

The Cass Report – A Briefing

Executive Summary

The Cass Report is fundamentally flawed. It undermines legal competence around medical treatment, ignores complexities in medical ethics, and dismisses almost all existing clinical evidence on trans people’s healthcare. Underpinning this report is the idea that being trans is an undesirable outcome rather than a natural facet of human diversity.

The Report dismisses almost all evidence around existing protocols for treating trans young people, including lived experience, on the spurious grounds it does not meet unobtainable levels of proof. The team do not apply the same rigorous evidential tests to their own proposals. Indeed, if such evidential requirements were imposed consistently and equally across the NHS, it would mean that many routine treatments, including treatments for menopause, palliative care and mental health, would also have to cease.

In the detailed sections, some of which do not seem consistent with the summary section, the proposals appear to advocate no medical interventions before the age of 25 because individuals may change their minds. This represents significant ‘scope creep’ into the provision of adult services and has significant implications for Gillick Competence and Fraser Guidelines. Again, such a principle applied uniformly would halt or pause most NHS treatment, particularly paediatric treatment. It is also highly questionable¹.

Underpinning this final report is an assumption that being trans and requiring medical attention is something to be avoided, despite what is said in the summary. Otherwise there would not be so much emphasis on “*time to think*” in ways which clearly demonstrate this is only considered successful when the outcome is desistance, misreading studies which show low rates of desistance and detransition, and proposing restrictions on medical treatment.

Cass has tried valiantly to mask the double standards which are applied to trans-related healthcare. However, these double standards and the shoddiness of the Report’s contents are starkly revealed under scrutiny.

1. Background

Dr Hilary Cass, a paediatrician, was commissioned by NHS England to undertake a review of trans-related healthcare for under-18s, following a series of revelations about the Gender Identity Development Service (GIDS).

The Review Team produced an Interim Report in February 2022, which called for more research into the efficacy of puberty blockers.²

The Review Team published their final report on 10 April 2024.³

¹ See Appendix A for a neuroscientist’s view

² Cass Review, Interim Report, February 2022 - <https://cass.independent-review.uk/home/publications/interim-report/>

³ Cass Review, Final Report, 10 April 2024 - <https://cass.independent-review.uk/home/publications/final-report/>

All references which refer to paragraphs or recommendations refer to this report.

2. Conclusions

The Report starts from the position that trans children deserve holistic, timely and individual healthcare which meets their needs. It states that while not all trans children will need medical treatment, some will.

It claims that the level of research into medical pathways and treatments in this area is very poor, and calls for more research. It calls for all people receiving puberty blockers and cross-sex hormones to be entered into a longitudinal study to examine their efficacy.

It calls for greater investment into services for trans young people and greater consistency in and oversight of those services. It makes several recommendations, some of which are in conflict with current medical ethics and current law, many of which breach NHS standards and can therefore be seen as discriminatory towards trans people.

There are many issues with the Report – see Executive Summary section above and Analysis of the Cass Report section below.

3. Outcomes

It is up to NHS England what it decides to implement and what it decides to ignore. However NHS England does not currently have a good track record in this area:

- It acted within 2 hours to remove funding for new prescriptions of puberty blockers to trans children⁴ after the initial judgement in the Bell v Tavistock judicial review⁵. When the Tavistock won their appeal, NHS England's decision was not overturned.⁶
- It barred trans people from being part of the Cass Review core team, while advocates of conversion practices were allowed to be part of the core team.⁷
- On 12 March 2024, it announced an effective ban on all puberty blocker prescriptions for trans children and young people unless the recipients agreed to participate in (an as yet undefined) clinical study into that medication.⁸ This was four weeks before the Cass Report was published. This announcement pre-empted the Report, raising questions about why the Report was now necessary.
- It has failed to recruit the necessary staff for two new gender identity clinics for young people⁹ after GIDS was closed on 28 March 2024¹⁰, and has failed to provide any gender-related services for those who were referred to GIDS after 31 March 2022. The waiting list for young people's gender services is now estimated to be between 3 and 4 years.

