

Cass Review does not guide care for trans young people

Julia K Moore^{1,2} 

Cate Rayner^{3,4}

S Rachel Skinner^{5,6}

Katie Wynne^{7,8} 

Blake S Cavve^{1,9} 

Brodie Fraser¹⁰

Uma Ganti^{1,2}

Claire McAllister¹¹

Gideon Meyerowitz-Katz¹²

Tram Nguyen³

Anja Ravine¹³ 

Brian Ross¹¹

Darren B Russell^{14,15}

Liz A Saunders^{1,2}

Aris Siafarikas^{1,2}

Ken C Pang^{3,13} 

¹ Government of Western Australia Child and Adolescent Health Service, Perth, WA.

² University of Western Australia, Perth, WA.

³ Royal Children's Hospital Melbourne, Melbourne, VIC.

⁴ University of Melbourne, Melbourne, VIC.

⁵ University of Sydney, Sydney, NSW.

⁶ Children's Hospital at Westmead, Sydney Children's Hospital Network, Sydney, NSW.

⁷ Maple Leaf House, Hunter New England Local Health District, Newcastle, NSW.

⁸ University of Newcastle Australia, Newcastle, NSW.

⁹ The Kids Research Institute Australia, Perth, WA.

¹⁰ University of Otago Wellington, Wellington, New Zealand.

¹¹ Children's Health Queensland, Brisbane, QLD.

¹² University of Wollongong, Wollongong, NSW.

¹³ Murdoch Children's Research Institute, Melbourne, VIC.

¹⁴ James Cook University, Cairns, QLD.

¹⁵ Prism Health, Drysdale, VIC.

ken.pang@mcri.edu.au

doi: 10.5694/mja2.70035

The *Independent review of gender identity services for children and young people*, or Cass Review¹ (the Review), was commissioned by England's National Health Service (NHS) following increased referrals to the NHS Gender Identity Development Service (GIDS), criticisms of GIDS, and the *Bell v Tavistock* case involving one young person who regretted gender-affirming medical treatment (GAMT).² The Review's April 2024 final report recommended that puberty suppression with gonadotrophin-releasing hormone analogues (GnRHa) should only be available to transgender (trans) adolescents in a clinical trial, which has not commenced. The United Kingdom Government subsequently prohibited the supply of GnRHa as GAMT for minors,³ making it unlawful for trans adolescents to commence GnRHa treatment. Other Review recommendations restrict the provision of oestrogen and testosterone for individuals over the age of 16 years, and conceptualise social affirmation of trans children as a potentially harmful intervention.¹

Worldwide, the Review has received criticism from expert professional organisations⁴⁻⁷ and in the peer-reviewed literature⁸⁻¹² for its disregard of international expert consensus,¹³ methodological problems, and conceptual errors. UK trans community advocates have raised issues of justice and human rights.¹⁴ The UK Government cited the Review in guidance empowering schools to misgender trans students and breach their confidentiality.¹⁵ In response, the Royal College of Paediatrics and Child Health stated that this disregarded *Gilllick* competence, contradicted guidance from the National Institute for Health and Care Excellence (NICE) to use chosen name and pronouns,¹⁶ and placed young people at risk of abuse.¹⁵

The Cass Review's internal contradictions are striking. It acknowledged that some trans young people benefit from puberty suppression, but its recommendations have made this currently inaccessible to all. It found no evidence that psychological treatments improve gender dysphoria, yet recommended expanding their provision. It found that NHS provision of GAMT (GnRHa, oestrogen or testosterone) was already very restricted, and that young people were distressed by lack of access to treatment,¹ yet it recommended increased barriers to oestrogen and testosterone for any trans adolescents aged under 18 years. It dismissed the evidence of benefit from GAMT as "weak", but emphasised speculative harms based on weaker evidence. The harms of withholding GAMT were not evaluated. The Review disregarded studies observing that adolescents who requested but were unable to access GAMT had poorer mental health compared with those who could access GAMT.¹⁷⁻²¹ Despite finding that detransition and regret appear uncommon,¹ the Review's recommendations appear to have the goal of preventing regret at any cost.

The Review, and the UK Government, have taken the position that GAMT, an established treatment with

observational evidence of early and medium term benefits and acceptable safety,²² should be actively withheld from trans adolescents due to lack of high certainty evidence of very long term efficacy and safety. Few treatments for any condition meet this criterion, and it is difficult to name another field in which regulators impose such a benchmark.²³ Much health care in other areas of medicine is guided by evidence of similar or lesser strength.²³

In Australia, gender-affirming care for trans young people is recognised as best practice,²⁴ despite some vocal opposition. The National Health and Medical Research Council is currently reviewing the *Australian standards of care and treatment guidelines for transgender and gender diverse children and adolescents*²⁵ and developing updated guidelines. The conceptualisation of gender diversity which informs gender-affirming care is summarised in [the Box](#).

Paediatric gender-affirming care in Australia

The gender-affirming model of care⁵⁸ is highly acceptable to young people and families,³⁸ and quickly superseded previous unsuccessful efforts to repress gender-diverse identity.^{22,59} Gender-affirming care recognises that each person should be supported to live in the gender that is most authentic to them; trans, gender-diverse and non-binary individuals are accepted as they are.²² This involves listening to the young person. Gender-affirming care includes support for the young person's requests for social affirmation (eg, chosen name, pronouns, school accommodations, documents).¹³ Gender-affirming care can also include the option of GAMT (puberty suppression, oestrogen, testosterone) for the minority who need and request it.¹³ Gender-affirming care, as described in authoritative guidelines,^{13,25,60} is person- and family-centred, holistic, multidisciplinary, and ethically sound.⁶¹

Responding to patient need, public paediatric gender-affirming services have developed in all Australian states. Gender-affirming care providers include general practitioners, private specialists and community allied health providers, particularly in regional and remote settings.¹³

