

NHS England

Interim Clinical Policy: Puberty suppressing hormones (PSH) for children and adolescents who have gender incongruence or dysphoria

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Section 1. Executive Summary

Background

As part of its gender incongruence/dysphoria services for children and young people, NHS England is proposing an interim clinical policy on the use of puberty suppressing hormones (PSH). The policy proposition is that puberty suppressing hormones (sometimes referred to as ‘puberty blockers’ or ‘hormone blockers’) are not recommended to be available as a routine commissioning option for the treatment of children and adolescents who have gender incongruence or dysphoria.

Currently, PSH are prescribed through the NHS for children and young people with a diagnosis of persistent gender dysphoria after a certain stage of pubertal development, alongside psychosocial and psychological support, and after review by NHS England’s Multi-Professional Review Group (MPRG). This review includes assurance that child safeguarding and child protection issues have been fully considered, that all necessary steps have been taken, and that all relevant information has been provided to and understood by the young person and their parents/carers.

In January 2020, NHS England commissioned the National Institute for Health and Care Excellence (NICE) to review the published evidence on the use of PSH¹. Nine observational studies were included in the evidence review, with NICE finding that, overall, there was no statistically significant difference in gender incongruence, mental health, body image and psychosocial functioning in children and adolescents treated with PSH. The quality of evidence for all these outcomes was assessed as very low certainty, with limited short-term and long-term safety data available. PSH may, however, reduce the expected increase in lumbar or femoral bone density during puberty.

A follow-up literature surveillance of nine further studies was undertaken by NHS England’s Clinical Effectiveness Team, supported by the Clinical Policy Team, in April 2023². In addition, further evidence was suggested during two weeks of targeted stakeholder consultation, which provided responses from 13 organisations, four clinicians/academics, and six individuals or carers/family members. In addition, the interim recommendations of the Cass Review³ were also considered.

¹ https://cass.independent-review.uk/wp-content/uploads/2022/09/20220726_Evidence-review_GnRH-analogues_For-upload_Final.pdf

² https://www.engage.england.nhs.uk/consultation/puberty-suppressing-hormones/user_uploads/literature-surveillance-report-on-gnrh-analogues-for-children-and-adolescents-with-gender-dysphoria-may-2023.pdf

³ <https://cass.independent-review.uk/>

These reviews resulted in NHS England concluding that there is not enough evidence to support the safety or clinical and cost effectiveness of PSH to make the treatment routinely available at this time. NHS England recommends that access to PSH for children and young people with gender incongruence/dysphoria should only be available as part of research.

Public consultation

In order to hear the views of patients, parents and carers, clinicians and service providers, as well as other interested parties, NHS England ran a public consultation between 3rd August and 1st November 2023. The consultation was published on its website alongside seven supporting documents:

- Consultation guide
- Interim clinical policy
- Stakeholder engagement report
- Equalities and health inequalities impact assessment
- Post-engagement evidence report
- Literature surveillance report
- NICE evidence review

The consultation asked three questions of respondents:

Question 1. Has all of the relevant evidence been taken into account?

Question 2. Does the equality and health inequality impact assessment (EHIA) reflect the potential impact that might arise as a result of the proposed changes?

Question 3. Are there any changes or additions you think need to be made to this policy?

A total of 4,040 responses to the consultation were received.

Analysis and report

NHS England commissioned TONIC, a UK-based public consultation and social research specialist organisation (www.tonic.org.uk), to undertake an independent analysis of the consultation responses and to produce a written report of the findings. TONIC analysts read each response and used thematic analysis to make a record of all views. These views and overarching themes are summarised and described in the report that follows.

Respondent demographics

Respondents were asked in which capacity they were participating and whether they were responding on behalf of an organisation. The three largest respondent groups were members of the public (25%), patients (22%), and parents (22%), with a further six groups comprising the remainder.

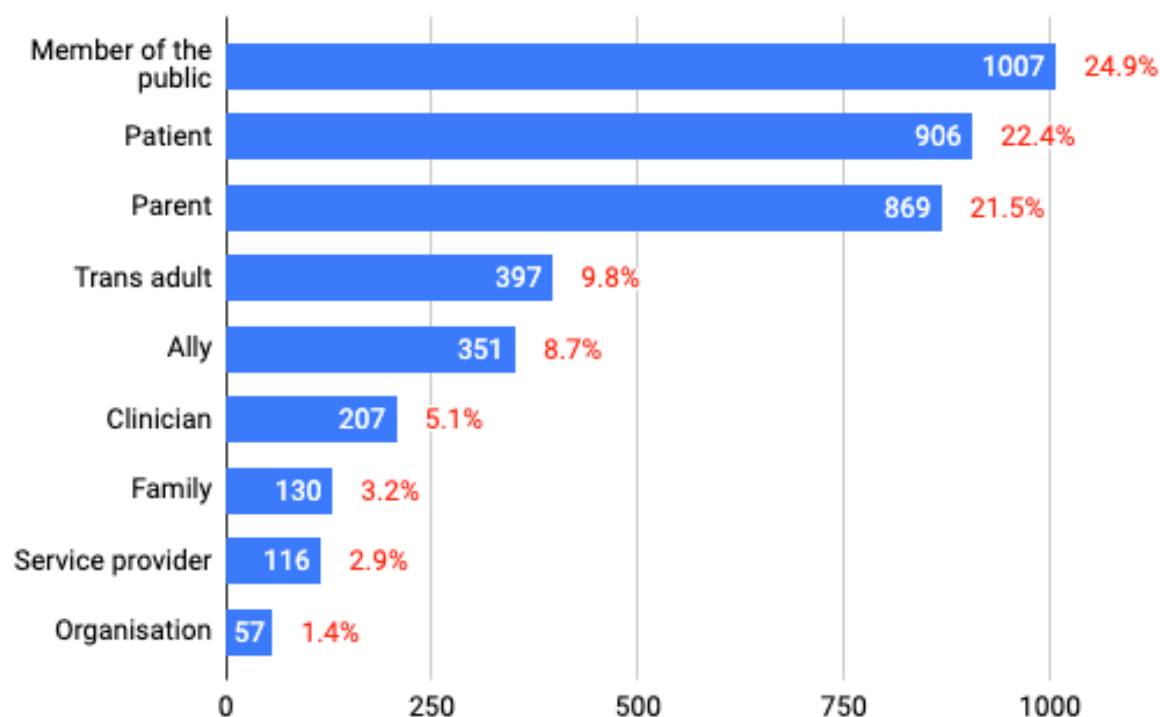


Figure 1. Consultation respondents by respondent type

Summary of quantitative responses

The majority of respondents felt that additional evidence needed to be taken into account when developing the proposals (72%) and believed that the equality and health inequalities impact assessment had failed to reflect the potential impact that might arise as a result of the proposed changes (82%).

