



Summary of Findings: A Review of Scientific Evidence of Conversion Therapy

EXECUTIVE ORDER 21-25

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Summary of Findings: A Review of Scientific Evidence of Conversion Therapy

EO 21-25

A report to the Governor, Lieutenant Governor, and Legislature summarizing the literature on the scientific evidence about the safety and effectiveness of conversion therapy and its public health effects, and approaches that other jurisdictions have taken to enforcing prevention of conversion therapy for minors and vulnerable adults.

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1. Introduction

On July 15, 2021, Governor Tim Walz signed Executive Order (EO) 21-25¹ to protect vulnerable Minnesotans from conversion therapy. Minnesota's EO is largely adapted from California's Senate Bill (S.B.) 1172, passed by the California Legislature and signed into law in California by then Governor Brown (2012). Conversion therapy, practiced by mental health professionals or practitioners, is also known as reparative therapy, aversive therapy, or sexual orientation change efforts. Conversion therapy is intended to change a person's sexual orientation, gender identity, or gender expression.

In Minnesota, several boards regulate professionals engaged in therapy, counseling, and behavior modification: the Board of Behavioral Health and Therapy (Minn. Stat. §§ 148B.50-148.593); the Board of Marriage and Family Therapy (Minn. Stat. §§ 148B.29-148B.392); the Board of Psychology (Minn. Stat. §§ 148.88-148.981); and the Board of Social Work Practice (Minn. Stat. Ch. 148E). Regulation of these professions is deemed necessary to protect the health, safety, and welfare of the public when they receive mental health and behavioral services. All boards are authorized to adopt rules and to carry out their mission through effective licensure and enforcement of statutes and rules that ensure competent and ethical practice. Until such time as the Legislature passes laws or the boards adopt rules from the Legislature that govern licensees' use of conversion therapy, EO 21-25 describes the specific practice parameters for mental health counselors and practitioners in Minnesota. The principals described in EO-21-25 also apply to any conversion therapy modalities undertaken by Unlicensed Complementary and Alternative Health Care Practitioners (Minn. Stat. Ch. 146A). These practitioners are not licensed but may be disciplined by the Commissioner of the Health Department.

This report (in **Section 2**) summarizes the literature on the scientific evidence about the safety and effectiveness of conversion therapy and its public health effects, and (in **Section 3**) identifies approaches other jurisdictions have taken to enforce prevention of conversion therapy for minors and vulnerable adults. EO 21-25 directs the Minnesota Department of Health (MDH) to use its powers, authorities, and duties to the fullest extent possible to take all appropriate actions to protect Minnesotans from conversion therapy.

2. Literature review

a. Safety and effectiveness of conversion therapy

To accomplish this literature review, MDH searched the following data bases: New England Journal of Medicine, British Medical Journal, American Psychological Association (APA), American Medical Association, PubMed, PH Reports, American Public Health Association, Google Scholar, and Safety Lit, and searched for the following

¹ [Executive Order 21-25 9 \(https://mn.gov/governor/assets/EO%2021-25%20Final%20Signed%20%28002%29_tcm1055-489794.pdf\)](https://mn.gov/governor/assets/EO%2021-25%20Final%20Signed%20%28002%29_tcm1055-489794.pdf). Accessed March 25, 2022.

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terms in various arrays and configurations: conversion therapy, scientific evidence, safety, effectiveness, public health effects.

Conversion therapy is the practice of attempting to change an individual's sexual, gender identity, or gender expression. Conversion therapy is based on the now discredited belief, then embedded in the Diagnostic and Statistical Manual of Mental Illness (DSM), that being lesbian, gay, bisexual, transgender and queer or questioning (LGBTQ+) is an illness that should be cured. This classification was removed from the DSM in 1973. In subsequent years, professional organizations representing mental health professions have explicitly repudiated the position that homosexuality is a mental disorder.² This conclusion does not support the rationale for employing conversion therapy as a "cure."³ In a 2018 policy statement, the American Academy of Child and Adolescent Psychiatry stated that it found "no evidence to support the application of any "therapeutic intervention" operating under the premise that a specific sexual orientation, gender identity, and/or gender expression is pathological."⁴

Even with the watermark change to the DSM, the practice of conversion therapy has continued. Up until approximately the 1990s, conversion therapy included physical modalities, such as lobotomy and aversive conditioning, through use of electric shock, ice baths, freezing, burning with metal coils, and hard labor. The intent of the latter was to reduce homosexual feelings by conditioning the subject to associate such feelings with pain. Most medical professionals, mental health professionals, and faith leaders concur that the sexual orientation change efforts that include practices of emotional, psychological, or physical pain or deprivation are

² Anton, B. S. (2010). Proceedings of the American Psychological Association for the legislative year 2009: Minutes of the annual meeting of the Council of Representatives and minutes of the meetings of the Board of Directors. *American Psychologist*, 65, 385–475. [doi:10.1037/a0019553](https://doi.org/10.1037/a0019553)

³ Human Rights Campaign. [Policy and Position Statements on Conversion Therapy \(https://www.hrc.org/resources/policy-and-position-statements-on-conversion-therapy\)](https://www.hrc.org/resources/policy-and-position-statements-on-conversion-therapy). Accessed March 29, 2022.

