 male homosexuals (22–47 years old) followed by at least one year of 30–40 sessions, each session 1–1.5 hours, 12 shocks per session	Anxiety was reported in eight patients and depression in five; three patients had a severe depression	None identified

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
	Publication date: June 2014	The sample consisted of 1,612 persons who took part in an online survey and met the eligibility requirements: (a) 18	Psychotherapeutic efforts to change are not successful and carry significant potential for serious harm in same-sex oriented individuals
			• 37% found psychotherapy to be moderate to severely harmful in coping with their same-sex attractions.
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations

• **Age at first SOGIECE**
  ○ 30 or older
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		years of age, (b) a history of same-sex attraction, (c) a history of LDS Church membership, and (d) completion of a majority of survey items		

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
• **Age at first SOGIECE**
  ○ 18–29
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Unlicensed healthcare practitioner
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
  ○ Family member(s)
  ○ Community-based program (e.g. clubs, sports teams)
	Publication date: April 2015
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		Sample consisted of 1,612 persons who took part in a comprehensive online survey	Sexual orientation change efforts are reported to be either ineffective or damaging
			• Private and religious change methods were the most common, started earlier, lasted for longer periods, and reported to be the most damaging and least effective.
				None identified

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Transgender
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
	Publication date: 2021
	
	Jurisdiction studied: Colombia
	
	Methods used: Cross-sectional; binary logistic
		4,160 adults from Colombia (cisgender gay men, lesbians, transgender men and women, and gender non-binary)	There was a high prevalence of suicidal ideation (56%), suicide planning (54%), suicide attempt (25%), and sexual orientation and gender identity change efforts (SOGICE) experiences (22%); suicide morbidity was higher among transgender men and gender non-binary participants; SOGICE experiences were associated with 69% increased odds of suicidal ideation, 55% increased odds of suicide planning, and 76% increased odds of suicide attempt
			• SOGICE experiences were positively associated with suicide morbidity after controlling for demographic variables.
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
▪ Cisgender women ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE** o 26.8 +/- 9.5 at the moment of the survey • **SOGIECE intervention/practice used** o Not specified • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner o Faith community member	regression analysis to assess the relationship between SOGICE and suicide morbidity for the overall sample and stratified by sexual and gender minority (SGM) group		• 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 behaviour was higher in the group that experienced SOGICE for all sexual and gender minority (SGM) groups, except for suicide planning among Gender nonbinary Assigned Male at Birth (GNB AMAB) participants, which was74%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. • The majority of participants (n=3691, 88.7%) were cisgender, 257 identified as Gender nonbinary (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. • Analyses of the 95% confidence intervals show that the negative impact of SOGICE experiences was particularly strong among cisgender gay and bisexual men for all suicide morbidity indicators, among transgender women for suicide planning, and among cisgender lesbian women for suicide attempts. • The study also assessed differences in the impact of SOGICE by provider (healthcare professional, religious leader, compared with both sources). The analyses showed significant differences only for suicide attempts among cis gender gay men, for whom receiving SOGICE from both sources had a worse impact than receiving SOGICE from healthcare professionals (AOR=1.78, p=0.008) or religious leaders (AOR=2.23, p<0.001) alone.	
• **2SLGBTQI+ group(s) affected** o Gay • **Other priority groups affected** o Gender modality ▪ Cisgender men • **Age at first SOGIECE**	Publication date: 1966 Jurisdiction studied: United Kingdom Methods used: Case series	36 male gay males	Six of 36 male gay males suffered from depression or anxiety • In those who 'improved' with conversion therapy (n=25) there were four cases of depression or anxiety. In those who 'unimproved' (n=11) there were two cases of depression or anxiety. • There were 10 participants that a Court referred to as part of a sentencing. • Mentions that it is unsuccessful in many homosexuals.	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
○ Below 30 (n=19), 30–40 (n=9), 40+ (n=8) • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner				
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual • **Age at first SOGIECE** ○ 30 or older • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner	Publication date: February 2012 Jurisdiction studied: United Kingdom Methods used: Qualitative	Seven male participants aged 65–97 participated in interviews	U.K. aversion therapies from 1949 to 1992 to revert male homosexuality has left patients emotionally troubled • All participants reported that all medical treatments had been unsuccessful in altering their sexual desires or behaviour. Most sought treatment owing to unsupportive and negative attitudes from society and family/friends.	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Transgender • **Age at first SOGIECE** ○ 30 or older • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner	Publication date: July 2013 Jurisdiction studied: United Kingdom Methods used: Qualitative	15 mental nurses (eight men and seven women) aged between 63 and 98 years were interviewed	Nurses who care for older GLBT need to be mindful and non-judgmental of some of the struggles this minority group may have lived through • Nurses limited their guilt concerning administering aversion therapies by adopting dehumanizing and objectifying language and by focusing on administrative tasks.	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian	Publication date: October 2022	Data were collected through an online survey of 3,948 New	There is an association between sexual orientation and gender identity change efforts, non-suicidal self-injury, and suicidality among adults	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
○ Gay ○ Bisexual ○ Transgender • **Other priority groups affected** ○ Gender modality ▪ Cisgender men ▪ Cisgender women ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE** ○ Under 18 ○ 18–29 • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner ○ Unlicensed healthcare practitioner ○ Faith-based organization ○ Individual religious leader ○ Faith community member ○ Family member(s) ○ Community-based program (e.g. clubs, sports teams)	Jurisdiction studied: New Zealand Methods used: Cross-sectional	Zealand gender- and sexuality-diverse youth	• Findings indicate that at least 3.0% of a contemporary youth sample have experienced sexual orientation and gender identity change efforts. The odds of suicidality and non-suicidal self-injury were highest when religious leaders suggested sexual orientation and gender identity change efforts.	
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay • **Other priority groups affected** ○ 30 or older • **Age at first SOGIECE** ○ Not reported • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation	Publication date: 20 May 2013 Jurisdiction studied: United States Methods used: Qualitative	The data for six of the participants was obtained in 2001 for the researcher's master's thesis; the other nine participants were interviewed in 2010 The participants from the 2001 study were obtained through snowball sampling	Sexual orientation change efforts (SOCE) was associated with dissociation from the authentic selves, derailment of an individual's discovery and development • Individuals who are conflicted about their same-sex attractions should be instead empowered to explore their authentic selves. • Clinicians should encourage an individual's sense of self, otherwise they should find another provider.	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
• **Source of SOGIECE intervention/practice** o Individual religious leader		from a pool of individuals who had attempted sexual orientation change within a specific Christian community in the Midwest; participants ranged in age at the time of the interviews from 33 to 44		
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay o Bisexual • **Other priority groups affected** o 30 or older • **Age at first SOGIECE** o Not reported • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** o Not reported	Publication date: 10 July 2014 Jurisdiction studied: United States Methods used: Quantitative (survey)	Participants met inclusion criteria if they had been through any type of intervention designed to change their sexual orientation from LGB to heterosexual and currently identified as LGB	Reorientation therapy (developing authentic self from having previously done conversion therapy) was helpful in developing a sense of connectedness and acceptance; however, there needs to be more community-based centres that offer reorientation therapies	None identified
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay o Bisexual o Transgender o Queer/questioning o Two Spirit • **Other priority groups affected** o 18–29 o 30 or older • **Age at first SOGIECE** o Adolescence and/or young adults • **SOGIECE intervention/practice used** o Targeting both sexual orientation and gender identity	Publication date: 19 April 2021 Jurisdiction studied: Canada Methods used: Qualitative	22 2SLGBTQ+ people with lived experience of SOGIECE	SOGIECE contributed to serious mental health illness such as anxiety, depression, and suicidality among people with lived experiences of these approaches • People with lived experiences of SOGIECE indicated that these approaches created or increased many health and social impacts, such as sense of 'brokeness,' relational challenges, and impaired mental health and well-being.	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
• **Source of SOGIECE intervention/practice** ○ Not reported				