Among the different respondent types there was some variation in answers to the two quantitative questions, with parents and clinicians slightly more likely to state agreement overall than other groups (though this was still a minority) and friends/allies and transgender adults much more likely to disagree – particularly in response to question 2.

In addition, those responding on behalf of an organisation were more likely to disagree with question 2 (regarding the EHIA) than any other group, with only 7% saying they agreed. The following table sets out the answers to each of the two quantitative questions by respondent type:

Table 1. Quantitative question results by respondent type

Respondent type	Q1. Has all of the relevant evidence been taken into account?		Q2. Does the equality and health inequality impact assessment reflect the potential impact that might arise as a result of the proposed changes?	
	Yes	No	Yes	No
Member of the public	23.7%	76.3%	14.8%	85.2%
Patient	28.7%	71.3%	16.8%	83.2%
Parent	35.7%	64.3%	28.7%	71.3%
Trans adult	21.5%	78.5%	9.8%	90.2%
Friend / Ally	23.4%	76.6%	9.1%	90.9%
Clinician	36.7%	63.3%	29.0%	71.0%
Family	34.6%	65.4%	20.0%	80.0%
Service provider	28.4%	71.6%	19.8%	80.2%
Organisation	27.3%	72.7%	7.3%	92.7%
Total	28%	72%	18%	82%

Summary of qualitative responses

Differences in viewpoint

Broadly speaking, responses to the three open-ended questions corresponded with one of two viewpoints:

- **Group A:** Those who believed that puberty suppressing hormones have been shown to be harmless and beneficial, and that they should be made available to gender dysphoric children and young people without the requirement to enrol in a research trial. This group made up the majority of responses to the consultation, with 3,492.
- **Group B:** Those who believed that that evidence tended to show that PSH are harmful, unproved, unsuitable or unnecessary, and that therefore, PSH should not be made available to gender dysphoric young people. There were 180 responses from this group.

As a result, it was decided that the most logical way to present respondents' input was in accordance with these overarching viewpoints.

A third category was created for themes and suggestions that were either common to both groups, or from respondents who it was not possible to locate within one of the two groups based on their responses. This contained 368 responses.

In the report that follows, therefore, "Group A respondents" refers to those who stated support for the use of PSH for children and young people (and for gender-affirming care in general), while "Group B respondents" refers to those who were opposed to the use of PSH for children and young people (and who tended to feel that NHS England should direct its avenues of treatment and research towards psychological and psychosocial factors).

Question 1 – Has all the relevant evidence been taken into account?

Over 2,600 respondents provided free text responses explaining why they felt that additional evidence needed to be considered in the proposals.

The most common points put forward by Group A respondents were:

- The experiences, views and outcomes of transgender people, patients, and their families had not been considered as evidence, as well as the views of experts in the field.
- The evidential review had not included enough studies and had strict inclusion criteria, which may have excluded other relevant, good quality studies.
- Studies that rated PSH treatment positively had been ignored, possibly due to unfair bias.
- There has not been an evidential review of the outcomes of transgender children and young people who had been denied PSH.
- Guidance and advice from leading international bodies, such as WPATH, had been ignored.
- Evidence that PSH are used safely for other conditions (such as precocious puberty and prostate cancer) was not included.
- The statement that children and young people treated with PSH do not show a statistically significant difference in mental health and psychosocial functioning misunderstands the intended results of PSH treatment (i.e., that it is the first step in an ongoing treatment plan).

In comparison, Group B respondents tended to express the view that other evidence could have been considered which showed PSH are harmful and unnecessary, stating that:

- The review does not highlight harm caused by PSH or the importance of going through puberty.
- It omits animal studies that have concluded that PSH cause harm.
- The review omits experiential evidence from detransitioners.
- The review fails to use evidence that studies the causes of gender dysphoria.
- There was no review of evidence addressing psychological treatments of gender dysphoria.

Respondents from both groups suggested that the evidence included in the review was unfit for purpose due to small sample sizes, a lack of randomised control trials, and poor quality or inconclusive results. Many respondents from both groups also submitted details of a number of articles, references, papers and studies they felt should have been included in the evidence review.

Question 2 – Does the equality and health inequality impact assessment (EHIA) reflect the potential impact that might arise as a result of the proposed changes?

Just under 2,900 respondents provided details about why they felt the EHIA did not fully reflect the potential impact that may arise due to the proposed changes.

The most commonly raised themes presented by Group A respondents were:

- That the EHIA fails to sufficiently assess the potentially serious impact on the physical, emotional and mental health of transgender children who will be denied PSH treatment.
- That the policy discriminates against transgender children because other NHS treatments do not require a patient to be part of a research protocol and PSH will still be available to non-transgender children and young people.
- The protected characteristic of gender reassignment was insufficiently addressed, with the EHIA misinterpreting the breadth of the characteristic and being at odds with the Equality Act 2010.
- The EHIA fails to acknowledge that children and young people from low-income homes who are unable to afford private care will be discriminated against.
- The EHIA fails to address the future impact of transgender children and young people having developed secondary sexual characteristics.
- It fails to recognise the impact and risk of driving patients to access treatment from unregulated sources.
- It fails to properly address the protected characteristic of disability, given that the policy will disproportionately impact on autistic and neurodivergent children and young people.
- The EHIA does not address the potential impact on those who are currently receiving PSH treatment but who may be forced to stop.
- The EHIA does not address transgender children and young people whose families are unsupportive.

The main themes presented by Group B respondents were:

- The protected characteristic of sexual orientation is insufficiently addressed, with data on sexual orientation of patients lacking and the impact of homophobia not being recognised.
- Regarding the protected characteristic of age, the EHIA does not adequately reflect the potential impact on those considered too young and inexperienced to fully understand their situation and make such important decisions.
- There was no assessment on how others are impacted by 'gender ideology', giving examples such as family members or young females who may have to share intimate physical spaces with biological males.

Respondents from both groups also felt it was not possible for the EHIA to adequately assess potential impact due the scarcity and low quality of the evidence and research that informed it.

Question 3 – Are there any changes or additions you think need to be made to this policy?

3,333 respondents provided views and suggestions regarding changes and additions they believed needed to be made to the policy, as well as other ideas not directly related to the question, but rather to treatment and the subject of gender dysphoria as a whole.