Best practice gender-affirming care involves comprehensive multidisciplinary biopsychosocial assessment before any GAMT.^{13,25} Coexisting conditions such as depression, anxiety, eating disorders, autism and attention deficit hyperactivity disorder (ADHD) can be addressed as needed alongside gender-affirming care.¹³ Family, school and community acceptance are supported.²⁵ Social affirmation steps are personal and family decisions, not clinical interventions.¹³

GAMT is not used before the start of puberty.¹³ Although only a minority of trans adolescents commence any GAMT,⁶² some experience it as

Gender diversity: an introduction

- Some people — adults, adolescents and children — are transgender (trans); that is, their gender identity does not align with their sex registered at birth.²⁶ For many, gender identity is stable over time; for some, gender identity evolves.²⁷
- Trans and gender-diverse people have been documented in many cultures throughout history.²⁸
- A person who is trans can be of any sexuality. Gender and sexual orientation are distinct. More trans young people identify as gay, lesbian, bisexual or another non-heterosexual orientation than their cisgender peers.^{29,30} Like diverse sexuality, trans and gender-diverse identities represent another dimension of human variation, not disorder,^{31,32} and should be accepted.¹³
- Many trans adults report that they had self-awareness of their gender from adolescence or childhood, often years before telling others. First self-recognition of one's trans identity in adolescence is not a new phenomenon.^{33,34}
- In decades past, many trans young people felt isolated, with no words to articulate their experience.³⁵ The information revolution has increased health literacy and access to health care.³⁶
- More trans young people are requesting referral to specialist gender-affirming care, as they become aware that support is available, including gender-affirming medical treatment (GAMT).³⁷
- Many trans young people do not want medical or surgical treatment. Some need and request GAMT, for relief from the intolerable distress of incongruent puberty, to be recognised as their felt gender, and to live more comfortably and safely.²² Services to meet these valid health care needs are essential. There are reported benefits from GAMT for trans young people and their families.^{20,21,38–40}
- Re-identification with the birth-registered sex following GAMT, and treatment-related regret, appear to be uncommon.^{41–45} Discontinuation of GAMT^{43,46,47} may occur for many valid personal reasons.⁴⁸
- Sexuality and gender identity change efforts or conversion practices, which aim to repress or change sexuality or gender identity, are harmful⁴⁹ and are illegal in many jurisdictions.
- Trans young people and adults, particularly those who are exposed to discrimination and abuse, are at greatly increased risk of mental health problems,⁵⁰ deliberate self-harm, suicide attempt,^{51,52} and suicide.⁵³
- Better mental health in trans young people is associated with loving acceptance by family, school and community,^{29,54} freedom from bullying and discrimination,²⁹ being called by their chosen name,⁵⁵ peer support,⁵⁴ and timely access to GAMT where needed.^{17,18,20,21,40,56,57}
- Health care for trans young people must respect their voices, emerging autonomy, and dignity.¹³

essential, even life-saving.⁵⁷ The risks and benefits of a treatment are weighed up against the risks and benefits of not having, or delaying, the treatment; and alternatives are discussed.¹³ Frank discussion of treatment effects (irreversible and reversible), risks, fertility implications, unknowns, and the possibility of regret⁴¹ are essential for informed consent. Treatment decisions are collaborative, between the young person, their parents or caregivers and clinicians.¹³

If eligible according to guidelines,^{13,25,60} largely reversible puberty suppression with GnRHa may be provided from Tanner stage 2–3. For adolescents who request GnRHa but are not yet *Gillick*-competent, parents can provide informed consent.⁶³ Partially irreversible sex hormone treatment (oestrogen, testosterone) may be provided to *Gillick*-competent older adolescents and young adults, whose identity and treatment wishes have been consistent for a long time.¹³ Legal requirements for consent differ between

states. Gender-affirming genital surgery is not provided for minors in Australia.²⁵

Cass Review recommendations and their consequences

Many of the Review's 32 recommendations align with current Australian best practice. For example, there is consensus that care should be individualised, family-centred, medical-led and multidisciplinary, and it should ensure treatment of coexisting conditions; that GAMT should be provided with a clear rationale and informed consent; and that fertility impacts should be addressed.^{1,13,25} However, other Review recommendations are incompatible with person-centred care and unsubstantiated by evidence.

The Review described social transition (social affirmation) as an "active intervention" which is "a cause of concern for many people", despite acknowledging the observational longitudinal and cross-sectional evidence of good mental health outcomes in children and adolescents supported to socially affirm their gender.^{55,58,64,65} The child's wish to express their gender identity is incorrectly framed as a clinical problem.⁶⁶ Disturbingly, the Review speculatively conceptualised the continuation of trans identity into adulthood as a potential harm of social transition.^{1,67} It ignored the profound distress, family conflict and school refusal that often occur when a trans child's insistently expressed identity is not respected.⁶⁷ The Review recommended that families considering social transition for prepubertal children should be "seen as early as possible by a clinical professional with relevant experience", raising concerns that families could be exposed to repressive or conversion practices.

The Review recommended that puberty suppression for trans young people should only occur in a research trial of unspecified methodology, without discussing the questionable ethics of compulsory research,⁶⁸ the impossibility of blinding due to obvious GAMT effects, or the harms of allocation to a non-treatment group.⁶⁹ Although research-only provision of GnRHa was signalled in the Review's Interim Report in 2022,⁷⁰ no such trial has commenced to date.

The Review recommended that oestrogen and testosterone for trans 16- and 17-year-olds should be prescribed only with "extreme caution", after approval by a "national multidisciplinary team". The Review's audit of the NHS paediatric gender service found that of 3306 patients, after long waiting times, only 22% were prescribed any GAMT following assessment,¹ indicating that hormonal treatments were already restricted to a minority of patients. The rationale for increasing restrictions is unclear.