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Transgender
  ○ Queer/questioning
• **Other priority groups affected**
  ○ Under 18
  ○ 18-29
• **Age at first SOGIECE**
  ○ Not reported
• **SOGIECE intervention/practice used**
  ○ Not reported
• **Source of SOGIECE intervention/practice**
  ○ Not reported
	Publication date: 8 July 2020
	
	Jurisdiction studied: United States
	
	Methods used: Quantitative (survey)
		Young LGBTQ individuals	A multivariate logistic regression found that the odds of suicidality among young LGBTQ individuals increased with the use of SOGIECE approaches
			• Those who underwent or were currently undergoing SOGIECE were twice as likely to report attempted suicide compared to people who had not experienced SOGIECE.
				Not reported

• **2SLGBTQI+ group(s) affected**
  ○ Transgender
• **Other priority groups affected**
  ○ Non-binary
• **Age at first SOGIECE**
  ○ Not reported
• **SOGIECE intervention/practice used**
  ○ Not reported
• **Source of SOGIECE intervention/practice**
  ○ Not reported
	Publication date: 8 July 2021
	
	Jurisdiction studied: United States
	
	Methods used: Quantitative (survey)
		Black, Latinx, and white transgender and gender non-binary adults	Non-religious and religious GICE were associated with reported increase of suicidal ideation; those exposed to non-religious GICE were associated with increased severe psychological distress across all racial groups
			• Non-religious GICE was harmful for all race groups, especially Black people.
				BIPOC communities

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Transgender
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
	Publication date: November 2020
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		This study did a quantitative analysis of the LGBTQ Institute Southern Survey	The prevalence of conversion therapy is still high in the southern states of the U.S.
			• The findings revealed that participants who undergo conversion therapy before age 18 are significantly more likely to experience serious mental illness. It was also revealed that newer generations of young people were more likely to recognize and report their experiences with sexual orientation or gender identity change efforts.
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
▪ Cisgender women ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE** o Under 18 • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner o Faith-based organization				
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay o Bisexual o Transgender • **Other priority groups affected** o Gender modality ▪ Cisgender men ▪ Cisgender women ▪ Transgender men and women ▪ Non-binary • **Age at first SOGIECE** o Under 18 • **SOGIECE intervention/practice used** o Not specified • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner o Faith-based organization	Publication date: 2022 Jurisdiction studied: Australia Methods used: Cross-sectional; multivariable logistic regression	4,370 cisgender LGBQA+ participants aged 14–21 years Data collected from September to October 2019 considering experiences in the last 12 months	Overall, 56.4% of participants reported suicidal ideation and 8.9% a suicide attempt in the past 12 months; those who had experienced conversion practices in the past 12 months reported higher levels of suicidal ideation or suicide attempts • The mean age of the sample was 17.3 years (standard deviation=14.1), and a large majority were born in Australia (88.4%). • Most participants (69.5%) were cisgender women; 38.6% of participants identified as bisexual, 19.8% as gay, 13.3% as lesbian, 8.0% as pansexual, 5.6% as queer, and 3.7% as asexual. • Overall, 22.4% of the participants reported experiencing SOGICE; of them, 48.8% received SOGICE from a religious leader, 31.1% from a healthcare provider, and 20.1% from both sources.	None identified
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay	Publication date: July 2022	Interviewed 42 LGBTQA+ through one-on-one and group interviews	Conversion practices are associated with severe spiritual harms such as moral injury and religious trauma in the LGBTQA+ community	Race/ethnicity/ culture/languag e