The most commonly raised themes presented by Group A respondents were:

- The requirement to participate in a research trial in order to receive treatment is coercive and unethical.
- The policy does not address the risk of harm it may cause to transgender youth, in terms of driving them to unregulated sources, negative impact on mental wellbeing, and necessitating more drastic medical treatment in order to transition when older.
- Primarily the policy should be informed by the lived experiences of transgender people, or at least by experts in the field. The low number consulted for the draft policy was insufficient.
- There are no definitions for late/early onset gender dysphoria, so these terms should not be included in the policy.
- The research trial is poorly designed and unethical, will lack a randomised control group, and will not provide the desired evidence or results.

- Transgender healthcare should be made available everywhere, not only in specialist clinics.
- The potential harms of being forced to endure an undesired puberty have not been discussed.

Group B respondents said:

- The policy should go further and state that PSH are never made available to gender dysphoric children and young people due to the harms they cause, as well as potential currently unknown future consequences.
- For consistency and clarity, the definition of 'gender incongruence' should align with the ICD-11 definition and the diagnostic framework of the interim service specification.
- The research trial is unethical and violates the 1964 Declaration of Helsinki by not ensuring participants are not harmed in the pursuit of medical knowledge.
- The policy should make support available for detransitioners and children and young people who have been harmed by PSH or other aspects of gender transition.
- There should be no exceptional cases outside of the trial, due to the potential for opening up loopholes.
- The policy should show that aspects of our rapidly changing culture (such as social media, social contagion, and parental influence) have influenced gender dysphoric children and young people.
- The minimum age for the research trial should be 16.
- The research should be classified as a Clinical Trial of an Investigational Medicinal Product (CTIMP) and comply with specific requirements.
- Patients and their families should be educated on the risks of using PSH and should hear the experiences of detransitioners.
- The language used in the policy must be scientifically and medically accurate and not influenced by 'gender ideology'.

In addition, the following viewpoints were put forward by members of both groups:

- More research is required before any final decisions can be made.
- The policy should be closely reviewed and updated following new research outcomes.
- There is not enough available information regarding the specifics of the research trial on which to base an informed opinion.

Campaign and duplicate responses

A number of respondents' submissions were identified as potential 'campaign' or duplicate responses – that is, a set of consultation responses prepared by an organisation and then either copied and pasted in full or reworded and edited slightly before being submitted by others as additional consultation responses. Four such responses were identified and are summarised in the following table along with the number of respondents who submitted these in full (verbatim) or in slightly edited (similar).

Table 2. Campaign responses

Response organisation	Verbatim	Similar	Total
Mermaids	53	77	130
Transgender Trend	27	13	40
What the Trans?!	23	11	34
UCLH Endocrine	6	0	6

Response numbers for the first three organisations are presented as approximate averages across all questions, as not all respondents used the campaign responses for each of their answers – that is, some respondents submitted a combination of exactly copied responses, slightly reworded or edited responses, and responses consisting of their own words.

As there was no basis reason to consider that these campaign and duplicate responses did not accurately represent the views and ideas of the respondents who submitted them, they have been considered in the same way as unique individual responses and included in the question and theme totals as such.

Section 2. Methodology

Disclaimer

This report conveys the key messages arising from the analysis of the consultation responses. The report utilises the language and terminology used by respondents in order to provide the most reliable summary of these responses. We have illustrated some themes identified through the analysis with direct quotations from the response data. It intentionally does not provide challenge or critique on the key messages for example checking of links to published data as part of responses provided. Therefore, the views expressed, and language used in the report, do not represent the views of TONIC nor NHS England but are a faithful analysis of the response data.

Methodology

Analysis methodology

NHS England commissioned TONIC, an independent social research organisation specialising in public consultations, to produce a summary of responses to the consultation. To achieve this, TONIC conducted a quantitative analysis for all responses to the closed (multiple choice) questions and used thematic analysis (Braun and Clarke, 2006) to summarise the written responses to the open (free text) questions.

Thematic analysis is a widely used method for identifying, analysing, and reporting patterns within text data. TONIC chose this approach as it provides a way to summarise themes in a large body of data, highlights similarities and differences across the dataset, and can generate unanticipated insights. The process facilitates the organization and description of the dataset in detail and interprets various aspects of the research topic. Our analysts followed the six steps involved in this process using Quirkos and Excel software to support the process:

1. A detailed reading of the data to become familiar with the text
2. Initial codes are manually ascribed to the data, and organised into meaningful groups relevant to consultation questions
3. Codes conceptually related to one another are grouped together and identified as themes
4. Themes are reviewed to determine whether they are internally coherent and distinct from each other

5. Defining and naming themes and subthemes, which provide structure to the analysis
6. Writing up results, providing a narrative summary of the relationship between codes, subthemes and themes, including examples from the data to illustrate the essence of each theme

Identifying sources of evidence

Respondents in some instances included references to articles, publications and web-based material to support their arguments or to signpost to sources of evidence. All references of this type were collated in order to provide a comprehensive list to NHS England as part of the analysis process. This list is provided in Annex B of this report.

Quality Assurance

TONIC is committed to developing and maintaining the highest standards of quality assurance at every stage of our research. Our quality assurance mechanisms for this project were:

- **Sampling:** Our senior analyst conducts regular testing of a representative sample of coded responses by all analysts to ensure quality and accuracy of the analysis completed.
- **Inter-rater reliability:** All analysts receive training and guidance for each analysis project. Results for different analysts analysing similar data sets were compared to guarantee reliability and consistency between different analysts and across the various questions.
- **Controlling for bias:** We put in place a number of research processes to control for and minimise bias in our analysis:
 - All our analysts are qualified to at least degree level in a relevant discipline and receive regular training in thematic analysis, research methods and unconscious bias
 - Our analysis process follows the six steps of thematic analysis, ensuring in our coding practice that each individual response is fully considered in isolation
 - Multiple analysts conducted the analysis, and we conducted tests for inter-rater reliability
 - The draft code frames produced are peer reviewed as part of our quality assurance process, which includes controlling for bias through reflexive practice and group discussions
 - Quoted excerpts from responses used in the report were selected by the lead analyst as being typical examples of the responses containing the specific theme

These processes combine to create a systematic approach to enhance the reliability and validity of the findings and to ensure that there is no bias in our findings. This is underpinned by the fact that TONIC are an independent research organisation with guiding principles from the British Psychological Society's Code of Ethics and Conduct (2021)¹.