⁴ American Academy of Child & Adolescent Psychiatry. 2018. www.aacap.org/AACAP/Policy_Statements/2018/Conversion_Therapy.aspx. Accessed March 29, 2022.

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both ineffective and harmful.^{5 6 7 8 9} These are no longer considered appropriate practice. Since the mid-1990s, most conversion therapy practices have used counseling and talk therapy.¹⁰

Efficacy. In 1991, the author of an early comprehensive examination of conversion therapy concluded: “There is no evidence from any of the studies reviewed here to suggest that sexual orientation can be changed.”¹¹ Nearly 20 years later, in 2009, a task force of the APA conducted a systematic review of the peer-reviewed journal literature on sexual orientation change efforts, particularly during more recent years. The task force noted a dearth of scientifically sound research on the safety of sexual orientation change efforts (SOCE), “because no study to date of adequate scientific rigor has been explicitly designed to do so.”¹² Relying on the few studies it deemed “true experiments or quasi-experiments,” all conducted from 1969 to 1978, the task force concluded that it is “unlikely that individuals will be able to reduce same sex attractions or increase other-sex sexual attractions through SOCE.” The APA resolved “there is insufficient evidence to support the use of psychological interventions to change sexual orientation.”¹³ Mainstream mental health organizations support this conclusion.^{14 15} MDH did not find scientific studies to support the effectiveness of conversion therapy practices.

Harm. In light of the shift away from physical modalities noted above, the analysis of harm presented herein is restricted to more recent studies which are less likely to include individual subject to physical modalities. A recent nationwide cross-sectional study queried the use of conversion therapy among transgender persons and

⁵ Cella AS. *A voice in the room: the function of state legislative bans on sexual orientation change efforts for minors.* American Journal of Law & Medicine, 40(2014): 113-140.

⁶ American Medical Association. *Health care needs of lesbian, gay, bisexual and transgender populations.* H-160.991. 2017.

⁷ Byne W, Bradley SJ, Coleman E, et al; *Report of the American Psychiatric Association Task Force on Treatment of Gender Identity Disorder.* Arch Sex Behav. 2012;41 (4):759-796.

⁸ American Academy of Child & Adolescent Psychiatry. 2018.

⁹ Rafferty J; Committee on Psychosocial Aspects of Child and Family Health; Committee on Adolescence; Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness. *Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents.* Pediatrics. 2018;142(4):e20182162.

¹⁰ Cella AS. *A voice in the room: the function of state legislative bans on sexual orientation change efforts for minors.* American Journal of Law & Medicine, 40(2014): 113-140.

¹¹ Haldeman DC, p. 159.

¹² American Psychological Association Task force. [Appropriate Therapeutic responses to Sexual Orientation](https://www.apa.org/pi/lgbt/resources/therapeutic-response.pdf) (<https://www.apa.org/pi/lgbt/resources/therapeutic-response.pdf>). 2009. Accessed March 29, 2022.

¹³ Anton BS, p. 29.

¹⁴ National Association of Social Workers. [Sexual Orientation Change Efforts \(SOCE\) and Conversion Therapy with Lesbians, Gay Men, Bisexuals, and Transgender Persons](https://www.socialworkers.org/LinkClick.aspx?fileticket=yH3UsGQQmYI%3D) (<https://www.socialworkers.org/LinkClick.aspx?fileticket=yH3UsGQQmYI%3D>). 2015. Accessed March 31, 2022.

¹⁵ American Academy of Child & Adolescent Psychiatry. 2018.