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
○ Bisexual ○ Queer/questioning • **Other priority groups affected** ○ BIPOC communities ▪ 30-59 ▪ Young adults (18–29) • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Faith-based organization	Jurisdiction studied: Australia Methods used: Qualitative		• Three themes were identified including 1) harm from spiritual practices; 2) harm from impairment of relationship with spiritual community; and 3) harm to spiritual self-concept, meaning, and experience.	
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner	Publication date: May 1995 Jurisdiction studied: United States Methods used: Cross-sectional	69 women and 70 men responded to a 15-item questionnaire	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 • No differences were found between clinical psychologists who received their degrees before 1970 and after 1978 in their views of homosexuality as a disorder or their use, or support of the use, of practices designed to change sexual orientation.	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender ○ Queer/questioning ○ Two Spirit ○ Intersex • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner	Publication date: 9 July 2021 Jurisdiction studied: Canada Methods used: Qualitative	A total of 22 adults who received conversion therapy participated in this study	Sexual or gender conversion therapy can negatively impact how individuals view themselves and their relationships with those around them • Conversion therapy occurs formally and informally. • Formal therapies included one-on-one therapy, group therapy, or medication to reduce sex drive, fasting, prayer, burning of sentimental photos, embodying normative characteristics, psychoanalysis, and more. • This could occur in communities, online, or in conferences. • Informal conversion therapy occurred in social settings encouraging cis and heteronormative ideology or medical centres denying gender-affirming care. • Individuals may self-initiate in conversion therapy out of fear of being rejected by their loved ones or to be aligned with their faith.	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
○ Unlicensed healthcare practitioner ○ Camp ○ Faith-based organization ○ Individual religious leader ○ Faith community member ○ Family member(s)				
• **2SLGBTQI+ group(s) affected** ○ Two Spirit ○ Lesbian ○ Gay ○ Bisexual ○ Transgender ○ Queer/questioning ○ Intersex • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity • **Source of SOGIECE intervention/practice**	Publication date: 18 September 2022 Jurisdiction studied: Canada Methods used: Qualitative; narrative analysis	A total of 22 individuals who had connections to sexuality and gender minority communities participated in this study	Individuals who experienced sexuality or gender conversion therapies describe challenges with self-loathing, internalized homonegativity, and identity-forming; and require significant time and support to reshape their narratives and identity positively	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual • **Other priority groups affected** ○ Gender modality ▪ Cisgender men ▪ Cisgender women • **Age at first SOGIECE** ○ Not specified • **SOGIECE intervention/practice used** ○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Not specified	Publication date: 2021 Jurisdiction studied: South Korea Methods used: Cross-sectional	2,168 participants (lesbian, gay, and bisexual adults)	Participants who had undergone SOGIECE showed 1.44 and 2.35 times higher prevalence of suicidal ideation and suicide attempts than those without such practices • More than 50% of the total 2,168 participants were cisgender women, younger than 30 years old, and lived in a metropolitan area. • The prevalence of having "been advised but not undergone SOCE" (9.3%) and having "undergone SOCE" (2.5%) differed significantly across several socio-demographic characteristics. • Lesbian participants showed a greater prevalence of SOGIECE experiences than bisexual participants. • For depressive symptoms, participants who had "been advised but not undergone SOCE" (adjusted PR [aPR]=1.25, 95% CI=1.09–1.44) and had "undergone SOCE" (aPR=1.26, 95% CI=0.97–1.63) were more likely to have such symptoms than those who had "never experienced" SOCE. • For suicidal ideation, participants who had "been advised but not undergone SOCE" reported 1.37 times (95% CI=1.16– 1.61) higher prevalence of suicidal ideation, compared with those without any experience of SOCE. In addition, those who had "undergone	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
			SOCE" showed 1.44 times (95% CI=1.06–1.95) greater prevalence of suicidal ideation than those who had never experienced SOCE. • The prevalence of suicide attempts was 1.79 times (95% CI=1.08–2.97) and 2.35 times (95% CI=1.06–5.22) higher among those who had advice on SOCE alone and those who had undergone SOCE, respectively, compared with those without such experiences.	
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay o Bisexual • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation	Publication date: February 2010 Jurisdiction studied: United States Methods used: Cross-sectional	A total of 263 participants completed this survey	Individuals who had received/anticipated negative family reactions, had high religious involvement, and were male and were racialized were more likely to participate in sexual reorientation therapy • Approximately 19.8% of participants participated in sexual reorientation therapy, with 44.2% of that subgroup participating in therapy more than once and 25% more than twice.	Race/ethnicity/ culture/language Gender/sex
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay • **Other priority groups affected** o Gender modality ▪ Cisgender men ▪ Cisgender women • **Age at first SOGIECE** o Ages 15–20 (n=5), 21–25 (n=8), 26–30 (n=10), 31–35 (n=8), 36–40 (n=3), 40+ (n=9) • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner	Publication date: June 1967 Jurisdiction studied: United Kingdom Methods used: Controlled trial	43 participants, gay (n=41) and lesbian (n=2) Ages 15–20 (n=5), 21–25 (n=8), 26–30 (n=10), 31–35 (n=8), 36–40 (n=3), 40+ (n=9) Follow-up at least 12 months	No description of the mental health of participants before or after the intervention • Required by a Court (n=18), pressured by wife or girlfriend (n=2), originally referred by psychiatric illness (n=4), and by the willing of the person (n=19). • The study does not differentiate gays from pedophiles. • Half of the participants were charged with a least one offense.	None identified
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay o Bisexual • **Other priority groups affected** o Gender modality ▪ Cisgender men	Publication date: 1968 Jurisdiction studied: United Kingdom Methods used: Case series	20 participants but not detailed description	Many patients showed depression, anger, and irritability during treatment, but those almost always subsided when electrical aversion therapy stopped; one patient attempted suicide	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
▪ Transgender men and women • **Age at first SOGIECE** o Not mentioned • **SOGIECE intervention/practice used** o Targeting both sexual orientation and gender identity • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner				
• **2SLGBTQI+ group(s) affected** o Gay • **Other priority groups affected** o Gender modality ▪ Cisgender men • **Age at first SOGIECE** o Ages 18 to 53, median 25 years old • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner	Publication date: 1972 Jurisdiction studied: Australia Methods used: Controlled trial	40 patients (18–53 years old, median 25 years old) were randomly assigned to receive apomorphine aversion or avoidance conditioning (with electric shocks) to reduce homosexual impulses Two weeks of aversion therapy and one-year follow-up 13 patients were arrested by the police for homosexual activity, nine on more than one occasion This study does not differentiate homosexual and pedophile	No description of the mental health of participants before or after intervention, nor of adverse effects of the intervention	None identified
• **2SLGBTQI+ group(s) affected** o Lesbian o Gay o Bisexual • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation	Publication date: 30 July 2013 Jurisdiction studied: United States Methods used: Cross-sectional	A total of 762 members of the American Association for Marriage and Family Therapy participated in this study	Negative beliefs about or not working with LBG clients were associated with a greater likelihood of believing that conversion therapy is ethical • The majority of participants (72.7%) reported conversion therapy to be unethical. • Approximately 3% of participants practiced conversion therapy.	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
• **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner				