Data cleansing

Prior to analysis taking place, the data cleansing process was carried out in Microsoft Excel in the following ways:

1. **Duplicates:** The raw dataset was assessed for duplicate responses by: examining all IP addresses from which a consultation response was submitted; checking qualitative answers for identically worded responses; and analysing the demographic information provided for similarities and differences.
2. **Blank submissions:** Entirely blank submissions were removed – i.e., responses from those who provided only demographic information but failed to answer any questions. In total, there were five such empty responses.
3. **Blank answers:** Content-free qualitative answers which consisted entirely of comments such as “I don’t know”, “no comment”, “n/a”, “yes”/“no” or contained simply hyphens or dots were removed and are not included in the figures illustrating response rates.

Notes on reading the consultation analysis report

Participation in the consultation was on a self-selecting basis. The findings in the report, therefore, carry the unavoidable risk of self-selection bias and are, therefore, not generalisable.

In some cases, analysis of a respondent’s data resulted in multiple references to the same theme. This was particularly the case for longer responses. The report generally refers to the number of respondents that replied to a question or that had at least one reference belonging to a given theme within a question. The qualitative analysis drew on all the references coded to a theme.

Results for each of the consultation questions have been reported in line with the consultation headings used in the materials available to respondents.

The order of themes has been determined by the proportion of respondents coded under each coding theme. Themes with the highest number of respondents have been reported first, with all the others in descending order.

It is worth noting that the quantitative results presented in this report should be considered in the context of the accompanying qualitative response themes and explanations, and that the figures, in and of themselves, do not provide a complete picture.

It is worth noting that the number of respondents raising a theme does not necessarily correspond to the importance of the issues being put forward. Response frequencies, therefore, are included solely as a guide, not as an indication of priority.

Unless displayed otherwise percentage figures are rounded to the nearest whole number and therefore may not always add up to 100%.

Section 3. Detailed Summary of Responses

Question 1 – Has all the relevant evidence been taken into account?

This question was answered by 4,036 respondents, with 1,144 (28%) answering “yes” and 2,892 (72%) answering “no”.

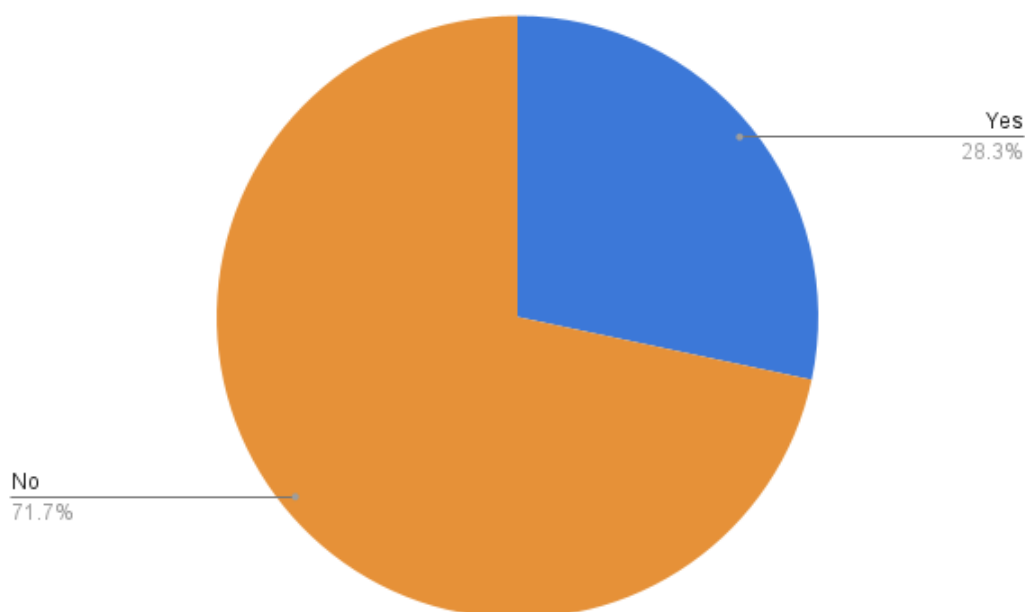


Figure 2. Has all the relevant evidence been considered?

There was some variation among the different respondent groups, with parents, clinicians and family members of transgender children and young people being slightly more likely to agree that all the relevant evidence had been considered, while trans adults, friends/allies, and members of the public were slightly less likely than other groups to agree.

All groups, however, were significantly more likely to state that additional evidence should be considered, as follows:

Table 3. Has all the relevant evidence been considered? by respondent type

Respondent type	Yes	No	Total
Member of the public	238 (23.7%)	768 (76.3%)	1,006
Patient	260 (28.7%)	646 (71.3%)	906
Parent	310 (35.7%)	559 (64.3%)	869
Trans adult	85 (21.5%)	311 (78.5%)	396
Ally	82 (23.4%)	269 (76.6%)	351
Clinician	76 (36.7%)	131 (63.3%)	207
Family	45 (34.6%)	85 (65.4%)	130
Service provider	33 (28.4%)	83 (71.6%)	116
Organisation	15 (27.3%)	40 (72.7%)	55
Total	1,144 (28.3%)	2,892 (71.7%)	4,036

Qualitative (free text) responses

In total, 2,634 respondents provided further detail for why they felt not all the relevant evidence was considered. A large number of references, papers, articles, studies, and other sources were put forward, as well as suggestions and thoughts regarding the evidence NICE had considered, the use of PSH, issues affecting gender dysphoria in general, and the proposed interim clinical policy.

In this question and across all questions the total number of respondents recorded in the theme tables sums to less than the total number who provided an answer. This is due to:

- a) not all respondents being identified as belonging to either of the two groups; and
- b) not all respondents providing answers that addressed the question.

Where possible, responses which addressed issues unrelated to a particular question have been included in the summary of themes for question 3 (“Any other changes or additions?”).

Summary of themes raised by Group A respondents (n=2,183)

Group A respondents said...	Number
Insufficient studies were included, and many other studies should have been considered	1,065
The primary evidence should come from transgender people and experts in the field	825
Studies which rated PSH positively were ignored	620
There was no evidential review of transgender children who had been denied PSH	486
The review ignores evidence that PSH are used safely for other conditions	312
Evidence and advice from leading international bodies such as WPATH was ignored	310
International studies and studies not in the English language weren't included	112
The review misunderstands the intended purpose or impact of PSH treatment	67
The review lacks data from those treated at Tavistock	31

Insufficient studies were included, and many other studies should have been considered

Almost half of Group A respondents stated that the evidence review should have included significantly more than nine studies and that there existed many good quality studies which should have been included. Some felt that the exclusion criteria were too strict and that any requirement for a qualifying study to include a randomised control group was both inappropriate and unethical for the subject of research into the use of puberty suppressing hormones by children and young people, given that some participants would have been “randomly denied” the treatment they desired.