⁴ The Guardian, 1 December 2020 - <https://www.theguardian.com/world/2020/dec/01/children-who-want-puberty-blockers-must-understand-effects-high-court-rules>

⁵ Bell v Tavistock, initial ruling, 1 December 2020 - <https://www.judiciary.uk/wp-content/uploads/2020/12/Bell-v-Tavistock-Judgment.pdf>

⁶ The Guardian, 17 September 2021 - <https://www.theguardian.com/society/2021/sep/17/appeal-court-overturns-uk-puberty-blockers-ruling-for-under-16s-tavistock-keira-bell>

⁷ See section 4.3 below

⁸ The Guardian, 12 March 2024 - <https://www.theguardian.com/society/2024/mar/12/children-to-stop-getting-puberty-blockers-at-gender-identity-clinics-says-nhs-england>

⁹ iNews, 1 April 2024 - <https://inews.co.uk/news/nhs-gender-clinic-young-people-understaffed-not-ready-2982002>

¹⁰ GIDS, March 2024 - <https://gids.nhs.uk/>

- It announced on 10 April 2024, shortly after the Cass Report was published, that it was bringing forward the review of the service specification for adult services by a year and initiating a review of adult clinics, based on the contents of the Cass Report (which was not aimed at adult services).¹¹
- It has announced that it is appointing Sir Simon Wessely to head up a new research oversight board. Wessely concentrates on psychosocial models for poorly understood conditions¹² such as ME, CFS¹³ and Gulf War Syndrome. The concern is that he views trans people in the same light – namely that being trans is not a ‘real’ condition or does not need medication – and will disregard any evidence that counters this view.

4. Analysis of the Cass Report

4.1 Overarching Aim

Cass starts by stating that *“the aim of this Review is to ensure that children and young people who are questioning their gender identity or experiencing gender dysphoria receive a high standard of care. Care that meets their needs, is safe, holistic, and effective.”*¹⁴

However, the danger is that these are just warm words, designed to make the Report look less threatening than it may, in fact, be.

4.2 What’s Good?

The Report states that *“Generalisations about children and young people questioning their gender identity or experiencing gender dysphoria are unhelpful. People are individuals.”*¹⁵ and *“There should be no hierarchy of gender identity or how this is expressed, be that socially or medically. Nobody should feel the need to invalidate their own experience for fear it reflects badly on other identities and choices.”*¹⁶

The Report states that *“For some, the best outcome will be transition, whereas others may resolve their distress in other ways. Some may transition and then de/retransition and/or experience regret. The NHS needs to care for all those seeking support.”*¹⁷

The Report states that *“there are increasing numbers of children and young people seeking support from the NHS for gender-related distress. They should receive the same quality of care as other children and young people experiencing distress.”*¹⁸

The Report states that *“Given the increasing numbers of gender diverse and gender questioning young people, it is important that all clinical staff can support them in a range of settings across the NHS.”*¹⁹ and *“there is a need for all clinicians across the NHS to receive better training on how to work sensitively and effectively with trans, non-binary and gender-questioning young people.”*²⁰

¹¹ NHS England, 10 April 2024 - <https://www.england.nhs.uk/commissioning/spec-services/npc-crg/gender-dysphoria-clinical-programme/implementing-advice-from-the-cass-review/>

¹² ME-pedia - https://me-pedia.org/wiki/Simon_Wessely

¹³ Inclusion London, 18 October 2017 - <https://www.inclusionlondon.org.uk/campaigns-and-policy/act-now/letter-prime-minister-reconsider-appointment-professor-simon-wessely/>

¹⁴ Summary and Recommendations, para 1

¹⁵ Summary and Recommendations, para 13

¹⁶ Summary and Recommendations, para 13

¹⁷ Summary and Recommendations, para 13

¹⁸ Summary and Recommendations, para 14

¹⁹ Summary and Recommendations, para 115

²⁰ Summary and Recommendations, para 120

The Report highlights the problems with the NHS England requirement to issue a new NHS number if a patient's gender changes.²¹