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
• **Other priority groups affected**
  ○ People living in rural/remote communities
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
	Publication date: 5 August 2020
	
	Jurisdiction studied: United States
	
	Methods used: Qualitative thematic analysis
		A total of 21 pastors leading Mainline Protestant Christian congregations in rural locations were interviewed in this study	Pastors' experiences with their peers and knowledge of existing research led many to believe that conversion therapies are painful, ineffective, unethical, and could have negative mental health outcomes
			• Participants felt that psychiatrists and therapists should not be leading conversion therapy as it contradicts the values of their practice.
				None identified

• **2SLGBTQI+ group(s) affected**
  ○ Gay
• **Age at first SOGIECE**
  ○ Under 18
  ○ 18–29
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
	Publication date: 2 June 2020
	
	Jurisdiction studied: United States
	
	Methods used: Cohort study
		A total of 1,156 individuals completed this study
		
		Participants were primarily white, gay men
			Conversion therapy during early adulthood, involving psychological, group, and religion-based therapies is positively associated with mental health symptoms in gay men
			• Types of interventions included psychotherapy, group-based therapy, and religion-based therapies.
			• Conversion therapy was positively associated with depressive symptoms, posttraumatic stress disorder, and cumulative psychological disorders.
				None identified

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Camp
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
	Publication date: April 2000
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		A total of 226 therapists, community workers, and pastors completed this survey	Conversion therapy therapists, camp counsellors, and pastors do not report any adverse health, social, cost, or experiential outcomes of camps	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
• **Age at first SOGIECE**
  ○ Under 18
  ○ 18–29
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Camp
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
	Publication date: June 2000
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		A total of 882 participants completed this survey
		
		Participants were primarily male (78%) and Caucasian (86%)
			Young adults who self-initiated conversion therapies for sexual identity do not report any adverse health, social, cost, or experiential outcomes
			• Therapies included delivery from pastors and psychiatrists and self-directed interventions (e.g., conferences and literature).
				None identified

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
• **Age at first SOGIECE**
  ○ Under 18
  ○ 18–29
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
	Publication date: 29 August 2021
	
	Jurisdiction studied: Nigeria
	
	Methods used: Cross-sectional
		A total of 402 participants were involved in this study	Religious following and internalized homophobia were associated with minority stress, negative self-perception, and likelihood to self-initiate conversion therapy for youth in Sub-Saharan Africa
			• Participants with HIV were three times more likely to be forced into conversion therapy.
				None identified