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found that, for transgender adults who recalled experiencing conversion therapy efforts before they were 10 years of age, exposure to conversion therapy was significantly associated with an increased risk of suicide attempt later in life.¹⁶ The study design has limitations; however, the findings suggest that adverse mental health outcomes in adulthood are associated with experiences of conversion therapy in childhood. A parallel study (with similar design limitations) focused on youth and young adults (ages 13-24) found that those who had experienced conversion therapy were more than twice as likely to report having attempted suicide and to having multiple suicide attempts.¹⁷ A recent meta-analysis of 28 published studies examined the consequences of sexual orientation and gender identity change efforts (SOGICE) among LGBTQ+ individuals in the United States.¹⁸ The studies included 190,695 LGBTQ+ individuals, of whom 12% experienced SOGICE. Based on participant self-report, the meta-analysis found that, compared to LGBTQ+ individuals who did not undergo SOGICE, those who did were more likely to experience serious psychological distress (47% vs 34%) or depression (65% vs 27%); more likely to engage in illicit drug use (67% vs 50%); more likely to attempt suicide (58% vs 39%); and more likely to die from suicide (0.9% vs. 2.5%). Limitations of this study include the assumption of the same likelihood of adverse outcomes regardless of SOGICE method.

While studies that meet the rigorous standards required for scientific certainty are few, scientific, medical, and education communities reject conversion therapy because it lacks scientific validation, poses health risks to the

¹⁶ 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. doi:10.1001/jamapsychiatry.2019.2285

¹⁷ Green AE, Price-Feeney M, Dorison SH, Pick CJ. *Self-Reported Conversion Efforts and Suicidality Among US LGBTQ Youths and Young Adults*. American Journal of Public Health. 2018; 110, no. 8 (August 1, 2020): pp. 1221-1227. <https://doi.org/10.2105/AJPH.2020.305701>

¹⁸ Forsythe A, Pick C, Tremblay G, Malaviya S, Green G, Sanman K. *Humanistic and Economic Burden of Conversion Therapy Among LGBTQ Youths in the United States*, JAMA Pediatrics, Published online March 7, 2022. [doi:10.1001/jamapediatrics.2022.0042](https://doi.org/10.1001/jamapediatrics.2022.0042)

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people and communities involved, and contributes to health and social inequities.^{19 20 21 22 23 24 25 26} Further, in 2015, President Obama called for an end to conversion therapy, and the White House issued a statement that conversion therapy is potentially devastating to LGBTQ+ young people.²⁷

Some maintain that all health-related decisions for children or vulnerable adults should be the purview of parents, guardians, or caretakers. In a California ruling, however, the court determined that the California bill (SB 1172) does not infringe on parents' rights to make medical decisions for their children because parents cannot "compel the State to permit licensed mental health [professionals] to engage in unsafe practices and cannot dictate the prevailing standard of care in California based on their own views."²⁸

b. Public health effects of conversion therapy

A coherent argument can be made for the concern and involvement of the state health department. MDH is Minnesota's lead agency to protect, maintain and improve the health of all Minnesotans; it pursues health

¹⁹ Gans LA. *Inverts, Perverts, and Converts: Sexual Orientation Change Therapy and Liability*, 8 B.U. PUB. INT. L.J. 219, 224 & nn.30-32 (1999)

²⁰ Haldeman DC. *Sexual Orientation Conversion Therapy for Gay Men and Lesbians: A Scientific Study*, in HOMOSEXUALITY: RESEARCH IMPLICATIONS FOR PUBLIC POLICY 149 (John C. Gonsorick & James D. Weinrick eds., 1991), available at <https://web.archive.org/web/20180206023332/http://www.drdoughaldeman.com/doc/ScientificExamination.pdf>

²¹ American Academy of Pediatrics. *Homosexuality and Adolescence*, 92 Pediatrics 631 (1993), accessed March 31, 2022.

²² Daniel H, Butkus R. *Lesbian, Gay, Bisexual, and Transgender Health Disparities: Executive Summary of a Policy Position Paper from the American College of Physicians*. Annals of Internal Medicine. Published online 12 May 12, 2015. <https://doi.org/10.7326/M14-2482>

²³ American Psychiatric Association. *Position Statement on Issues Related to Homosexuality*. 2013. Accessed March 31, 2022.

²⁴ American Psychoanalytic Association. [Position Statement on Attempts to Change Sexual Orientation, Gender Identity, or Gender Expression \(https://apsa.org/content/2012-position-statement-attempts-change-sexual-orientation-gender-identity-or-gender\)](https://apsa.org/content/2012-position-statement-attempts-change-sexual-orientation-gender-identity-or-gender). 2012. Accessed March 31, 2022.

²⁵ American School Counselor Association. [The School Counselor and LGBTQ Youth \(www.schoolcounselor.org/getmedia/d597c40b-7684-445f-b5ed-713388478486/Position-Statements.pdf\)](http://www.schoolcounselor.org/getmedia/d597c40b-7684-445f-b5ed-713388478486/Position-Statements.pdf). 2016. Accessed March 31, 2022.