4.3 Evidence Base

The report claims that *“the evidence base, particularly in relation to puberty blockers and masculinising / feminising hormones, had already been shown to be weak.”*²²

This is an alarming claim. The University of York was commissioned to undertake an evidence review, and Tilly Langton was engaged to design the review methodology. Langton was part of a group which promoted 'gender exploratory therapy' together with anti-trans groups alongside pro-trans groups when training NHS staff.²³ 'Gender Exploratory Therapy' holds trans identities in suspicion, promoting resistance to any form of transition. As such it is a form of conversion practice.

The Cass Report reveals that it discarded huge amounts of medical evidence, both from the UK and across the world. Out of 102 studies into puberty blockers and hormones, only 2 were included by the Cass Review team.²⁴

Further, the Report criticises the quality of evidence that WPATH (the international body which develops and monitors standards in trans healthcare worldwide) relies upon.²⁵ No international evidence was considered good enough.

Many, if not most, of these exclusions are on the basis of the studies not including 'blinding' and a control group, which would be not only an unethical approach to research but also practically impossible due to the clear impacts of either puberty blockers or hormones on the patients.

In November 2022, WPATH rejected criticism around the lack of evidence around puberty blockers, stating that most of the evidence included the effects of other medication and interventions and that this was appropriate, and found that puberty blockers did have a beneficial effect for trans young people.²⁶ This was ignored by the Review Team and by NHS England. For a long-established international medical standards body to simply be ignored is highly concerning.

The Report includes a graph of the number of referrals to GIDS between 2003 and 2015/16.²⁷ The graph ends with a steep slope upwards. The number of referrals to GIDS is known until 2020/21, so the question arises – why has only that part of the graph been selected?

The full graph shows that the number of referrals stops increasing 'exponentially' from 2015/16, and for the last 3 years for which data is available, shows that the number of referrals has recently plateaued. Such data is inconvenient for a narrative that relies on an inexplicable explosion in need, as a parallel question can also be asked – why has demand flattened out at between 2,500 and 3,000 referrals a year? This question isn't raised let alone addressed anywhere in the Report.

²¹ Summary and Recommendations, para 161

²² Summary and Recommendations, para 6

²³ Trans Safety Network, 3 August 2023 - <https://transafety.network/posts/gosh-exploratory-therapy/>

²⁴ Puberty Blockers, para 14.19, and Masculinising/feminising Hormones, para 15.16