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Transgender
• **Age at first SOGIECE**
  ○ Under 18
• **SOGIECE intervention/practice used**
	Publication date: 7 November 2018
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		A total of 245 adolescents, identifying as part of the LGBT community completed this survey	Therapies to change adolescents' sexual orientation initiated by parents and caregivers is associated with increased depressive symptoms, suicide ideation and decreased well-being, social support, and socio-economic status
			• This study did not find any increases in sexual behaviour or substance abuse.
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
○ Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** ○ Faith-based organization ○ Individual religious leader ○ Faith community member ○ Family member(s)				
• **2SLGBTQI+ group(s) affected** ○ Gay ○ Bisexual ○ Transgender ○ Queer/questioning ○ Intersex • **Other priority groups affected** ○ Immigrants and refugees • **Age at first SOGIECE** ○ Under 18 • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity • **Source of SOGIECE intervention/practice** ○ Unlicensed healthcare practitioner ○ Camp ○ Faith-based organization ○ Individual religious leader ○ Faith community member	Publication date: 3 June 2021 Jurisdiction studied: Canada Methods used: Cross-sectional	A total of 7,237 individuals completed this survey	Approximately one in 10 sexual and gender minority men in Canada had exposure to sexuality or gender conversion therapy in their young adulthood; this prevalence is more likely for individuals with financial issues, transgender persons, and racialized individuals • Approximately 21% of participants had exposure to conversion therapy for either sexuality (77.3%), gender (5.9%), or both (16.8%). • Most individuals experienced conversion therapy in a religious setting (67%), followed by licensed healthcare professionals (30%) and unlicensed healthcare professionals (20.3%). • Licensed healthcare professionals performed gender conversion therapy by withholding gender-confirming treatment. • Individuals with lower socio-economic status, non-binary or transgender status, immigrants, or racialized minorities were more likely to be exposed to conversion therapies.	Race/ethnicity/ culture/language Gender/sex Socio-economic status
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender ○ Queer/questioning ○ Two Spirit ○ Intersex • **SOGIECE intervention/practice used**	Publication date: 23 February 2022 Jurisdiction studied: United States Methods used: Qualitative	A total of 15 organization ambassadors, board members, community organizers, and marketing specialists completed this study	Grassroots activism social groups improve resiliency after conversion therapy in young adults by offering coping strategies, social support, and a sense of control	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
○ Targeting both sexual orientation and gender identity				
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender • **Age at first SOGIECE** ○ Under 18 ○ 18–29 • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity • **Source of SOGIECE intervention/practice** ○ Licensed healthcare practitioner ○ Faith-based organization ○ Individual religious leader ○ Faith community member	Publication date: 6 September 2022 Jurisdiction studied: United States Methods used: Cohort study	A total of 1,518 interviews were included in this study	Individuals who completed conversion therapy are likely to experience suicidal behaviours, particularly individuals with a history of mental illness, emotional abuse, sexual abuse, and victimization, and are males • Participants primarily received conversion therapy delivered by a religious leader (69%), and 19.2% from a healthcare professional. • Approximately half of the participants experienced conversion therapy as a minor (mean: 14.5) and the other half as an adult (mean: 21.8).	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender • **SOGIECE intervention/practice used** ○ Targeting both sexual orientation and gender identity	Publication date: 6 August 2021 Jurisdiction studied: Brazil Methods used: Cross-sectional	A total of 249 college students participated in this study one; 247 in study two; and 210 in study three	Gay prejudice and high levels of conservativeness are positively associated with agreement with conversion therapy in college students	None identified
• **2SLGBTQI+ group(s) affected** ○ Lesbian ○ Gay ○ Bisexual ○ Transgender • **Age at first SOGIECE** ○ Under 18 ○ 18–29 ○ 30 or older	Publication date: 11 September 2021 Jurisdiction studied: United States Methods used: Cross-sectional	A total of 27,715 transgender individuals participated in this study	Both life and childhood exposure to sexual orientation or gender conversion therapy were associated with lifetime suicide attempts in transgender individuals • Most participants had therapy initiated by a religious leader. • 14% of participants had exposure to conversion therapy for either sexuality or gender. • Exposure to conversion therapy under the age of 10 was unlikely.	None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations

• **SOGIECE intervention/practice used**
  ○ Targeting both sexual orientation and gender identity
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Unlicensed healthcare practitioner
  ○ Camp
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member				

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Queer/questioning
• **Age at first SOGIECE**
  ○ 10–14 years old (n=11), 15–18 years (n=15), 19–22 (n=6), 23+ (n=11)
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Unlicensed healthcare practitioner
  ○ Camp
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
	Publication date: 2022
	
	Jurisdiction studied: Hong Kong
	
	Methods used: Cross-sectional
		219 individuals (170 AMAB, 49 AFAB), 16 years of age or above, identified as lesbian, gay, bisexual, or otherwise not heterosexual,
		17–24 years (n=53), 25–34 years (n=118), 35+ (n=48)
			Participants who had experienced SOCE showed significantly higher levels of internalized homonegativity, identity uncertainty, and difficult process subscales of the Lesbian, Gay, Bisexual Identity Scale than their counterparts who had not experienced SOCE; they were also at a greater risk of developing depressive symptoms and suicidal ideation
			• Among 219 sexual minority individuals who completed the study, 21.9% (n=48) had experienced SOCE and 78.1% (n=171) had not experienced SOCE.
			• Specifically, 19.6% (n=43) initiated SOCE themselves, and 11.9% (n=26) were advised by others to have SOCE.
			• Of 43 participants who initiated SOCE themselves, 54.2% reported having had their first SOCE engagement at or before the age of 18 years, and 37.2% spent more than 12 months for SOCE.
			• They indicated family acceptance (or less family rejection) (48.8%), avoidance of discrimination (48.8%), religiosity (46.5%), and desire to have a normal heterosexual life (46.5%) as the most common reasons for initiating SOCE. Most of them engaged in self-initiated SOCE through religious methods (e.g., prayer, fasting, exorcism) (48.8%), and suppression of individual temperament and gender expression (41.9%).
			• For sexual minority individuals who were advised to undergo SOCE, 46.2% had their first SOCE at or before the age of 18 years.
			• More than half of them indicated that the duration of SOCE lasted for 6 to 12 months (26.9%) or more than 12 months (26.9%). They were mostly advised by family members (50.0%), followed by religious leaders (42.3%), members of their religious community (34.6%), and counsellors (34.6%).
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
			• They were mainly motivated by the desire for a normal heterosexual life (69.2%), religiosity (53.8%), and the belief that homosexuality violates laws of nature (50.0%). • Most of them engaged in SOCE through religious methods (e.g., prayer, fasting, exorcism) (50.0%), sought psychological counselling (42.3%), and developed heterosexual relationships (42.3%). • A significantly higher proportion of sexual minority individuals who had undergone SOCE (83.3%) had suicidal ideation than those who had not undergone SOCE (59.6%) ($\chi2=9.22$, $p=0.002$). Similarly, sexual minority • Individuals who had experienced SOCE (27.1%) reported a higher prevalence of suicidal plans compared with those who had not experienced SOCE (14.0%) ($\chi2=4.55$, $p=0.03$). • No significant differences in suicidal attempts were found between the two groups ($\chi2=0.63$, $p=0.43$). • Most of the participants perceived that their time was being wasted (41.7%), developed shame, guilt, and self-hatred (35.4%), and felt disappointed in themselves (31.3%) during the process of SOCE.	

