Medical Observer **Opinion**

Why have the Cass Review's alarming findings had no effect on Australia's gender clinics?

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Dr Hilary Cass.

Compared with the usual calm of public policy debates, the Cass Review represents a political and medical firestorm.

Its findings led UK health services to ban puberty blockers for routine use in those under 18 with gender dysphoria — a ban which in my view should also be adopted in Australia, to protect vulnerable children from harm.

The heart of the review was an evaluation of all available research which found no strong evidence that puberty blockers improved the health or mental health of children and adolescents with gender dysphoria.

There has been fierce backlash to Cass in the UK and elsewhere, with the British Medical Association asking for the blocker ban to be reversed; and resistance to the backlash, with nearly 900 doctors expressing dismay at the BMA's action.

In the numerous critiques of Cass now available, the main charges seem to be that Cass was biased and deliberately excluded key evidence, concerns shared by Dr Corinne Glenn in a recent article published on the *AusDoc* website.

Dr Glenn declared that Cass had "excluded a large number of studies that support the use of medications in gender affirmation for children, as these were not systemic reviews or randomised controlled trials".

As a result, she said, the review failed to recognise the benefits of puberty-blocking medication for young people.

This response is rooted in a myth used to prevent any discussion of the implications of the Cass Review for gender medicine in Australia.

Cass was initiated by NHS England because of concerns raised by clinical whistleblowers, patients, families and English courts that the gender-affirming care model was harming children and adolescents.

The review was based on a comprehensive review over four years grounded in robust evidence; complemented by exhaustive efforts to engage with the lived experience of patients, parents, advocacy groups, clinicians and other professionals; and informed by international guidelines and policymakers.

Cass evaluated the very same medical guidelines — those produced by the Royal Children's Hospital in Melbourne — that specify how gender-affirming care in Australia's public youth gender clinics should be practised.

These guidelines have been adopted by every Australian public gender service for minors.

Cass concluded that these guidelines had neither the methodological rigour (19%) nor the editorial independence (14%) to be acceptable.

In layman's terms, this means that the guidelines used by every Australian gender service for minors cannot be trusted to be reliable or unbiased.

This carries some irony, because it's the same charge made by critics of the Cass Review, including Dr Glenn.

But for me, despite (or perhaps because of) the scope, detail and quality of the Cass Review, critics have raised largely spurious objections based on misunderstandings of evidence-based medicine.

Dr Glenn argues that the Cass Review leadership did not include any transgender people or gender-affirming clinicians, and that this was a fundamental flaw.

This echoes international critics such as assistant professor of paediatrics Meredithe McNamara, of Yale University, and colleagues, in their recent white paper, *An Evidence-Based Critique of "The Cass Review" on Gender-Affirming Care for Adolescent Gender Dysphoria*.

However, it was a conscious decision to entrust the leadership of the Cass Review to experts not directly involved in the provision of gender-affirming care.

Far from "excluding subject matter experts, or those who these policies would directly impact", as Dr Glenn suggests, the review made extensive efforts to seek the opinions and record the experiences of both groups.

It is widely argued that it was an oversight for the Cass Review not to include research on the use of puberty blockers for clinical conditions like precocious puberty and endometriosis.

However, Cass explicitly addresses this concern, noting that puberty blockers are used to bring pathologically high hormones back to normal in prepubescent children with precocious puberty, while they are used to block the normal rise of hormones in adolescent children with gender dysphoria.

Cass justified the recommendation to cease the use of puberty blockers outside research on the basis that there was no good evidence it improved patient health or mental health, while there has not been enough research to manage risks of significant harm to sexual and neurocognitive development, gender identity and bone density.

The fundamental error is the claim that by excluding low-quality trials, Cass "doesn't recognise the benefits of puberty-blocking medication for young people", to quote Dr Glenn.

A FAQ section on the review website concisely addresses why this criticism is mistaken.

This FAQ is well worth taking the time to read for those who have read the numerous commentaries about Cass and its alleged failings.

It points out that Cass used the same bar for evidence expected of all systematic reviews; included all well-designed and conducted studies, not limited to randomised controlled trials (RCTs); and synthesised all high-quality and moderate-quality reviews, which was 58% of the 103 identified, none of which were RCTs.

Cass commissioned seven systematic reviews covering epidemiology; treatment outcomes of social transition, psychosocial supports, puberty blockers, hormone treatments, and care pathways; and international gender medicine clinical guidelines.

The systematic review on masculinising/feminising hormone treatments found one high-quality cohort study.

In this, Jensen and colleagues reviewed data from 83 patients at a paediatric gender clinic to compare the dose of hormone therapy in patients who either were or were not taking puberty blockers.