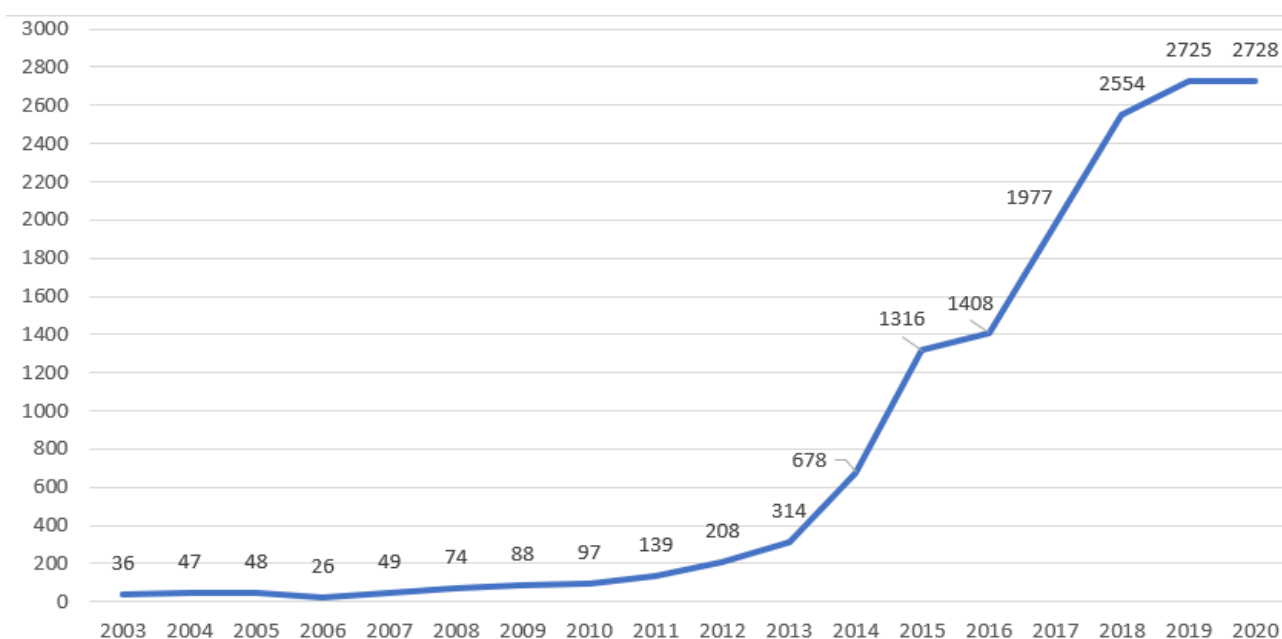
It seems that a number of these studies were excluded because they were not “double-blind” studies, meaning that patients should not be aware of what medication they were receiving. For sex hormone therapy in particular, such a study is impossible, as recipients would soon become aware of physical changes induced by such medication.

²⁵ Summary and Recommendations, para 47

²⁶ WPATH, 25 November 2022 -

https://www.wpath.org/media/cms/Documents/Public%20Policies/2022/25.11.22%20AUSPATH%20State%20ment%20reworked%20for%20WPATH%20Final%20ASIAPATH.EPATH.PATHA.USPATH.pdf?_t=1669428978

²⁷ Summary and Recommendations, para 30



Number of Referrals to GIDS by financial year – source www.gires.org.uk²⁸

The Report states that “young people are on a developmental trajectory that continues to their mid-20s”²⁹. Allied with the recommendation that children’s services should continue for those up the age of 25, this implies that people are insufficiently able to make key decisions until they are 25. However, there is no evidence of such a cut-off.

Neuroscientist Dean Burnett highlights that the study underpinning this view simply stopped researching people who reached 25³⁰, that the brain is just one organ that undergoes a process of continual maturation, that there is no magical age at which one suddenly becomes intellectually able, and that if this assertion is made then similar questions about when one stops being intellectually able come into play.

In its background, the Report claims that “For many centuries transgender people have been predominantly trans females, commonly presenting in adulthood.”³¹ No evidence is supplied to support this assertion of gender bias, as no such evidence exists.

Key to the report is a series of recommendations. However, there is very little evidence to show that any of these recommendations will be effective. For a report which places so much importance on the need for evidence, this lack of evidence is notable.

4.4 Ethical Issues

The Interim Report proposed a ‘data linkage’ study, where records from the adult clinics were matched with all GIDS records (as far as possible) to determine outcomes.³² The Gender Recognition Act was amended to allow this research to take place³³. Concerns were raised by some medical ethics specialists, but these were eventually overridden by the relevant NHS ethics boards.

²⁸ GIRES - <https://www.gires.org.uk/tavistock-gender-identity-development-service-data/>

Note that the closure of GIDS has removed the source data from its, now minimal, website

²⁹ Summary and Recommendations, para 36

³⁰ www.twitter.com/garwboy/status/1778137144747274433 - See Appendix A for the tweets

³¹ Understanding the Patient Cohort, para 114

³² Summary and Recommendations, para 91

³³ Gender Recognition (Disclosure of Information) (England) Order 2022 - <https://www.legislation.gov.uk/uksi/2022/742/made>

Some adult clinics also expressed ethical concerns³⁴, particularly over the need to provide all records for those aged 25 and under to see if there are any matches. The Report's recommendation is to ignore those concerns, and request the DHSC mandates the adult clinics' compliance.³⁵ NHS England has confirmed that it is instructing all adult clinics to comply, regardless of any ethical concerns.³⁶

Further, the Report recommends that every young trans person can only access puberty blockers and/or cross-sex hormones if they agree to enter an as yet undefined clinical study³⁷. Coercion into studies is also understood to be unethical, particularly if the medication being studied has been in widespread medical practice for a number of years (as both puberty blockers and cross-sex hormones have been).