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Queer/questioning
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
  ▪ Cisgender women
• **Age at first SOGIECE**
  ○ Experiencing SOCE across the age cohorts of Generations: 6.2% among those aged 18 to 25 years, 8.3% among those aged 34 to 41 years, and 7.8% among those aged 52 to 59 years
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
	Publication date: 2020
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		1,518 cisgender sexual minorities recruited between 28 March 2016, and 30 March 2018 through Generation Survey
		
		Was used weighted multiple logistic regression analyses to assess the independent association of SOCE with suicidal ideation and suicide attempt while controlling for demographic variables
			Over the lifetime, sexual minorities who experienced SOCE reported a higher prevalence of suicidal ideation and attempts than did sexual minorities who did not experience SOCE
			• Approximately 7% experienced SOCE; 80.8% reported SOCE from a religious leader, and 30% from a healthcare provider.
			• After adjusting for demographics and adverse childhood experiences, sexual minorities exposed to SOCE had nearly twice the odds of lifetime suicidal ideation, 75% increased odds of planning to attempt suicide, 88% increased odds of a suicide attempt with minor injury, and 67% increased odds of suicide attempt resulting in moderate or severe injury compared with sexual minorities who did not experience SOCE.
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
• **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner o Faith-based organization o Individual religious leader o Faith community member				
• **2SLGBTQI+ group(s) affected** o Gay o Bisexual men • **Other priority groups affected** o Gender modality ▪ Cisgender men • **Age at first SOGIECE** o Average was 22.67 years • **SOGIECE intervention/practice used** o Exclusively targeting sexual orientation • **Source of SOGIECE intervention/practice** o Licensed healthcare practitioner o Faith-based organization o Individual religious leader o Faith community member	Publication date: June 2021 Jurisdiction studied: United States Methods used: Cross-sectional	1,237 middle-aged and older MSM enrolled in the Multicentre AIDS Cohort Study	Among participants, 17.7% reported lifetime conversion therapy, of which the average start of therapy age was 22.67 (sd=10.56) years, 25.8% reported therapy durations of six or more months, 37.7% reported session frequencies one or more sessions per week, and 35.9% indicated that undergoing therapy was either a little or not at all their decision • This study sought to describe the prevalence and characteristics of conversion therapy experienced among middle-aged and older men who have sex with men (MSM) in the United States. • Nearly 18% of the middle-aged and older MSM (n=219) from the sample reported any lifetime experience of conversion therapy. • The most common therapy types included psychotherapies (39.4%), group-based therapies (23.1%), and religion-based therapies (18.4%), while smaller numbers reported gender-role reinforcement (7.0%), aversion therapies (2.6%), pharmacological therapies (4.1%), and other therapies (5.4%). • The mean age of starting conversion therapy was 22.67 (sd=10.56) years. • 75% reported a therapy duration that lasted greater than one month and nearly 40% reported frequencies of at least one session per week. • Over a third (35.6%) of those who reported lifetime conversion therapy indicated that the decision to seek out these therapies was only a little or not at all their decision. • Unadjusted models demonstrated that being HIV-positive had increased odds of reporting lifetime conversion therapy compared to HIV-negative men (odds ratio [OR]=1.50, 95% CI: 1.11–2.01). • With regard to race, Non-Hispanic Black (OR=2.59, 95% CI: 1.85–3.64), Hispanic Black (OR=6.63, 95% CI: 1.89–23.30), and participants reporting as Other Race/Ethnicity (OR=3.12, 95% CI: 1.70–5.76) were more likely than Non-Hispanic White participants to report lifetime conversion therapy.	Race, ethnicity

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations
			• Men who enrolled in the Cohort study after 2001 were more likely to report conversion therapy experiences compared to those who enrolled before 1987 (OR=2.42, 95% CI: 1.80–3.26). • In the multivariable model, HIV status was no longer statistically significantly associated with lifetime conversion therapy experiences (adjusted OR=1.20, 95% CI: 0.88, 1.64). • Race/ethnicity, enrollment wave, and education level remained statistically associated with reporting lifetime conversion therapy.	