A Cass Review-commissioned systematic review⁷¹ identified only ten studies analysing psychosocial interventions for young people "experiencing gender dysphoria or incongruence", none of which reported on relief of gender dysphoria. Nine were rated low quality. One small study with only eight trans participants, was rated moderate quality. The Review concluded that there was a "lack of evidence" for psychosocial

treatments in this patient population. Despite this finding, the Review recommended the expansion of “psychological and psychosocial interventions” for young people referred to gender services, while withholding GAMT.¹

Paradoxically, although the Review advocated for individualised care, its blanket recommendations, and their consequences in UK trans health care provision to date, prevent the exercise of patient choice, parental responsibility, and clinical judgement.

How did the Review come to make these harmful recommendations?

The sociopolitical context

It has been reported that the UK sociopolitical climate is increasingly unsafe for trans people of all ages, with escalating anti-trans hate crimes,⁷² prejudice,⁷³ and dehumanising media commentary.⁷⁴ Factions of feminist thought in which trans women are framed as a threat are prominent.⁷⁵ Traditionalist psychoanalytic theories that pathologise gender diversity remain influential.⁷⁶ Of the health professionals in the Review’s clinical engagement process, one-third agreed with the statement “there is no such thing as a trans child”.⁷⁷

However, trans people are not a moral, philosophical or social issue. They are people. The statement “some people are transgender” is a demographic fact,²⁶ not an ideological position.

Lack of both clinical expertise and trans authorship led to errors

The Review team were explicitly selected for their absence of experience in trans health care, supposedly to avoid bias.⁹ Remarkably, in the era of *nothing about us without us*,⁷⁸ no Review authors were trans people. This enacted stigma presumably resulted in a lack of both clinical and lived expertise, increasing vulnerability to misinformation. Indeed, the Review report echoes fallacies promoted by anti-trans disinformation.⁷⁹

Pathologisation of gender diversity

The Review report did not include consideration of evidence of gender diversity across cultures.²⁸ It did not acknowledge the existence of healthy trans children, or trans adults who were once trans children and/or adolescents.³⁴ It speculated baselessly about causes of gender diversity, from pornography to trauma. The literature on sex-hormone receptor polymorphisms and trans identity was not discussed at all,⁸⁰ which we find to be a surprising omission.

Conceptualisation of increased gender clinic referrals and changed sex ratio as a problem

The Review cites the increased number of paediatric gender clinic referrals, and the increased proportion of trans masculine (birth-registered female) adolescents referred since around 2014, as reasons to question the validity of present-day patients. This lacks historical perspective.

First, the most likely explanation for increased referrals was not entertained: when young people become aware that trans people exist, and that gender-affirming care is available, they will seek this help if they need it.³⁷ Historically, the uptake of effective treatments has been similarly swift; for example, the huge increase in women using the oral contraceptive pill between 1960 and 1975.⁸¹

Second, regarding the sex ratio, gender-non-conforming prepubertal boys (many of whom would not have met diagnostic criteria for gender incongruence) from the 1960s onward were referred to non-affirming clinics by parents who feared that they would grow up gay or trans.⁶⁷ Gender-non-conforming girls were less often referred, reflecting societal tolerance of broader gender expression in females. Studies of these historical cohorts, including desistence statistics, cannot be extrapolated to present-day, adolescent-led referrals of peripubertal and postpubertal trans youth to affirming clinics.⁶⁷

Trans males have sometimes been less visible in society than trans females,⁸² but the first adolescent who commenced gender-affirming GnRHa, in 1987, was a trans male.⁸³ In publications from 1980 to 2014 reporting on adolescents who received GAMT, more than half were trans males (birth-registered female).⁸⁴⁻⁸⁸ The sex ratio of individuals receiving treatment has changed little despite the shift in referrals; Cass fails to appreciate this fact.

Poor understanding of the therapeutic role of puberty suppression

The Review appeared to misunderstand the young person’s primary goal of puberty blocker treatment, which is to prevent progressive irreversible incongruent pubertal changes. It did not acknowledge the benefits of prevention of breast development for trans males, and prevention of facial masculinisation for trans females. Instead, the Review focused on secondary mental health outcomes. GnRHa pauses puberty but does not reverse most changes of puberty that have already occurred, and does not induce the desired congruent puberty. Its anatomical benefits decrease if commenced in more advanced puberty. Hence, some studies observe unchanged gender dysphoria and stable mental health while receiving GnRHa.⁸⁹ The Review erroneously interpreted this lack of change as if it were evidence of no benefit. Higher quality studies suggesting benefit from puberty suppression^{21,40} were mentioned in the Review, but their size and significance appeared to be disregarded. Reassuring longer term safety data regarding bone health⁹⁰ and cognitive development⁹¹ were dismissed. The decision to restrict GnRHa access appears at least partly based on the Review’s underestimation of its benefits and exaggeration of potential harms.

They talked with trans young people, but did not listen to them

The Reviewers met with some trans adolescents. The consultation documents record their distress about difficulty in accessing GAMT,⁹² but little of this is represented in the Review’s report.¹ Young people

were not asked whether they experienced GAMT as beneficial.⁹² In contrast, voices of doubt and speculative concern from non-trans adults are extensively quoted.

Fear of regret

The Review's recommendations appear to prioritise the goal of preventing treatment-related regret. It is essential to appreciate that some people regret GAMT.¹³ Young people and families must consider this thoroughly when weighing short and long term risks, benefits, and unknowns.¹³ This issue is not specific to trans health; regret is a potential consequence of many treatments. International data suggest a low rate of regret; even in persons who decide to cease GAMT, regret appears uncommon.^{42-45,47} There is no evidence that restrictions on GAMT reduce regret.⁹³ Instead, the predictable consequence of restricting GAMT is to increase self-treatment without medical supervision.⁹⁴

Limitations of the Cass Review's seven commissioned systematic reviews

Scientific criticisms of the Review-associated systematic reviews are presented elsewhere.⁸ Their flaws, including their subjective rating of international guideline quality,⁹⁵ undermine confidence in the Review. They are out of date, as their literature search was conducted only up to April 2022. Newer observational studies have reported high treatment satisfaction, and associations of GAMT with better mental health and wellbeing.^{20,39,44,45,56}

Notwithstanding their limitations, the Cass-commissioned systematic reviews found moderate quality evidence of mental health benefits from masculinising and feminising GAMT.⁹⁶ They found that GnRHa is effective in suppressing puberty,⁹⁷ and oestrogen and testosterone are effective in producing feminisation and masculinisation⁹⁶ — the patient's primary goals. These systematic reviews found no evidence of serious harm from GAMT or social transition sufficient to justify withholding either,⁹⁶⁻⁹⁸ and they did not evaluate the harms of withholding GAMT. The Cass Review's restrictive recommendations are not supported by its own systematic reviews.