4.5 Internal Inconsistencies

The Report contains a number of areas where it either contradicts itself or does not hold itself to the same high standards that it claims to hold others to:

- It states that there is no established definition of 'social transition'³⁸, but in the very next paragraph introduces (but fails to define) the concepts of 'full social transition' and 'partial social transition'.
- It states that there is a "*substantial increase in rates of mental health problems in children and adolescents across the UK over the past decade*"³⁹, but also wonders why there is a similar escalation of people assigned female at birth with "*high levels of neurodiversity and/or mental health issues*" to GIDS⁴⁰.
- It states that gender incongruence is caused by "*a combination of biological, psychological, social and cultural factors*"⁴¹ yet, despite this complexity and also that "*a formal diagnosis of gender dysphoria ... is not reliably predictive of whether that young person will have longstanding gender incongruence in the future*"⁴², repeatedly implies that diagnostic tests can be developed to determine whether medical intervention will be beneficial or not⁴³.
- It states that studies into puberty blockers showed "*no changes in gender dysphoria or body satisfaction*"⁴⁴. Puberty blockers are unlikely to alleviate gender dysphoria as they are intended

³⁴ Appendix 4. Among the reasons adult clinics gave were (a) the use of paper records making compliance extremely labour intensive, especially to ensure data consistency; (b) a large number of records would need to be provided for a small number of matches; (c) ethical concerns and legal requirements mean that all patients would have to be given the chance to opt out; (d) those who were unlikely to opt out were likely to have other difficulties and conditions, which would skew any analysis; and (e) there was concern about how the results of the exercise would be reported, especially given some of the outcomes being monitored were outside clinics' control. Clinics also expressed concern about how independent of government and NHS England the study actually was.

³⁵ Recommendation 5 – "*NHSE ... should direct the gender clinics to participate in the data linkage study within the lifetime of the current statutory instrument.*"

³⁶ NHS England, 10 April 2024 - <https://www.england.nhs.uk/commissioning/spec-services/npc-crg/gender-dysphoria-clinical-programme/implementing-advice-from-the-cass-review/>

³⁷ Recommendation 6 – "*... a full programme of research should be established. This should look at the characteristics, interventions and outcomes of every young person presenting to the NHS gender services.*"

³⁸ Summary and Recommendations, para 71

³⁹ Summary and Recommendations, para 37

⁴⁰ Summary and Recommendations, para 31

⁴¹ Summary and Recommendations, para 34

⁴² Summary and Recommendations, para 98

⁴³ For example, Summary and Recommendations, para 115 "*... the service needs to include the appropriate skill mix to support both individuals for whom medical intervention is clinically indicated and those for whom it is not.*"

⁴⁴ Summary and Recommendations, para 82

as a pause on puberty, not a correction to puberty. It is concerning that an expert report makes this kind of elementary mistake.

- It states as a principle that *“For some, the best outcome will be transition, whereas others may resolve their distress in other ways.”*⁴⁵ However, in the detail of the report, the extension of children’s clinics to the age 25 is recommended because it would *“remove the need for transition at this vulnerable time”*⁴⁶, which seems to indicate that no surgeries or medical treatment would be available in those clinics until well into adulthood, counter to the legal principle of Fraser Guidelines.⁴⁷ There is no evidence which underpins the claim that those transitioning between the ages of 18 and 25 suffer adverse effects, and this proposal falls outside the remit of the Cass Review.