They found that hormone doses were lower in those taking puberty blockers. The type and frequency of side effects were found to be similar, although the severity of those side effects was not assessed.

The systematic review commissioned by Cass on puberty blockers found no high-quality studies examining the effect of puberty blockers on health and mental health.

The review's synthesis of studies described evidence that puberty blockers did delay puberty in gender dysphoric patients, and that height increased, although less than expected.

However, it also reported "limited and/or inconsistent evidence … in relation to gender dysphoria, psychological and psychosocial health, body satisfaction, cardiometabolic risk, cognitive development and fertility".

Two key concerns across the studies were that samples were not representative of the population of paediatric patients with gender dysphoria, and that selected control groups were not comparable.

There was only one study that attempted to compare puberty suppression with psychosocial care.

In this, Costa and colleagues reported a cohort study that reported psychosocial function in patients treated with puberty blockers compared with patients not immediately available for puberty suppression who received only psychological support.

According to Costa and colleagues, the comparison group did not receive puberty blockers "because of possible comorbid psychiatric problems and/or psychological difficulties".

Both groups' psychosocial function improved, and while the puberty blocker group improved more, there was no statistical significance between the groups after both had received 18 months of psychological support and the puberty blocker group had received 12 months of puberty blockers after six months of observation.

Both the study's authors and the Cass-commissioned systematic review noted design problems, with Costa and colleagues stating "results could have also different explanations because of the study design".

Due to these limitations, Cass concluded there was "no evidence that puberty blockers improve body image or dysphoria, and very limited evidence for positive mental health outcomes".

This is consistent with my understanding of the current state of the literature.

From the first paragraph of the foreword, the Cass Review made it clear that it would not address the validity or reliability of the diagnosis of gender dysphoria which is used to justify gender-affirming care.

To quote Dr Hilary Cass directly: “This review is not about defining what it means to be trans, nor is it about undermining the validity of trans identities, challenging the right of people to express themselves, or rolling back on people’s rights to healthcare.

“It is about what the healthcare approach should be, and how best to help the growing number of children and young people who are looking for support from the NHS in relation to their gender identity.”

As I have pointed out elsewhere, the treatments offered under gender-affirming care and the diagnoses of gender dysphoria and gender incongruence are based on the consensus of a small group of motivated clinicians, rather than scientific evidence or theories of healthy human development.

In my opinion, in the absence of evidence or theory that gender dysphoria exists as a valid and reliable diagnosis, ethical medical practice dictates that doctors should not support novel treatment paradigms for which there is also no evidence of benefit.

Instead, we should rely on existing evidence-based psychotherapeutic and psychopharmacologic treatments for psychosocial distress in paediatric patients, and support high-quality research to establish reliable diagnoses and treatments for gender dysphoria in minors.

I have also argued that the drive to expand gender services for minors abandons the usual medical safeguards of comprehensive assessment, reliable diagnosis, evidence-based treatment, and careful monitoring for benefits and harms.

These processes are designed to honour the first principle of medicine, “to do no harm”.

By contrast, gender-affirming care prioritises patient autonomy over health.

This model holds that the only question a doctor need ask before providing treatment to a patient is whether that patient can demonstrate an intellectual understanding of the nature and consequences of the treatment.

Under the informed consent model, it makes no difference whether the doctor believes the treatment will benefit or harm the patient, only whether they understand it.

This abandons patient safety to promote patient autonomy.

The Cass Review explicitly rejects the informed consent model as incompatible with “the safeguarding of minors”.

In my opinion, the Cass Review is a methodologically sound and clinically persuasive report that judiciously evaluates the available evidence on gender-affirming care for minors, including puberty blockers and hormone therapy.

Its recommendations are informed by the experiences and advice of clinicians, patients, families and decision-makers.

Critics, including those in Australia, do not cite evidence contradicting Cass’s central conclusions.

Instead, based on the assumptions of the informed consent model of gender-affirming care, they deny that the primary responsibility of every doctor is to do no harm to our patients.

The fact that the Cass Review seems to have had so little impact on the care models used in Australia alarms me.

As Dr Cass says in the forward to her report: “This is an area of remarkably weak evidence, and yet results of studies are exaggerated or misrepresented by people on all sides of the debate to support their viewpoint.

“The reality is that we have no good evidence on the long-term outcomes of interventions to manage gender-related distress.”

Editor’s note: In the next edition of Medical Observer out on Wednesday, we will re-publish an alternative view which questions the Cass review’s analysis and conclusions on use of puberty blockers written by Gideon Meyerowitz-Katz, an epidemiologist at the University of Wollongong, NSW.

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Read more: *Are Dr Jillian Spencer’s dark allegations against a state gender dysphoria clinic true?*