Some Group A respondents also believed that good quality qualifying studies had been excluded on the grounds that psychological support had also been provided, resulting in PSH treatment not being a single variable. This was considered inappropriate as psychological support would always be deemed essential for this cohort and that it would be unethical to remove it.

Some respondents felt that good quality and informative post-factum studies on transgender adults who had used PSH as children had been unfairly disregarded, as were meta analyses and literature reviews which had shown PSH to be safe and to provide highly positive results for gender dysphoric children and young people. For some Group A respondents this was perceived as representing an aspect of unfair bias which, for them, appeared to be politically motivated and expressly designed to deny PSH treatment to transgender youth – particularly as PSH had been made available for the

treatment of other conditions such as precocious puberty and prostate cancer, yet studies which showed PSH safe for these treatments had not been included.

The primary evidence should come from transgender people and experts in the field

Many Group A respondents believed that decisions about puberty blockers should be informed predominantly by the experiences and perspectives of transgender individuals and experts in the field, expressing concern that the voices of those who have first-hand experience of PSH have not been adequately included in the decision-making process. Respondents believed that social studies and qualitative data should be used to balance the clinical and quantitative evidence predominant in the current review.

Respondents suggested it would be particularly important to engage with transgender adults who had been denied access to puberty blockers during their youth, as this would offer valuable insight into the impact of such denial.

In addition, University College London Hospital Endocrine suggested the use of Patient Reported Outcome Measures (PROMs) to track and measure treatment satisfaction from the patients' perspective.

There was no evidential review of transgender children who had been denied PSH

Group A respondents highlighted the lack of research regarding gender dysphoric children and young people who had been denied treatment with PSH (or otherwise been unable to utilise PSH) and who had therefore entered and gone through an undesired puberty. Respondents believed such studies either did or would show deterioration of mental health, increase in suicide rates, and decrease in overall quality of life – particularly in the cases of biological males who experience more pronounced and difficult to reverse physical changes at puberty.

Respondents suggested that in order to better understand the effects and results of PSH treatment future evidence reviews should include comprehensive comparison studies between those who use PSH and those who opt instead to undergo purely psychological treatment.

International bodies and studies, and non-English language studies were ignored

Many Group A respondents believed that NHS England and the NICE evidence review should have drawn upon work already undertaken by international bodies such as WPATH, ASIAPATH, EPATH, PATHA, and USPATH, highlighting their exclusion and apparent dismissal of international guidelines such as WPATH's Standards of Care (SOC 8) as limiting the insight into effective and safe treatment pathways for transgender youth.

Respondents also felt that the exclusion of non-English language studies omitted important data and raised concerns about the comprehensiveness of the evidence review.

The review misunderstands the intended purpose or impact of PSH treatment

Some Group A respondents felt that the statement "Overall, there was no statistically significant difference in gender incongruence, mental health, body image, and psychosocial functioning in children and adolescents treated with PSH" failed to grasp the intended results of PSH treatment, arguing that PSH treatment is designed as the initial step in a comprehensive treatment plan rather than as a standalone solution.

Respondents emphasised the view that PSH treatment's primary purpose is not to immediately improve mental health or alleviate gender dysphoria in childhood but rather to pause physical changes associated with puberty and allow individuals more time to make informed decisions about further interventions, such as cross-sex hormones and surgeries. Benefits, therefore, may not be immediately visible during childhood but will manifest in adulthood – hence the sentiment that focusing on immediate results and excluding data from transgender adults omits valuable information that may reveal longer-term advantages.

In addition, Group A respondents felt that the review was overly focused on the use of PSH in isolation failing to consider its role as part of a holistic treatment plan. It was argued that the effectiveness of PSH should be evaluated within the context of broader care, including psychological therapy and hormone replacement therapy (HRT).

The review lacks data from those treated at Tavistock

Some Group A respondents highlighted the lack of data from the children and young people who had received PSH treatment through the Gender Identity Development Service (GIDS) at Tavistock. Respondents believed that data from GIDS would contain valuable insights and real-world patient experiences over a long period that should have been integral to a comprehensive evaluation of puberty suppression treatments. The omission of this data was suspected as being due to negative bias and raised doubts regarding the completeness and representativeness of the evidence considered in shaping clinical policies. Respondents again emphasised the importance of inclusive, unbiased evidence reviews that encompassed a diverse range of sources, including those who have been directly involved in the provision of gender-affirming care in England.

Summary of themes raised by Group B respondents (n=123)

Group B respondents said...	Number
The review should include more studies demonstrating harm caused by PSH	114
The review omits animal studies	64
The evidence included is influenced by pro-transgender beliefs	54
The review omits experiential evidence from detransitioners	43
It lacks evidence that researches the causes of gender dysphoria	37
The review lacks evidence that gender dysphoria exists	24
The review does not show the long-term harm of gender-affirming treatments	14
It does not include studies that show that PSH treatment leads to medical transition	10
The review does not include research on the psychological treatment of gender dysphoria	7

The review does not highlight the harms caused by PSH or the importance of puberty

Like Group A respondents, Group B respondents also believed that the evidence review lacked sufficient studies and was not as comprehensive and thorough as it should have been. Group B respondents pointed particularly to what they felt was the review's lack of emphasis on the potential harm caused by PSH and the importance for young people to undergo a natural puberty. Respondents believed that the evidence failed to sufficiently highlight the detrimental effects of

PSH, such as concerns regarding bone density, infertility, and genitourinary issues. The focus on potential harms was underscored by references to warnings issued by the U.S. Food and Drug Administration (FDA) regarding blindness and brain swelling linked to PSH, as well as policy changes in Finland and Sweden.

Group B respondents suggested a number of studies they felt should have been included in the evidence review, including studies of PSH treatment on animals which they believed showed harmful effects such as: reduction in long-term spatial memory; and negative impacts on learning and the development of social behaviours.

The evidence included is influenced by pro-transgender beliefs

Some Group B respondents felt that NICE's evidence review and the interim clinical policy both showed signs of having been influenced by transgender beliefs. Phrases such as 'sex assigned at birth' were felt to be unscientific and raised questions of impartiality, while study authors such as Johanna Olson-Kennedy (considered for the evidence review, but not included) were described as being 'known activists' within the field.