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
  ▪ Cisgender women
• **Age at first SOGIECE**
  ○ Range 11–52 years old, with a mean of 23 years
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
	Publication date: July 2014
	
	Jurisdiction studied: United States
	
	Methods used: Qualitative research; content analysis
		38 individuals (31 male and seven females)	Religious beliefs were frequently cited as the reason for seeking reorientation therapy; harmful aspects of reorientation therapy included experiences of shame and negative impacts on mental health; common reasons for identifying as LGB after the therapy included self-acceptance and coming to believe that sexual orientation change was not possible
			• Sources of SOCE: Religious leader (50 sessions, 22.1% of all sessions), religious individual without leadership duties (n=48, 21.2%), licensed counsellor (n=38, 16.8%), pastoral counsellor (n=29, 12.8%), peer counsellor (n=21, 9.3%), marriage and family therapist (n=18, 8.0%), psychologist (n=11, 4.9%), social worker (n=6, 2.7%), and psychiatrist (n=5, 2.2%).
			• Reasons for seeking SOCE:
			  ○ Religious beliefs (n=29, 80.6%): "Being gay was a sin and I couldn't be a Christian and gay."
			  ○ Desire for a "normal" heterosexual life (n=14, 38.9%): ". . . I wanted to live a 'normal' life, married with children – it was my dream."
			  ○ Family acceptance/rejection (n=14, 38.9%): "Wanted to be 'normal' so that my family and parents would love me again."
			  ○ Religious community acceptance/rejection (n=11, 30.6%): "I wished to continue actively in my church which I could not continue to do in that church as a gay man."
			  ○ Mental health (depression, guilt, fear) (n=10, 27.8%): "I felt defective, abnormal, depressed, and self-hatred toward myself and wanted to change."
			  ○ Social stigma (n=7, 19.4%): ". . . social stigma of being perceived as queer, deviate, effeminate."
			  ○ In a straight marriage or family (n=4, 11.1%): "I was married with 4 kids."
			  ○ Being gay associated with negative or risky health behaviours (n=3, 8.3%): ". . . fear of the 'gay lifestyle' (i.e., disease, promiscuity, loneliness, drug/alcohol abuse)."
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations

			• Harms with SOCE:
			  ○ 17 themes emerged; the most frequently identified short-term harms resonated with themes that represented "mental health (depression, anxiety)" and "shame, guilt, self-hatred," each with 17 occurrences (15.0%).
			  ○ In the long term, participants identified that 24 episodes (21.2%) were not harmful.
			  ○ The next most frequently cited long-term harm was "shame, guilt, and self-hatred" (21 occurrences, 18.6%).
			  ○ Suicide was specifically mentioned as a harmful aspect of reorientation episodes (four occurrences in both the short and long term, 3.5%).	

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Queer/questioning
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
  ▪ Cisgender women
  ▪ Transgender men and women
  ▪ Non-binary
• **Age at first SOGIECE**
  ○ 78% of youth who underwent conversion therapy reported that it was when they were under the age of 18
• **SOGIECE intervention/practice used**
  ○ Targeting both sexual orientation and gender identity
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
	Publication date: 2020
	
	Jurisdiction studied: United States
	
	Methods used: Cross-sectional
		Over 40,000 youth 13–24 years old	10% of LGBTQ youth reported receiving conversion therapy from someone who tried to change their sexual orientation or gender identity to straight or cisgender
			• Youth who attempted suicide were 28% of those who experienced conversion therapy and 12% of those who had not gone to conversion therapy.
			• Types of formal conversion efforts reported by LGBTQ youth who underwent conversion therapy: not sure 4%, gender identity 8%, both sexual orientation and gender identity 27%, and sexual orientation 61%.
			• LGBTQ youth underwent conversion therapy led by the following individuals: healthcare professional (3%), outside religious leader (5%), personal pastor or priest (5%).
			• 78% of youth who underwent conversion therapy reported that it was when they were under the age of 18.
				None identified

Dimension of organizing framework	Study characteristics	Sample description and intervention	Declarative title and key findings	Equity considerations

• **2SLGBTQI+ group(s) affected**
  ○ Lesbian
  ○ Gay
  ○ Bisexual
  ○ Queer/questioning
• **Other priority groups affected**
  ○ Gender modality
  ▪ Cisgender men
  ▪ Cisgender women
• **SOGIECE intervention/practice used**
  ○ Exclusively targeting sexual orientation
• **Source of SOGIECE intervention/practice**
  ○ Licensed healthcare practitioner
  ○ Faith-based organization
  ○ Individual religious leader
  ○ Faith community member
	Publication date: 2002
	
	Jurisdiction studied: United States
	
	Methods used: Qualitative research; content analysis
		202 consumers of conversion therapies	Most people who underwent conversion therapies failed to change their sexual orientation, and many reported that they associated harm with conversion interventions, while a minority reported feeling helped, although not necessarily with their original goal of changing sexual orientation
			• The study found evidence that many consumers of failed sexual orientation therapies experienced them as harmful.
			• Areas of perceived psychological harm included depression, suicidality, and self-esteem.
			• In the case of aversive conditioning and covert sensitization, harm included intrusive flashback-like negative imagery that was associated with serious long-term sexual dysfunction.
			• Areas of perceived social harm included impairment in intimate and non-intimate relationships.
			• Some religious participants also reported experiencing spiritual harm as a result of religious therapy.
				None identified