4.6 Claims without Evidence

The Cass Report states that *“Clinicians should apply the assessment framework developed [by the Review Team, which] should include screening for neurodevelopmental conditions.”*⁴⁸ It is not explained why this screening is necessary. Such comments and assumptions around autism occur a number of times throughout the report.

The Report states that *“the central aim is to help young people thrive ... For the majority of young people, a medical pathway may not be the best way to achieve this”*⁴⁹. There is no evidence supplied to support this assertion.

The Report states that *“in the UK and internationally, it is now the norm for many children and young people to present to gender clinics having undergone full or partial social transition.”*⁵⁰ There is no evidence supplied to support this assertion. To note this indicates that such behaviour is a concern, despite the years’ long waiting list. It is not clear why such behaviour should be a concern.

It states that *“those who had socially transitioned at an earlier age and/or prior to being seen in a clinic were more likely to proceed to a medical pathway.”*⁵¹ However, it also states *“the current evidence base suggests that children who present with gender incongruence at a young age are most likely to desist before puberty...”*⁵² This seems to be a contradiction, and no evidence is provided to support either statement.

It states that *“the exponential change in referrals over a particularly short five-year timeframe is very much faster than would be expected for normal evolution of acceptance of a minority group.”*⁵³ There is no evidence quoted which states any expected rate, and the report does not make any note of the fact that numbers being referred have largely plateaued at around 2,500 a year since 2016/17. The graph showing referrals appears edited to support a cause for alarm.

The Report states that *“.., some young adults have suggested that taking time to explore options is preferable.”*⁵⁴ It is not clear how many expressed this view, nor how many expressed alternative views. The Report consistently implies that there is comparability between those expressing regrets about treatment received, minimising the consistent finding in research that this population is smaller than

⁴⁵ Summary and Recommendations, para 13

⁴⁶ Pathways, para 19.28

⁴⁷ Care Quality Commission, 23 December 2022 - <https://www.cqc.org.uk/guidance-providers/gps/gp-mythbusters/gp-mythbuster-8-gillick-competency-fraser-guidelines>

⁴⁸ Recommendation 2

⁴⁹ Summary and Recommendations, paras 65 and 66

⁵⁰ Summary and Recommendations, para 75

⁵¹ Summary and Recommendations, para 76

⁵² Summary and Recommendations, para 144

⁵³ Summary and Recommendations, para 35

⁵⁴ Summary and Recommendations, para 101

regret rates for many other common medical procedures. Data quoted in the Report reveals the low numbers of desistors / detransitioners.⁵⁵

The Report states that *“Over time there has been an increasing acceptance that people choose to detransition for many reasons. The term has been rebadged by some as ‘retransition’.”*⁵⁶ There is no evidence to identify who is ‘rebadging’ this, as trans people are very clear about the difference between detransition and retransition.

4.7 Penalising Private Practice

The Report references long waiting lists to be seen at GIDS – *“Feedback from the lived experience groups presents [going to private practitioners] as ‘a forced choice (because the NHS provision is not accessible in a timely way) rather than a preference’”*⁵⁷. In such cases, parents may look for alternative provision. The NHS Constitution requires that the NHS investigates sourcing such alternative private provision if the wait exceeds 18 weeks.⁵⁸ There is no evidence that this actually happens in trans-related healthcare.

Such long waiting lists may be why *“it is now the norm for many children and young people to present to gender clinics having undergone full or partial social transition.”*⁵⁹

The Report recommends that those seeking private practice outside NHS standards should not necessarily be granted access to future NHS gender-related healthcare.⁶⁰ NHS guidance clearly states *“You’re still entitled to free care if you choose to pay for additional private care”*⁶¹. The recommendation is a proposal to penalise young children who see private practitioners because of the deficiency in the NHS offering. Puberty does not wait, certainly not for a few years, and can cause significant distress to trans young people.