Some respondents also stated that there was no evidence provided to support the existence of gender dysphoria, and that NHS England should 'not be allowed to build clinical practice upon an unevicenced belief that some children are born in the wrong body'.

The review omits experiential evidence from detransitioners

Some Group B respondents felt that the review lacked evidence about and from detransitioners – in particular, regret rates, side effects, and real life experiences of the potential harms of delaying puberty and the claimed reversibility of PSH. Detransitioners' experiences were seen as an essential component in providing a fully rounded picture of the impact and consequences of PSH treatment, as well as many other aspects of gender dysphoria in children and young people.

The review lacks evidence that researches the causes of gender dysphoria

Some Group B respondents felt that the evidence review lacked explorations and analyses of the potential causes of gender dysphoria beyond affirming gender identity, pointing to a deficiency in

research addressing comorbidities such as autism and ADHD, as well as insufficient investigation into social contagion, the role of sexuality (noting that gender dysphoric children often eventually identify as gay), the impact of trauma, the influence of schools, and the dynamics within families and friend circles.

Respondents cited specific studies to support these claims (listed above), as well as historical data from GIDS that was believed to evidence the prevalence of same-sex attraction among gender dysphoric individuals, and the psychological and social challenges in children referred for gender-related concerns.

Also deemed to be lacking were expert witness statements emphasising the effectiveness of talking therapy as a treatment for gender dysphoria.

The review does not show the long-term harm of gender-affirming treatments

Respondents believed that the NICE evidence review omitted evidence on the long-term harms associated with the gender-affirming treatment approach, contending that substantial physical, cognitive, and psychological risks have been shown to outweigh the potential benefits. They believed that the origins of gender dysphoria were psychological and, as such, should not be subject to physical treatment with puberty blockers. It was stated that gender dysphoria is the only disorder where treatment involves affirming a mental health condition, likening this approach to affirming a person with anorexia's body dysmorphia.

It does not include studies that show that PSH treatment leads to medical transition

Some Group B respondents suggested that the review should have included studies that showed that PSH treatment had led to patients progressing to medical transition in cases when they may otherwise have naturally grown out of gender dysphoria. The use of PSH, it was believed, sometimes mistakenly solidified a young person's desire to progress on the path to transition and made it more difficult for them to acknowledge or recognise that their feelings may have changed.

The review does not include research on the psychological treatment of gender dysphoria

Some Group B respondents felt that the evidence review should have included studies and research supporting psychological treatment as the preferred option in cases of gender dysphoria over PSH treatment. They believed that good quality studies had shown that psychological evaluation and counselling resulted in high levels of desistance and resolution of gender dysphoria, and that extensive literature reviews overwhelmingly pointed to underlying psychological and social issues as the causes of gender dysphoria in children and young people.

Summary of themes raised by all respondents

All respondents said...	Number
Other specific evidence should have been included in the review	846
Recent evidence has not been included	36

Recent evidence has not been included

Respondents from both groups proposed that there had been significant new evidence and areas of study undertaken in 2023, and that these papers and analyses should be included in the evidence review given that they are the most up to date and that such important decisions would require the best quality evidence.

Respondents also stated that all new evidence should be monitored as it emerged and incorporated into an ever-evolving clinical policy, until such a time as the position on PSH and other aspects of gender dysphoria treatment was ascertained with certainty.

Suggestions of further references for review

Many respondents suggested papers, studies, articles, websites, books, blogs, videos and news reports that they felt should have been considered in the evidence review. Some of these were studies included in the NICE review and some had been listed by NICE as having been considered but ruled out of inclusion in their review. Many suggestions were opinion pieces and other articles which drew on secondary evidence. However, a total of 73 references, papers, analyses and surveys were suggested. These have been listed and summarised in Appendix B.

Question 2 – Does the equality and health inequality impact assessment (EHIA) reflect the potential impact that may arise as a result of the proposed changes?

This question was answered by 4,035 respondents, with 734 (18%) answering “yes” and 3,001 (82%) answering “no”.

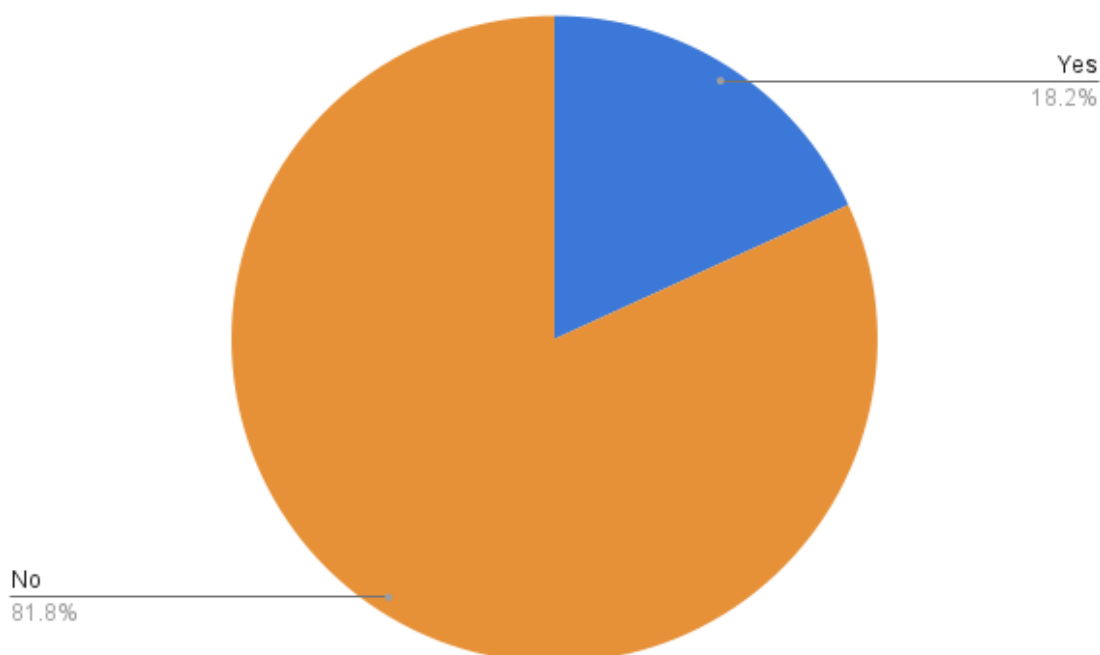


Figure 3. Does the EHIA reflect the potential impact that may arise as a result of the proposed changes?