²⁶ Pan American Health Organization. (Regional Office of the World Health Organization). *"CURES" FOR AN ILLNESS THAT DOES NOT EXIST (https://www.paho.org/hq/dmdocuments/2012/Conversion-Therapies-EN.pdf)*. Accessed March 31, 2022.

²⁷ White House. President Barack Obama. *Petition Response: On Conversion Therapy (https://obamawhitehouse.archives.gov/blog/2015/04/08/petition-response-conversion-therapy)*. April 8, 2015.

²⁸ Cella AS, p. 116.

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equity in Minnesota – that condition where all communities thrive and where all people have what they need to be healthy.

Public health addresses the health of the whole population, especially as the subject of government regulation, oversight, and funding support.²⁹ Public health can also be described as the science and art of prevention (injury, illness, disease) and promotion (living life as healthy as possible until one dies).^{30 31} Public health is achieved through the synergy and interaction of individuals, families, communities, organizations, and societal commitments. Public health examines determinants of health – those shared risk and protective factors that either increase a group’s risk of poor health outcomes or that protect a group from poor health outcomes or the corollary – improves the likelihood of good health outcomes.³² In public health, *public* does not have to be a large number – it can be a handful of people, a village, an entire city, a state, a nation, or a group of nations. *Health* includes physical, psychological, and social well-being.³³

Why should Minnesota (or any state) care about how its professionals practice (medicine, nursing, education, social work, or counseling) on or among individuals? As noted in the preceding paragraph, “public” can refer to a group containing a small number. It is within the state’s purview to care for those unable to care for themselves and to support parents and caregivers in providing the best possible health care for children and for adults with disabilities. As such, it is the state’s obligation not only to “do no harm,” but to take action to secure the health and well-being of those within its bounds. When neither parents nor doctors will protect a child from harm, the child may have no other advocate. In such cases, the state may be able to provide the only effective support by codifying a policy against mistreatment.³⁴

While there are many factors that may increase the risk of suicide in younger populations, low self-esteem from conversion attempts may be a contributing factor. Minnesota’s suicide rate among adolescents and young adults (ages 15-24) than the national rate. In Minnesota, suicide is the second leading cause of death for young people ages 10-24, and LGBTQ+ populations are at even higher risk of suicide. The 2019 Minnesota Student Survey (MSS) collected responses from over 170,000 5th, 8th, 9th and 11 graders. 9th and 11th graders responded

²⁹ [Public health - Wikipedia \(https://en.wikipedia.org/wiki/Public_health?msclid=b5645142abf11eca5292f95f9eea6e0\)](https://en.wikipedia.org/wiki/Public_health?msclid=b5645142abf11eca5292f95f9eea6e0). Accessed March 24, 2022.

³⁰ Gatseva, Penka D.; Argirova, Mariana (1 June 2011). "[Public health: the science of promoting health.](https://link.springer.com/article/10.1007/s10389-011-0412-8)" <https://link.springer.com/article/10.1007/s10389-011-0412-8> *Journal of Public Health*. 19 (3): 205–206.

³¹ [Winslow, Charles-Edward Amory \(1920\). "The Untilled Field of Public Health." *Modern Medicine*. 2 \(1306\): 183 -191.](#)

³² "[What is Public Health?](https://www.cdcfoundation.org/what-public-health)" (<https://www.cdcfoundation.org/what-public-health>) *Centers for Disease Control Foundation*. Atlanta, GA: Centers for Disease Control. Accessed March 24, 2022.

³³ [What is the WHO definition of health?](https://web.archive.org/web/20190307113324/https://www.who.int/about/who-we-are/frequently-asked-questions) (<https://web.archive.org/web/20190307113324/https://www.who.int/about/who-we-are/frequently-asked-questions>) from the Preamble to the Constitution of WHO as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of WHO, no. 2, p. 100) and entered into force on 7 April 1948. The definition has not been amended since 1948.

³⁴ Cella AS, pp. 119, 123, 126.

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to questions about sexual orientation. Compared to students who identified as heterosexual, students who identified as gay or lesbian were more likely to have seriously considered attempting suicide during the past year (33.4% vs. 10.3%), more likely to have attempted suicide during the past year (11.7% vs. 2.6%), and more likely to have attempted suicide more than a year ago (16.7% v. 4.0%). For all these questions, rates among students who identified as bisexual were even higher.³⁵

Data on the adverse impacts of SOGICE are limited, and additional research is needed to identify breadth and scope of its effects on LGBTQ+ populations. In a recent study, researchers conducted a systematic literature review to compile a broad evidence base regarding SOGICE and its effects, used this to perform economic modeling to quantify the consequences and costs of SOGICE.³⁶ Economic modeling estimated that, in addition to the costs of SOGICE, downstream consequences were associated with additional lifetime costs of \$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 \$9.23 billion.