4.8 Missing Concerns

There is no mention of the substantive effect that forcing children to go through unwanted puberty will have, although the section on puberty blockers states that, for *“transgender females, there is benefit in stopping irreversible changes such as lower voice and facial hair.”*⁶²

Other effects of not pausing puberty include trauma, stress of not fitting into social groups at school and college, and unnecessary difficulties for trans women in particular of fitting in, sometimes requiring additional surgeries and therapies which would otherwise be avoided and incur considerable cost to the NHS.

Some surgeries, such as tracheal shave and Adam’s apple reduction for trans women, are not covered by the NHS⁶³, meaning that trans girls will be penalised by not providing puberty blockers in such a way that the NHS will not remedy.

⁵⁵ For example, Clinical Approach and Clinical Management, para 13.11 – *“Of the 3,499 [GIDS] patients audited, 3,306 were included within the analysis. ... <10 patients detransitioned to their birth-registered gender”*

⁵⁶ Masculinising/feminising Hormones, para 15.47

⁵⁷ Summary and Recommendations, para 155

⁵⁸ NHS Constitution – <https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england>: *“You have the right to access certain services commissioned by NHS bodies within maximum waiting times, or for the NHS to take all reasonable steps to offer you a range of suitable alternative providers if this is not possible.”*

⁵⁹ Summary and Recommendations, para 75

⁶⁰ Recommendation 26

⁶¹ NHS England, 15 September 2022 - <https://www.nhs.uk/common-health-questions/nhs-services-and-treatments/if-i-pay-for-private-treatment-how-will-my-nhs-care-be-affected/>

⁶² Puberty Blockers, para 14.57

⁶³ NHS England, 28 May 2020 - <https://www.nhs.uk/conditions/gender-dysphoria/treatment/>

5. Summary

There are numerous issues of major concern with the Cass Report, from the way the Review Team was structured⁶⁴, through the way research was structured⁶⁵ and ethical considerations minimised⁶⁶, to the final recommendations which seem to rely on an unevidenced set of assumptions.

NHS England's response has been, once again, incredibly quick and cause for huge concern, starting with the appointment of a problematic medic to a senior oversight position, to bringing forward a review of adult trans healthcare services.

The fact that this short analysis describes many more problems than benefits, shows there is little to negate the view that this Review has been a political stitch-up with potentially huge implications for trans people. Simply asserting that something is independent does not make it so, especially when it seems to feed into the government narrative of the day.

The press coverage immediately following the publication of the report fed some of the misinformation, and appears to indicate that adult trans healthcare is now at risk.

The Report places NHS England outside the international consensus on trans healthcare, while NHS England says the review will be of "*international importance*".

TransActual, 11 April 2024

⁶⁴ Trans and non-binary people were not allowed to be part of the Review Team. However, there was no such restriction on those holding gender critical views, nor those who supported conversion practices.

⁶⁵ Section 4.3 above

⁶⁶ Section 4.4 above

Appendix A – Tweets by Dean Burnett

Dean Burnett is a neuroscientist who used to teach at the University of Cardiff and write in the Guardian. He has written a number of books explaining neuroscience principles to a wider audience.⁶⁷ He posted the following series of tweets starting at 8:05pm on 10 April 2024:

“If you’re under 25 your brain isn’t fully developed, so you can’t be trusted to make informed decisions”

I’m seeing a this a LOT lately, especially today [10 April 2024]. And it’s utter guff, based on hearsay, misunderstandings of neuroscience, or wilful ignorance.

Why? I’ll tell you why

Firstly, the whole ‘your brain stops developing at age 25’ thing is spurious anyway. The original studies that came up with this figure, they just didn’t include any subjects over 25. So that’s when the data... stopped.

But that doesn’t really mean anything.

Saying ‘the brain stops developing at age 25’ because you didn’t study anyone older is like saying ‘Olympic sprinters are only capable of running for 100m’.

I mean, they *clearly* can go for longer. That’s just when the race ends. It’s not the same thing.

But the ‘Your brain stops developing at 25’ thing is one of those mainstream claims that’s out there now, like ‘we only use 10% of our brain’.