Failure of evidence-based medicine

Evidence-based medicine has three pillars: (i) appraisal of research evidence, (ii) real-world clinical expertise, and (iii) individual patient values and preferences.⁹⁹ The Review's failures across all three are evident.

Clinician and researcher self-awareness of personal values is essential for evidence-based medicine practice. Non-financial conflicts of interest should be disclosed; for example, religious, cultural, and so-called "gender-critical" beliefs.¹⁰⁰ The Review acknowledges no such considerations, and does not disclose the positionality of authors.

Conclusions

Good medicine is guided by the values of the patient, not those of a clinician, politician or commentator.⁹⁹

A patient's goal of achieving optimal quality of life as a trans person requires respect.³⁸

A body of short and medium term observational quantitative and qualitative evidence informs paediatric gender-affirming care and GAMT.²² Further research in paediatric trans populations must be co-designed and ethically conducted.^{68,78}

The Cass Review, lacking expertise and compromised by implicit stigma and misinformation, does not give credible evidence-based guidance. We are gravely concerned about its impact on the wellbeing of trans and gender-diverse people.

Acknowledgements: No funding was received for the planning, writing or publication of this article. We acknowledge the contributions of Stuart Aitken, Jemma Anderson, Anna Bamford, Georgia Chaplyn, Michelle Dutton, Lynn Gillam, Stephanie Johnson, Ashleigh Lin, Sally Murray, Campbell Paul, Alyssa Rose, Stephen Stathis, Penelope Strauss, Georgie Swift, Niall Taylor, and Jason Westwater, all of whom reviewed the manuscript and provided helpful commentary. This publication is the work of the authors, and does not necessarily reflect the official positions of their employers or affiliated institutions.

Open access: Open access publishing facilitated by The University of Melbourne, as part of the Wiley – The University of Melbourne agreement via the Council of Australian University Librarians.

Positionality statement: We acknowledge the positionality of the authors and the other acknowledged contributors as an important consideration in shaping our approach to this topic. Some authors and acknowledged contributors are health professionals working in gender-affirming health care for transgender (trans) young people, and in other fields. Some authors and acknowledged contributors are research professionals in the area of trans health, and in other fields. Their professional backgrounds include adolescent medicine, clinical ethics, endocrinology, epidemiology, general practice, infant mental health, medical genetics, paediatrics, population health, psychiatry, psychology, sexual health, and speech pathology. Many of the authors and other acknowledged contributors are investigators of the Australian Research Consortium for Trans Youth and Children. In relation to identities and experiences, some are trans, gender-diverse and non-binary, and some are cisgender (not trans); some are queer and some are straight. The authors and acknowledged contributors are from a range of cultural and language backgrounds; some are early career and some are senior. This project is motivated by the research team's commitment to promoting respectful, person-centred and evidence-informed health care for trans and gender-diverse people of all ages.

Competing interests: Julia Moore is on the Policy Committee of the Australian Professional Association for Trans Health (AusPATH), is a member of the World Professional Association for Transgender Health (WPATH) and the International Society for Sexual Medicine, is an investigator of the Australian Research Consortium for Trans Youth and Children (ARCTYC), and is a Fellow of the Royal Australian and New Zealand College of Psychiatrists (RANZCP). Cate Rayner is a member of AusPATH, WPATH and the Australian Association of Adolescent Health (AAAH), is an investigator of ARCTYC, and is a Fellow of the Royal Australasian College of Physicians (RACP). S Rachel Skinner is a member of WPATH, AusPATH and AAAH, is an investigator of ARCTYC, and is a RACP Fellow. Katie Wynne is an Executive Board Member of AusPATH, a member of WPATH, is an investigator of ARCTYC, and is a Fellow of the RACP and of the Royal College of Physicians (London). Blake Cavve is a member of AusPATH and WPATH, and is an investigator of ARCTYC. Brodie Fraser is a member of the Aotearoa Trans Health Research Network, and is on the editorial review board of the *International Journal of Qualitative Methods*. Uma Ganti is a RACP Fellow. Claire McAllister is a member of AusPATH and a RANZCP Fellow. Gideon Meyerowitz-Katz is a volunteer on the committee of Australian Skeptics. Tram Nguyen is a Member of AusPATH, is an investigator of ARCTYC, and is a RANZCP Fellow. Anja Ravine is a member of AusPATH and WPATH, is an investigator of ARCTYC, and is a RACP Fellow. Brian Ross is a RANZCP Fellow. Darren Russell is a Board Member of AusPATH, a member of WPATH, is an investigator of ARCTYC, a Fellow of the Australasian Chapter of Sexual Health Medicine of the RACP, and a Fellow of the Royal Australian College of General Practitioners. Liz Saunders is a member of AusPATH and a member of the Australian Psychological Society. Aris Sifarikas is a RACP Fellow, is an investigator of ARCTYC, and is on the editorial board of the journal *Nutrients*. Ken Pang is a member of AusPATH and WPATH, is a Primary Chief Investigator of ARCTYC, a RACP Fellow, and is an associate editor of the journal *Transgender Health*.

Provenance: Not commissioned; externally peer reviewed.