3. What other jurisdictions have done regarding conversion therapy

The Movement Advancement Project³⁷ summarizes the status of conversion therapy laws in the United States. Conversion therapy laws prohibit licensed mental health practitioners from engaging in practices that attempt to change the sexual orientation or gender identity of minors. These laws do not restrict the practice among religious providers. In the United States today, 20 states and the District of Columbia have state laws that ban conversion therapy for minors. Five states and one territory have partial conversion therapy bans (North Dakota, Wisconsin, Michigan, North Carolina and Puerto Rico). In Minnesota, eight cities have an ordinance prohibiting conversion therapy for minors (Bloomington, Duluth, Minneapolis, Red Wing, Robbinsdale, Saint Paul, West Saint Paul, and Winona). Three states (Alabama, Georgia, Florida) are under a federal preliminary injunction preventing enforcement of conversion therapy bans. And 22 states and four territories have no law or policy banning conversion therapy amongst minors.

Most of the states with bans or policies have modeled their language after the bills in CA (2012) and NJ (2013). As noted in the preceding section, the bills regulate professional conduct, but they do not abridge or limit free

³⁵ [Minnesota Student Survey \(https://www.health.state.mn.us/data/mchs/surveys/mss/statewidetables.html\)](https://www.health.state.mn.us/data/mchs/surveys/mss/statewidetables.html), 2019.

³⁶ Forsythe A, et al.

³⁷ [Movement Advancement Project \(http://www.lgbtmap.org/equality-maps/conversion_therapy\)](http://www.lgbtmap.org/equality-maps/conversion_therapy). Accessed March 24, 2022. *Conversion therapy laws*.

speech. Therapists may discuss the pros and cons of conversion therapy, but they cannot practice conversion therapy.³⁸

4. Conclusion

This report summarizes the scientific literature relevant to the safety and effectiveness of conversion therapy, its public health effects, and approaches that other jurisdictions have taken relative to conversion therapy. Available scientific literature suggest there are strong associations between adverse health effects, such as anxiety, depression, and suicide, and a previous experience of conversion therapy. In addition, helping professions most likely to work with LGBTQ+ individuals, and thus in the best position to observe individuals who have experienced conversion therapy, overwhelmingly reject the practice of conversion therapy as being neither effective nor harmless. Data establish that LGBTQ+ youth are a vulnerable population. Thus, public health should be even more vigilant in protecting this vulnerable population from harmful or even potentially harmful practices.

While there are limited studies available on this topic, at least two cross-sectional studies confirmed an association between children and youth who had experienced conversion therapy and subsequently had increased suicidal ideation and suicide attempts.^{39 40} And a recent meta-analysis documented increased adverse effects for LGBTQ+ individuals who had experienced SOGICE than those who had not. It may be noted that regardless of whether scientific causality has been established, mainstream mental health, medical, and educational organizations do not support use of conversion therapy.

Limitations of these studies include study design, which may not have achieved true representation of the population of interest, and potential confounding due to different modalities used for conversion therapy, especially some modalities in use prior to the mid-1990s. Another important limitation is the extent of the literature review and the search terms and databases used for this analysis.

Since 2012, states have increasingly taken action to protect vulnerable youth from conversion therapy. At latest count, 20 states and the District of Columbia ban the practice of conversion therapy for minors; five other states have partial bans. Administrative rules and executive orders support these bans in some jurisdictions.⁴¹

³⁸ Calvert C, et al.

³⁹ [SAGE Encyclopedia of Communication Research Methods \(https://methods.sagepub.com/Reference/the-sage-encyclopedia-of-communication-research-methods\)](https://methods.sagepub.com/Reference/the-sage-encyclopedia-of-communication-research-methods). *Causality*. 2017. Accessed March 31, 2022.

⁴⁰ The standard for causation in science is rigorous. Three widely accepted preconditions to establish causality include first, that the variables are associated; second, that the independent variable precedes the dependent variable in temporal order; and third, that all possible alternative explanations for the relationship have been accounted for and dismissed.

⁴¹ Movement Advancement Project. [Conversion Therapy Laws \(https://www.lgbtmap.org/img/maps/citations-conversion-therapy.pdf\)](https://www.lgbtmap.org/img/maps/citations-conversion-therapy.pdf). Last updated 7/16/2021.