I’m guilty of it, I accepted it as established fact many times. Some people on here steered me right, so I’m not pointing fingers

In truth, your brain likely never stops ‘developing’. We’re learning things, updating our neural connections and networks, for as long as we live. If we didn’t, we’d just be frozen in place. A non-developing brain is basically static. Which means, dead.

But even if we did accept that the brain is ‘done’ at age 25, what we’re actually saying is it’s finished *maturing*. But that doesn’t in any way mean that it’s underpowered or non-functioning before then. Far from it.

E.g. your lungs are still developing/growing, until your early twenties. But last I checked, everyone under 20 is still capable of breathing just fine. Better than most people, if anything.

Because ‘not fully mature’ is in no way the same thing as ‘doesn’t work properly’.

There seems to be this idea that an ‘undeveloped’ brain is like a half-built house: not fit for purpose until completed.

In reality, it’s more like evolution. Every step on the evolutionary ladder is a fully functioning species, they just change over time.

Teens in particular get a lot of stick for this. Their rebelliousness, they’re [sic] highly-emotional nature, it’s seen as proof they have something ‘wrong’ with their brains because they’re immature.

The opposite is true. Their brains are doing exactly what they evolved to do.

⁶⁷ <https://www.deanburnett.com/>

The risk-taking, emotive, exploratory, parent-rejecting tendencies of adolescents are seen in many social species, not just human. Unless it's the mother and father of all wild coincidences, this shows that teen brains are "meant" to do what they do.

Why? Well, if you're a species who likes familiarity and safety, you're at risk of stagnation. But if certain members of your population, particularly ones in their physical prime, tend to reject the norms and wander off to try new things, that'll stave off stagnation.

[And yes, I *have* covered this in more depth in my books. Two of them actually]

But basically, it's very much not evidence-based to look at under-25s and say 'Your brain isn't fully developed', when their brains are working exactly as nature intended, in so many ways.

And they're absolutely capable of thinking things through, making decisions, etc.

But even so, let's say it *were* true that under-25s have 'underdeveloped' brains, and thus can't be trusted to make decisions or hold views on important things.

This calls into doubt a huge number of things that are normal in our society.

We make teenaged school students choose GCSEs and A-Levels that will likely DETERMINE THE COURSE OF THEIR ENTIRE LIFE. If their brains are underdeveloped, how is this allowed? They need at least another decade before they can be allowed to make these decisions.

If under-25s are too neurologically underdeveloped to make decisions that affect their body and wellbeing, then that rules out all career athletes under that age. You can't possibly let a 18 year old take up a sport that comes with significant concussion risk, surely?

Also, let's follow the logic to its conclusion.

If having a brain functioning at its peak is a requirement of making important decisions, then it's probably more important to have a *maximum* age limit than a minimum. Because the older you are, the more your brain wears out

Thanks to basic entropy, if you're at retirement age, your brain will likely be losing fluid intelligence, the ability to reason, solve problems, etc.

Can you trust such people to make important decisions? If you insist and [sic] a peak-performance brain, then technically no

That's not my stance, in the slightest. But if you're going to make rigid rules that insist on individual's brains having the capability of a 'fully developed' one, then you can't ignore the fact that this development can be 'reversed' due to the consequences of age.

In any case, if we're going to insist on adulthood being determined by this sort of biological absolutism, then in the biological sense, an 'adult' organism is one that is capable of reproducing. So, humans are adults as soon as puberty hits [sic]. I.e. 11-12 years old.

No, I don't think any rational person in modern society would consider an 11yo an adult. There are countless other factors to consider

But that's tacit acknowledgement of the fact that hard biological boundaries as a decider of human development are a bad idea

[Hint hint]

Point is, it honestly doesn't matter what issue it's being applied to, the whole 'Those under 25 have underdeveloped brains' argument doesn't hold up any way you slice it.

It's often just an easy way of dismissing the valid perspective of younger people. Which isn't good.

/end