As in responses to question 1, there was some variation among the different respondent groups, with parents and clinicians somewhat more likely to answer “yes” than other groups, and trans adults and friends/allies significantly more likely to answer “no”. In addition, those who responded on behalf of an organisation were much more likely to answer “no” than “yes”, with almost 93% believing that the EHIA did not accurately or sufficiently reflect the impact of the proposed changes.

As before, all respondent types were significantly more likely to disagree that the EHIA reflected the impact of the proposed changes, with at least 71% of each group answering “no”.

Table 4. Does the EHIA reflect the potential impact that may arise as a result of the proposed changes? by respondent type

Respondent type	Yes	No	Total
Member of the public	149 (14.8%)	856 (85.2%)	1,005
Patient	152 (16.8%)	754 (83.2%)	906
Parent	249 (28.7%)	620 (71.3%)	869
Trans adult	39 (9.8%)	357 (90.2%)	396
Ally	32 (9.1%)	319 (90.9%)	351
Clinician	60 (29%)	147 (71%)	207
Family	26 (20%)	104 (80%)	130
Service provider	23 (19.8%)	93 (80.2%)	116
Organisation	4 (7.3%)	51 (92.7%)	55
Total	734 (18.2%)	3301 (81.8%)	4,035

Qualitative (free text) responses

In total, 2,897 respondents provided qualitative responses to this question, with a large majority (2,444 – 84%) from Group A respondents. Perhaps due to the technical nature of the EHIA, however, a large number of respondents did not directly address the issue of the equality and health inequality impact assessment. The adjusted number of qualitative responses which provided themes and suggestions for this question, therefore, was 2,457.

As above, where possible these responses have been included in the summary of themes for question 3 (“Any other changes or additions?”).

Summary of themes raised by Group A respondents (n=2,136)

Group A respondents said...	Number
The EHIA fails to assess the impact on transgender children denied PSH treatment	1641
The requirement for taking part in a research trial is discriminatory	1189
The protected characteristic of gender reassignment is insufficiently addressed	242
It does not acknowledge the income on children from low income homes	175
It fails to address the future impact on transgender children forced to go through puberty	119
The EHIA fails to recognise the impact on patients who will access unregulated sources	119

The EHIA fails to recognise that it denies bodily autonomy	117
Autistic and neurodivergent children and young people are discriminated against	113
The terms 'early onset' and 'late onset' have not been defined	52
The protected characteristic of age is insufficiently addressed	27
There is no mention of how transgender youth of colour will be protected	22
The impact on those currently receiving PSH treatment is not mentioned	20
The EHIA does not mention those from unsupportive families	13
There is no consideration for children and young people with low health literacy	7
The section on sex does not address the additional difficulties faced by biological males	3
The protected characteristic of religion does not address potential negative impacts	2
Homeless transgender youth are not addressed in the assessment	2
There is no plan in place regarding the protected characteristic of pregnancy	1

The EHIA fails to assess the impact on transgender children denied PSH treatment

A large number of Group A respondents believed that the EHIA had failed to assess the potentially significant impact on the physical, emotional and mental health of transgender children who would be denied PSH treatment. They stated that there was no acknowledgement that the proposals of the interim clinical policy would directly affect patients who were already struggling with their mental health and who were at significant risk of self-harm and suicide, and that these changes would likely exacerbate the negative aspects of this situation. These unrecognised negative impacts were seen as having far-reaching consequences which would affect children and young people into their adulthood, potentially requiring treatments decades in the future.

It was noted by some that the equality and health inequality impact assessment had recognised the potential for harm by acknowledging that potential distress may be experienced and that there may be an increase in risk taking behaviour, however the level of acknowledgement was seen as insufficient, understating the seriousness of the issues, and appearing to mitigate that the risks of such harm was acceptable.

Group A respondents also objected to the repeated statement that the potential impact on transgender children and young people would be alleviated by other modes of specialist clinical support being made available. They argued that the assessment should explicitly address the potential negative impact of withdrawing access to PSH treatment, regardless of alternative

treatments, and felt that the reference to other treatments ignored ongoing issues in being able to access healthcare in a timely fashion. Wait lists for such services were predicted to be inordinately lengthy, with backlogs meaning that some young patients would be unable to receive treatment for several years, and beyond the period that they needed it most.

Respondents also noted that there was no mention of the potential impact on those who were currently receiving PSH treatment but who may be forced to stop treatment due to the proposed changes in the clinical policy.

The requirement for taking part in a research trial is discriminatory

Some Group A respondents felt that the requirement to take part in a research trial in order to receive PSH treatment was discriminatory. It was pointed out that other medical treatments do not require participation in a research study and that this policy suggested a form of segregated healthcare that denied bodily autonomy and disproportionately impacted transgender youth. The EHIA's statement that the policy wasn't discriminatory was deemed to be erroneous given the inequality between the healthcare treatment of transgender and non-transgender individuals.

The perception of discrimination was seen as problematic not only in the immediate sense and with regard to the interim clinical policy, but it was also feared that it would contribute to a negative societal impact by sending a message of exclusion that would increase the level of demonisation of transgender people, potentially fuelled by media portrayal.

As above, these impacts and risks were seen as having gone unrecognised in the EHIA.

The terms 'early onset' and 'late onset' have not been defined

Some Group A respondents felt that the statement that "The definition of 'early onset' and 'late onset' will be developed by the clinical study team in due course" meant it was not possible to provide a valid response to questions involving these currently undefined terms. Furthermore, it was believed that there could be no clinical or scientific basis for these terms, and that there could be many independent factors and personal characteristics that would confuse and confound efforts to arrive at such definitions, which did not appear to have been considered. Any definitions arrived at, therefore, would run the risk of being either arbitrary or ill-informed, and would have the potential

consequence of negatively impacting any children and young people who may be denied treatment on the basis of these “arbitrary and unscientific” definitions.

The impact on those currently receiving PSH treatment is not mentioned

Some respondents felt that the EHIA lacked information on how the interim clinical policy would affect patients who are currently being treated with PSH but who may be forced to cease treatment, either due to the policy or due to the individual decisions of their supervising clinicians. They said there was no mention of the potential physical and mental impacts of stopping gonadotropin-releasing hormone agonist (GnHRa) prescriptions suddenly and without a treatment plan based on HRT.