Author contributions: Moore JK: Conceptualization, investigation, writing – original draft, writing – review and editing. Rayner C:

Conceptualization, investigation, writing – original draft, writing – review and editing. Skinner SR: Conceptualization, investigation, writing – original draft, writing – review and editing. Wynne K: Investigation, writing – original draft, writing – review and editing. Cavve BS: Investigation, writing – original draft, writing – review and editing. Fraser B: Investigation, writing – original draft, writing – review and editing. Ganti U: Conceptualization, writing – review and editing. McAllister C: Writing – review and editing. Meyerowitz-Katz G: Conceptualization, investigation, writing – review and editing. Nguyen T: Writing – review and editing. Ravine A: Conceptualization, investigation, writing – review and editing. Ross B: Conceptualization, writing – review and editing. Russell DB: Writing – original draft, writing – review and editing. Saunders LA: Conceptualization, writing – review and editing. Siafarikas A: Conceptualization, writing – review and editing. Pang KC: Conceptualization, investigation, writing – original draft, writing – review and editing. ■

© 2025 The Author(s). *Medical Journal of Australia* published by John Wiley & Sons Australia, Ltd on behalf of AMPCo Pty Ltd.

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial](#) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

- 1 Cass H. Independent review of gender identity services for children and young people: final report. April 2024. <https://cass.independent-review.uk/home/publications/final-report/> (viewed Apr 2024).
- 2 Courts and Tribunals Judiciary. R (on the application of) Quincy Bell and A v Tavistock and Portman NHS Trust and others. Neutral Citation Number: [2020] EWHC 3274 (Admin); Case No: CO/60/2020 [website]. 1 December 2020. <https://www.judiciary.uk/judgments/r-on-the-application-of-quincy-bell-and-a-v-tavistock-and-portman-nhs-trust-and-others/> (viewed June 2024).
- 3 2024 No. 727 Medicines. The Medicines (Gonadotrophin-Releasing Hormone Analogues) (Emergency Prohibition) (England, Wales and Scotland) Order 2024 (revoked). <https://www.legislation.gov.uk/uksi/2024/727/contents> (viewed Aug 2025).
- 4 Australian Professional Association for Trans Health. AusPATH statement about the Independent Review of gender identity services for children and young people: interim report February 2022 in the UK (Cass Review). 11 August 2022. <https://auspath.org.au/2022/08/11/auspath-statement-about-the-independent-review-of-gender-identity-services-for-children-and-young-people-interim-report-february-2022-in-the-uk-cass-review/> (viewed June 2024).
- 5 Professional Association for Trans Health Aotearoa. Cass Review out of step with high-quality care provided in Aotearoa. 11 April 2024. <https://patha.nz/News/13341582> (viewed June 2024).
- 6 Endocrine Society. Endocrine Society statement in support of gender-affirming care. 8 May 2024. <https://www.endocrine.org/news-and-advocacy/news-room/2024/statement-in-support-of-gender-affirming-care> (viewed June 2024).
- 7 World Professional Association for Transgender Health and United States Professional Association for Transgender Health. WPATH and USPATH Comment on the Cass Review. 17 May 2024. <https://www.wpath.org/wp-content/uploads/2024/11/17.05.24-Response-Cass-Review-FINAL-with-ed-note.pdf> (viewed June 2024).
- 8 Grijsels DM. Biological and psychosocial evidence in the Cass Review: a critical commentary. *Int J Transgender Health* 2024; 1–11.
- 9 Horton C. The Cass Review: cis-supremacy in the UK's approach to healthcare for trans children. *Int J Transgender Health* 2024; 1–25.
- 10 Noone C, Southgate A, Ashman A, et al. Critically appraising the Cass report: methodological flaws and unsupported claims. *BMC Med Res Methodol* 2025; 25: 128.
- 11 Aaron DG, Konnoth C. The future of gender-affirming care — a law and policy perspective on the Cass Review. *N Engl J Med* 2025; 392: 526–528.
- 12 Kennedy N. Harming children: the effects of the UK puberty blocker ban. *J Gen Stud* 2025; 1–17.
- 13 Coleman E, Radix AE, Bouman WP, et al. Standards of care for the health of transgender and gender diverse people, version 8. *Int J Transgend Health* 2022; 23 (Suppl 1): S1–S259.
- 14 TransActual. Letter to Wes Streeting from TransActual and others re the Cass Review. 15 October 2024. <https://transactual.org.uk/wp-content/uploads/Letter-to-Wes-Streeting-from-TransActual-and-others-re-the-Cass-Review-Oct-2024.pdf> (viewed Oct 2024).
- 15 Royal College of Paediatrics and Child Health. Response from: Royal College of Paediatrics and Child Health. To: Department for Education Consultation “Guidance for schools and colleges: gender questioning children”. Due: 12 March 2024. <https://www.rcpch.ac.uk/sites/default/files/2024-03/consultation-response-dfe-guidance-schools-colleges-gender-questioning-children.pdf> (viewed June 2024).
- 16 NICE. Babies, children and young people's experience of healthcare [NG204]. London: NICE; 2021. <https://www.nice.org.uk/guidance/ng204> (viewed July 2025).
- 17 Tordoff DM, Wanta JW, Collin A, et al. Mental health outcomes in transgender and nonbinary youths receiving gender-affirming care. *JAMA Netw Open* 2022; 5: e220978.
- 18 Green AE, DeChants JP, Price MN, Davis CK. Association of gender-affirming hormone therapy with depression, thoughts of suicide, and attempted suicide among transgender and nonbinary youth. *J Adolesc Health* 2022; 70: 643–649.
- 19 Turban JL, King D, Carswell JM, Keuroghlian AS. Pubertal suppression for transgender youth and risk of suicidal ideation. *Pediatrics* 2020; 145: e20191725.
- 20 McGregor K, McKenna JL, Williams CR, et al. Association of pubertal blockade at Tanner 2/3 with psychosocial benefits in transgender and gender diverse youth at hormone readiness assessment. *J Adolesc Health* 2024; 74: 801–807.
- 21 Chen D, Berona J, Chan YM, et al. Psychosocial functioning in transgender youth after 2 years of hormones. *N Engl J Med* 2023; 388: 240–250.
- 22 Lee JY, Rosenthal SM. Gender-affirming care of transgender and gender-diverse youth: current concepts. *Annu Rev Med* 2023; 74: 107–116.
- 23 Howick J, Koletsi D, Pandis N, et al. The quality of evidence for medical interventions does not improve or worsen: a metaepidemiological study of Cochrane reviews. *J Clin Epidemiol* 2020; 126: 154–159.
- 24 Australian Medical Association. LGBTQIASB+ health position statement. 8 February 2024. <https://www.ama.com.au/ama-rounds/9-february-2024/articles/lgbtqiasb-health-position-statement> (viewed June 2024).
- 25 Telfer MM, Tollit MA, Pace CC, Pang KC. Australian standards of care and treatment guidelines for transgender and gender diverse children and adolescents. *Med J Aust* 2018; 209: 132–136. <https://www.mja.com.au/journal/2018/209/3/australian-standards-care-and-treatment-guidelines-transgender-and-gender>
- 26 Zhang Q, Goodman M, Adams N, et al. Epidemiological considerations in transgender health: a systematic review with focus on higher quality data. *Int J Transgend Health* 2020; 21: 125–137.
- 27 Olson KR, Durwood L, Horton R, et al. Gender identity 5 years after social transition. *Pediatrics* 2022; 150: e2021056082.
- 28 Fontenele R, Abi Zeid Daou M. Transgender history, part I: an anthropology of gender-nonconformity across ages and cultures. *Behav Sci Law* 2025; 43: 323–328.
- 29 Strauss P, Cook A, Winter S, et al. Trans Pathways: the mental health experiences and care pathways of trans young people. Summary of results. Perth: Telethon Kids Institute, 2017. <https://www.thekids.org.au/globalassets/media/documents/brain-behaviour/trans-pathwayreport-web.pdf> (viewed July 2025).
- 30 Marino JL, Werner-Seidler A, Maston K, et al. Sexuality and gender diversity among adolescents in Australia, 2019–2021. *JAMA Netw Open* 2024; 7: e2444187.
- 31 Askevis-Leherpeux F, de la Chenelière M, Baleige A, et al. Why and how to support depsychiatrisation of adult transidentity in ICD-11: a French study. *Eur Psychiatry* 2019; 59: 8–14.
- 32 Royal Australian and New Zealand College of Psychiatrists. Position Statement 103. The role of psychiatrists in working