Appendix 4: Documents excluded at the final stage of reviewing

Title	Exclusion reason
Aversion therapy. Council on Scientific Affairs	Wrong study design
Aversion therapy. AMA Council on Scientific Affairs	Wrong population
Ending LGBT conversion therapies	Non-empirical
Statement on conversion therapy	Wrong study design
Hormonal changes resulting from transgender conversion therapy may represent a gap in the biological effects of radiation understanding	Wrong study design
Transgender surgery-not the benchmark for gender marker determination	Non-empirical
Transporting the burden of justification: The unethicality of transgender conversion practices	Wrong study design
Interrogating gender-exploratory therapy	Wrong study design
Nursing implications in the application of conversion therapies on gay, lesbian, bisexual, and transgender clients	Wrong study design
Sexual identity or religious freedom: could conversion therapy ever be morally permissible in limited urgent situations?	Wrong study design
Regulations restrict practice of conversion therapy	Wrong study design
Sexual reorientation therapy: An orthodox perspective	Wrong study design
LGBTQ+ conversion therapy and applied behavior analysis: A call to action	Wrong study design
Banning sexual orientation therapy: Constitutionally supported and socially necessary	Wrong study design
Moving beyond a systematic review of sexual reorientation therapy	Non-empirical
Gender conversion therapy: Why is banning it so divisive?	Wrong study design
Legal requirements to change gender: An abuse of human rights?	Non-empirical
Sexual orientation and gender identity change efforts are unethical and harmful	Wrong study design
Some experiences in the use of aversion therapy in male homosexuality, exhibitionism and fetishism-transvestism	No full text
Prohibition of gender-affirming care as a form of child maltreatment: Reframing the discussion	Non empirical

Title	Exclusion reason
Doctor anonymous: Creating contexts for homosexuality as mental illness	Wrong study design
The charisma and deception of reparative therapies: when medical science beds religion	Wrong study design
The cure of homosexuality	No full text
The practice and ethics of sexual orientation conversion therapy	Wrong study design
Science meets practice in determining effectiveness of sexual orientation change efforts	Non empirical
Aversion therapy for homosexuality	Non empirical
Therapeutic implications of viewing sexual identity in terms of essentialist and constructionist theories	Wrong study design
Are we ready for sexual reorientation therapy in the U.S. military? A response to David W. Lutz	Wrong study design
Case of homosexuality treated by aversion therapy	Wrong study design
Aversion therapy for homosexuality	Wrong study design
[The history of reorientation therapy]	Wrong study design
A note on aversion therapy	Wrong study design
A case of homosexuality treated by in vivo desensitization and assertive training	Wrong study design
New Italian lesbian, gay and bisexual psychotherapy guidelines: A review	Wrong study design
The Catholic Church, the American military, and homosexual reorientation therapy	Non empirical
Aversion therapy of homosexuality	Wrong study design
A need for orientation: The WMA statement on natural variations of human sexuality	Non empirical
Preliminary report on a new aversion therapy for male homosexuals	Wrong study design
Aversion therapy for homosexual impulses	Wrong study design
Subjective and penile plethysmograph responses to aversion therapy for homosexuality: a follow-up study	No full text
Aversion therapy of homosexuality	Wrong study design

Title	Exclusion reason
Banning conversion therapy for trans people	No full text
Reshaping time: Recommendations for suicide prevention in LBGT populations. Reflections on "Suicide and Suicide Risk in Lesbian, Gay, Bisexual, and Transgender Populations: Review and Recommendations" from Journal of Homosexuality 58(1)	Wrong study design
Aversion therapy. Ghost of gay 'sickness' haunts nursing	No full text
The ethics of conversion therapy	Non empirical
Freud and sexual reorientation therapy	Wrong study design
Disaffirming gender: Somatic incongruence as a co-function of ideological congruity	Non empirical
Psychiatry, psychotherapy and the criminalisation of 'conversion therapy' in Australia	Wrong study design
Conversion therapy for homosexuality: serious violation of ethics	Non empirical
Launch of IRCT report on conversion therapy	Wrong study design
British mental healthcare responses to adult homosexuality and gender non-conforming children at the turn of the twenty-first century	Wrong study design
Legal and ethical concerns about sexual orientation change efforts	Wrong study design
Better understanding of the scope and nature of LGBTQA+ religious conversion practices will support recovery	Wrong study design
Aversion therapy for sexual deviations	No full text
Homosexual aversion therapy. Electric shock technique	No full text
Recent challenges to traditional assumptions about homosexuality: Some implications for practice	Wrong study design
Sexual reorientation therapy: Response to Carlton	Wrong study design
Conversion therapy revisited: Parameters and rationale for ethical care	Wrong study design
Motivational, ethical, and epistemological foundations in the treatment of unwanted homoerotic attraction	Wrong study design
Moving back to science and self-reflection in the debate over sexual orientation change efforts	Wrong study design
Knowing what we do not know about sexual orientation change efforts	Wrong study design
The treatment of homosexuality and associated perversions by psychotherapy and aversion therapy	Wrong study design

Title	Exclusion reason
New laws that prohibit conversion therapy pose no material risk to evidence-based and clinically appropriate practice	Wrong study design
Aversion therapy: punishing of people to change behavior gains use, controversy	No full text
[Reorientation therapy--ethically inexcusable?]	No full text
[Reorientation therapy is professionally and ethically inexcusable]	Non empirical
A safe bet? Transgender and gender diverse experiences with inclusive therapists	Wrong intervention
Picking up the pieces...after aversion therapy	No full text
Aversion therapy for homosexual impulses	Wrong study design
Changing medical practice, not patients – putting an end to conversion therapy	Wrong study design
Personality characteristics of male homosexuals referred for aversion therapy: a comparative study	No full text
[Homosexuality and "reorientation therapy"—again]	Wrong study design
Reflection on a personal experience of surviving contemporary conversion practices in Australia	Wrong study design
A request for "conversion therapy"	Wrong study design

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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