- with Trans and Gender Diverse people. Melbourne: RANZCP, 2023. <https://www.ranzcp.org/clinical-guidelines-publications/clinical-guidelines-publications-library/role-of-psychiatrists-working-with-trans-gender-diverse-people> (viewed June 2024).
- 33 Testa RJ, Jimenez CL, Rankin S. Risk and resilience during transgender identity development: the effects of awareness and engagement with other transgender people on affect. *J Gay Lesbian Ment Health* 2014; 18: 31–46.
- 34 Factor R, Rothblum E. Exploring gender identity and community among three groups of transgender individuals in the United States: MTFs, FTM, and genderqueers. *Health Sociology Review* 2008; 17: 235–253.
- 35 Hamburger C. The desire for change of sex as shown by personal letters from 465 men and women. *Acta Endocrinol (Copenh)* 1953; 14: 361–375.
- 36 Berger MN, Taba M, Marino JL, et al. Social media's role in support networks among LGBTQ adolescents: a qualitative study. *Sex Health* 2021; 18: 421–431.
- 37 Pang KC, de Graaf NM, Chew D, et al. Association of media coverage of transgender and gender diverse issues with rates of referral of transgender children and adolescents to specialist gender clinics in the UK and Australia. *JAMA Netw Open* 2020; 3: e2011161.
- 38 Goulding R, Goodwin J, O'Donovan A, Saab MM. Transgender and gender diverse youths' experiences of healthcare: a systematic review of qualitative studies. *J Child Health Care* 2025; 29: 523–545.
- 39 Crabtree L, Connelly KJ, Guerriero JT, et al. A more nuanced story: pediatric gender-affirming healthcare is associated with satisfaction and confidence. *J Adolesc Health* 2024; 75: 772–779.
- 40 van der Miesen AIR, Steensma TD, de Vries ALC, et al. Psychological functioning in transgender adolescents before and after gender-affirmative care compared with cisgender general population peers. *J Adolesc Health* 2020; 66: 699–704.
- 41 Cavve BS, Bickendorf X, Ball J, et al. Reidentification with birth-registered sex in a Western Australian pediatric gender clinic cohort. *JAMA Pediatr* 2024; 178: 446–453.
- 42 Wiepjes CM, Nota NM, de Blok CJM, et al. The Amsterdam Cohort of Gender Dysphoria Study (1972–2015): trends in prevalence, treatment, and regrets. *J Sex Med* 2018; 15: 582–590.
- 43 van der Loos M, Hannema SE, Klink DT, et al. Continuation of gender-affirming hormones in transgender people starting puberty suppression in adolescence: a cohort study in the Netherlands. *Lancet Child Adolesc Health* 2022; 6: 869–875.
- 44 Gupta P, Patterson BC, Chu L, et al. Adherence to gender affirming hormone therapy in transgender adolescents and adults: a retrospective cohort study. *J Clin Endocrinol Metab* 2023; 108: e1236–e1244.
- 45 Olson KR, Raber GF, Gallagher NM. Levels of satisfaction and regret with gender-affirming medical care in adolescence. *JAMA Pediatr* 2024; 178: 1354–1361.
- 46 Kaltiala R, Helminen M, Holttinen T, Tuisku K. Discontinuing hormonal gender reassignment: a nationwide register study. *BMC Psychiatry* 2024; 24: 566.
- 47 Butler G, Adu-Gyamfi K, Clarkson K, et al. Discharge outcome analysis of 1089 transgender young people referred to paediatric endocrine clinics in England 2008–2021. *Arch Dis Child* 2022; 107: 1018–1022.
- 48 MacKinnon KR, Expósito-Campos P, Gould WA. Detransition needs further understanding, not controversy. *BMJ* 2023; 381: e073584.
- 49 Sexual Orientation and Gender Identity Change Efforts Survivors. SOGICE Survivors Statement — calling for action on: the LGBTQ+ conversion movement, version 4. July 2020. <https://sogicesurvivors.com.au/sogice-survivor-statement/> (viewed June 2024).
- 50 Hill AO, Lyons A, Jones J, et al. Writing Themselves In 4: the health and wellbeing of LGBTQ+ young people in Australia 2020–2021. Melbourne: Australian Research Centre in Sex, Health and Society, La Trobe University, 2021. <https://www.latrobe.edu.au/arcs/hs/work/writing-themselves-in-4> (viewed Aug 2024).
- 51 Marconi E, Monti L, Marfoli A, et al. A systematic review on gender dysphoria in adolescents and young adults: focus on suicidal and self-harming ideation and behaviours. *Child Adolesc Psychiatry Ment Health* 2023; 17: 110.
- 52 Lee WY, Hobbs JN, Hobaica S, et al. State-level anti-transgender laws increase past-year suicide attempts among transgender and non-binary young people in the USA. *Nat Hum Behav* 2024; 8: 2096–2106.
- 53 Biggs M. Suicide by clinic-referred transgender adolescents in the United Kingdom. *Arch Sex Behav* 2022; 51: 685–690.
- 54 Veale JF, Peter T, Travers R, Saewyc EM. Enacted stigma, mental health, and protective factors among transgender youth in Canada. *Transgender Health* 2017; 2: 207–216.
- 55 Russell ST, Pollitt AM, Li G, Grossman AH. Chosen name use is linked to reduced depressive symptoms, suicidal ideation, and suicidal behavior among transgender youth. *J Adolesc Health* 2018; 63: 503–505.
- 56 Fisher AD, Ristori J, Romani A, et al. Back to the future: is GnRHa treatment in transgender and gender diverse adolescents only an extended evaluation phase? *J Clin Endocrinol Metab* 2024; 109: 1565–1579.
- 57 Allen LR, Watson LB, Egan AM, Moser CN. Well-being and suicidality among transgender youth after gender-affirming hormones. *Clin Pract Pediatr Psychol* 2019; 7: 302–311.
- 58 Hidalgo MA, Ehrensaft D, Tishelman AC, et al. The gender affirmative model: what we know and what we aim to learn. *Hum Dev* 2013; 56: 285–290.
- 59 Zucker KJ. [Children with gender identity disorder: is there a best practice?] [French] *Neuropsychiatrie de l'Enfance et de l'Adolescence* 2008; 56: 358–364.
- 60 Hembree WC, Cohen-Kettenis PT, Gooren L, et al. Endocrine treatment of gender-dysphoric/gender-incongruent persons: an endocrine society clinical practice guideline. *J Clin Endocrinol Metab* 2017; 102: 3869–3903.
- 61 Allen LR, Adams N, Ashley F, et al. Principlism and contemporary ethical considerations for providers of transgender health care. *Int J Transgend Health* 2024; 1–19.
- 62 Tollit MA, May T, Maloof T, et al. The clinical profile of patients attending a large, Australian pediatric gender service: a 10-year review. *Int J Transgend Health* 2023; 24: 59–69.
- 63 Kelly F, Giordano S, Telfer MM, Pang KC. Parental consent and the treatment of transgender youth: the impact of *Re Imogen*. *Med J Aust* 2022; 216: 219–221. <https://www.mja.com.au/journal/2022/216/5/parental-consent-and-treatment-trans-gender-youth-impact-re-imogen>
- 64 Olson KR, Durwood L, DeMeules M, McLaughlin KA. Mental health of transgender children who are supported in their identities. *Pediatrics* 2016; 137: e20153223.
- 65 Amos N, Hill AO, Jones J, et al. Affirming educational and workplace settings are associated with positive mental health and happiness outcomes for LGBTQ+ youth in Australia. *BMC Public Health* 2023; 23: 1421.
- 66 Skelton S, Riggs DW, Pullen Sansfacon A, et al. "It just feels really nice when people call me by my name": accounts of gender euphoria among Australian trans young people and their parents. *J Gen Stud* 2024; 33: 470–482.
- 67 Newhook JT, Winters K, Pyne J, et al. Teach your parents and providers well: call for refocus on the health of trans and gender-diverse children. *Can Fam Physician* 2018; 64: 332–335.
- 68 Adams N, Pearce R, Veale J, et al. Guidance and ethical considerations for undertaking transgender health research and institutional review boards adjudicating this research. *Transgend Health* 2017; 2: 165–175.
- 69 Ashley F, Tordoff DM, Olson-Kennedy J, Restar AJ. Randomized-controlled trials are methodologically inappropriate in adolescent transgender healthcare. *Int J Transgend Health* 2024; 25: 407–418.
- 70 Cass H. Independent review of gender identity services for children and young people: interim report. February 2022. <https://cass.independent-review.uk/home/publications/interim-report/> (viewed 08/2024).
- 71 Heathcote C, Taylor J, Hall R, et al. Psychosocial support interventions for children and adolescents experiencing gender

- dysphoria or incongruence: a systematic review. *Arch Dis Child* 2024; 109 (Suppl 2): s19-s32.
- 72 UK Government Home Office. Hate crime, England and Wales, 2022 to 2023, 2nd ed. 2 November 2023. <https://www.gov.uk/government/statistics/hate-crime-england-and-wales-2022-to-2023/hate-crime-england-and-wales-2022-to-2023> (viewed Aug 2024).
- 73 Morgan H, Lamprinakou C, Fuller E, Albakri M. Attitudes to transgender people. Manchester: Equality and Human Rights Commission, 2020. https://www.equalityhumanrights.com/sites/default/files/attitudes_to_transgender_people.pdf (viewed July 2025).
- 74 Montiel-McCann CS. "It's like we are not human": discourses of humanisation and otherness in the representation of trans identity in British broadsheet newspapers. *Fem Media Stud* 2023; 23: 2962-2978.
- 75 Dickey B. Transphobic truth markets: comparing trans-hostile discourses in British trans-exclusionary radical feminist and US right-wing movements. *DiGeSt – Journal of Diversity and Gender Studies* 2023; 10: 33-47.
- 76 Blass RB, Bell D, Saketopoulou A. Can we think psychoanalytically about transgenderism? An expanded live Zoom debate with David Bell and Avgi Saketopoulou, moderated by Rachel Blass. *Int J Psychoanal* 2021; 102: 968-1000.
- 77 The Cass Review. Clinical engagement [website]. April 2024. <https://cass.independent-review.uk/contribute-to-the-review/clinical-engagement/> (viewed June 2024).
- 78 Henrickson M, Giwa S, Hafford-Letchfield T, et al. Research ethics with gender and sexually diverse persons. *Int J Environ Res Public Health* 2020; 17: 6615.
- 79 Meade NG, Lepore C, Oleski CL, McNamara M. Understanding and addressing disinformation in gender-affirming health care bans. *Transgend Health* 2024; 9: 281-287.
- 80 Fernández R, Guillaumon A, Cortés-Cortés J, et al. Molecular basis of gender dysphoria: androgen and estrogen receptor interaction. *Psychoneuroendocrinology* 2018; 98: 161-167.
- 81 Australian Bureau of Statistics. 4102.0 Australian social trends, 1998. Family formation: family planning [website]. 3 June 1998. <https://www.abs.gov.au/ausstats/abs@.nsf/2f762f95845417aeca25706c00834efa/e50a5b60e048fc07ca2570ec001909fb!OpenDocument> (viewed Feb 2025).
- 82 Devor H. FTM: female-to-male transsexuals in society. Bloomington and Indianapolis (IN): Indiana University Press, 1997.
- 83 Cohen-Kettenis PT, van Goozen SH. Pubertal delay as an aid in diagnosis and treatment of a transsexual adolescent. *Eur Child Adolesc Psychiatry* 1998; 7: 246-248.
- 84 Cohen-Kettenis PT, van Goozen SH. Sex reassignment of adolescent transsexuals: a follow-up study. *J Am Acad Child Adolesc Psychiatry* 1997; 36: 263-271.
- 85 de Vries AL, McGuire JK, Steensma TD, et al. Young adult psychological outcome after puberty suppression and gender reassignment. *Pediatrics* 2014; 134: 696-704.
- 86 Smith YL, van Goozen SH, Cohen-Kettenis PT. Adolescents with gender identity disorder who were accepted or rejected for sex reassignment surgery: a prospective follow-up study. *J Am Acad Child Adolesc Psychiatry* 2001; 40: 472-481.
- 87 Khatchadourian K, Amed S, Metzger DL. Clinical management of youth with gender dysphoria in Vancouver. *J Pediatr* 2014; 164: 906-911.
- 88 Lothstein LM. The adolescent gender dysphoric patient: an approach to treatment and management. *J Pediatr Psychol* 1980; 5: 93-109.
- 89 Carmichael P, Butler G, Masic U, et al. Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PLoS One* 2021; 16: e0243894.
- 90 van der Loos M, Vlot MC, Klink DT, et al. Bone mineral density in transgender adolescents treated with puberty suppression and subsequent gender-affirming hormones. *JAMA Pediatr* 2023; 177: 1332-1341.
- 91 Arnoldussen M, Hooijman EC, Kreukels BP, de Vries AL. Association between pre-treatment IQ and educational achievement after gender-affirming treatment including puberty suppression in transgender adolescents. *Clin Child Psychol Psychiatry* 2022; 27: 1069-1076.
- 92 The Cass Review. Lived Experience Focus Groups. 2024 April 2024. <https://cass.independent-review.uk/contribute-to-the-review/lived-experience-focus-groups/> (viewed June 2024).
- 93 MacKinnon KR, Ashley F, Kia H, et al. Preventing transition "regret": an institutional ethnography of gender-affirming medical care assessment practices in Canada. *Soc Sci Med* 2021; 291: 114477.
- 94 Winter S, Diamond M, Green J, et al. Transgender people: health at the margins of society. *Lancet* 2016; 388: 390-400.
- 95 Taylor J, Hall R, Heathcote C, et al. Clinical guidelines for children and adolescents experiencing gender dysphoria or incongruence: a systematic review of guideline quality (part 1). *Arch Dis Child* 2024; 109 (Suppl 2): s65-s72.
- 96 Taylor J, Mitchell A, Hall R, et al. Masculinising and feminising hormone interventions for adolescents experiencing gender dysphoria or incongruence: a systematic review. *Arch Dis Child* 2024; 109 (Suppl 2): s48-s56.
- 97 Taylor J, Mitchell A, Hall R, et al. Interventions to suppress puberty in adolescents experiencing gender dysphoria or incongruence: a systematic review. *Arch Dis Child* 2024; 109 (Suppl 2): s33-s37.
- 98 Hall R, Taylor J, Hewitt CE, Heathcote C, Jarvis SW, Langton T, et al. Impact of social transition in relation to gender for children and adolescents: a systematic review. *Arch Dis Child* 2024; 109 (Suppl 2): s12-s18.
- 99 Sackett DL, Rosenberg WM, Gray JA, et al. Evidence based medicine: what it is and what it isn't. *BMJ* 1996; 312: 71-72.
- 100 Wiersma M, Kerridge I, Lipworth W. Dangers of neglecting non-financial conflicts of interest in health and medicine. *J Med Ethics* 2018; 44: 319-322. ■