Respondents also wondered whether endocrinologists and other supervising clinicians would receive training in preparation for such scenarios, feeling that any plans for how to deal with these circumstances should already have been put in place and therefore would have featured in the EHIA.

Protected Characteristics

Certain protected characteristic groups were highlighted by Group A respondents as being insufficiently or incorrectly represented and reflected in the EHIA, as follows:

Gender reassignment

Regarding the protected characteristic of gender reassignment, Group A respondents felt that the EHIA misinterpreted the breadth of the characteristic and discriminated against those who had socially transitioned but not medically transitioned. Respondents referenced the Equality Act 2010, which states that “a person has the protected characteristic of gender reassignment if the person is proposing to undergo, is undergoing, or has undergone a process (or part of a process) for the purpose of reassigning the person’s sex by changing physiological or other attributes of sex”. There is, therefore, no requirement for medical treatment to have taken place in order to be covered by the protected characteristic gender reassignment.

Disability

Regarding the protected characteristic of disability, Group A respondents felt that the EHIA had failed to recognise the potential for the interim clinical policy to discriminate against neurodivergent children and young people by unfairly excluding them from research and PSH treatment. There was no case, it was stated, to conclude that those with diagnoses and conditions such as autism, ADHD, learning difficulties, or low IQ would be unable to recognise their own gender identity and make their own decisions, or that they should be denied PSH treatment and steered into purely psychological treatments on the basis that they experienced psychological conditions in conjunction with their sense of gender dysphoria.

Age

Regarding the protected characteristic of age, some respondents felt that the EHIA had not sufficiently reflected on how the interim clinical policy could potentially discriminate against young people by negating their individual autonomy and making the assumption that they aren't capable of knowing themselves or their own minds.

Issues of age were also linked to questions regarding the definitions of 'early onset' and 'late onset' gender dysphoria, and how some transgender youth may be discriminated against because their ages would be unreasonably linked to these so-called "arbitrary definitions" and that they would therefore be impacted by missing out on potentially beneficial treatment.

Some respondents also felt that the EHIA should have mentioned Gillick competency, and how this is viewed and applied by NHS England with regard to transgender children and young people.

Race, pregnancy and religion

Respondents pointed out that there were no mentions of how the protected characteristics of race, pregnancy and religion would be impacted by the interim clinical policy, nor any mentions of plans for how these groups would be recognised and supported.

Sex

Regarding the protected characteristic of sex, it was pointed out that the EHIA had not sufficiently reflected on how the denial of PSH treatment would differently and negatively impact biological males going through undesired puberty (for example, in the development of an Adam's apple, or the deepening of the voice).

Other groups

Some Group A respondents mentioned other vulnerable groups who they felt had been insufficiently reflected in the equality and health inequality impact assessment, but who they believed would be adversely and significantly impacted by the proposed changes to the interim clinical policy. These were:

- Children and young people from low income homes who would be discriminated against because they would not be able to utilise treatments from private clinics available to those from more affluent families.
- Children and young people who, having been denied PSH treatment through NHS England (or being unwilling to enrol in a research trial), would choose to access treatments from unregulated sources, with potentially negative consequences.
- Those who either lived with unsupportive families or who lived outside the family home, who would find it more difficult to access services than those who had the support and encouragement of their adult carers.
- Those who, for a variety of reasons, could be considered to have low health literacy
- Homeless transgender youth, who were seen as particularly vulnerable, but who weren't addressed in the impact assessment.

Summary of themes raised by Group B respondents (n=138)

Group B respondents said...	Number
The protected characteristic of sexual orientation was insufficiently addressed	110
The EHIA doesn't adequately reflect the potential negative impact on children	102
The EHIA does not assess the negative impact of using PSH	86
Those who consider themselves gender reassigned shouldn't be guaranteed treatment	74
Studies on transgender youth in care should be completed before treatment is provided	66
The EHIA fails to reflect the impact of those with autism moving towards transition	65
The language used in the EHIA shows signs of pro-transgender beliefs	30
The disproportionate negative impact on girls is not adequately addressed	27
There is no assessment on how others are impacted by gender affirming treatments	21

Protected Characteristics

Most themes raised by Group B respondents addressed specific protected characteristic groups and how they felt the impact and/or reflection of these groups hadn't been adequately addressed in the equality and health inequality impact assessment.

Sexual Orientation

Most Group B respondents who provided an answer to this question believed that the EHIA had inadequately addressed the impact on the protected characteristic of sexual orientation, considering it a troubling and unusual oversight that NHS England had declared that it did not hold sexual orientation data for transgender children and young people. For many Group B respondents some of the primary causes of gender dysphoria among young people were likely to be internalised homophobic impulses and/or mistaken ideas regarding the expression of human sexuality and gender. Group B respondents tended to believe that a large proportion of gender dysphoric young people would become healthy homosexual or bisexual adults if allowed to develop and evolve naturally, and that there was a significant body of evidence that supported this.

Age

In opposition to Group A respondents who promoted the application of Gillick competency and individual autonomy, Group B respondents tended to feel that children under the age of 16 were too young to be able to make such important decisions, and that decisions around PSH treatment and gender transition should be made by parents, carers, and experienced clinicians. If PSH were made available to children under 16, therefore, it was believed that the protected characteristic of age would be negatively impacted and that this should have been more directly addressed in the EHIA.

Gender reassignment

Some Group B respondents believed that the EHIA had inaccurately described the protected characteristic of gender reassignment, stating that, in terms of statute law, expressing a wish to change sex did not qualify a child under 16 for the protected characteristic.

Some Group B respondents also stated that the Equality Act 2010 does not define gender reassignment in relation to children in its main body, but rather only in explanatory notes, and that the Gender Recognition Act 2005 requires those who undergo gender reassignment to be 18 at minimum, and to have lived as the desired gender for two years.

Some respondents highlighted the claim made in the EHIA that “the majority of individuals who will be impacted by the proposals are likely to have the protected characteristic of gender reassignment” as incompatible with statute law, as outlined above, and as unsupported and unevidenced by objective data.

Some also stated that even if the protected characteristic of gender reassignment was correctly applied this should only ensure that such individuals weren’t unfairly discriminated against, and not that they should be guaranteed treatment.

Young people in care

Some Group B respondents believed that the EHIA had not sufficiently addressed the evidence and research regarding gender dysphoric children and young people who had lived in care, which could lead to a disproportionately negative impact for this group. Respondents believed that the numbers

of transgender youth who lived in care situations was unusually high, and that this therefore suggested that the causes of their gender dysphoria and desire to transition was more likely to be linked to issues such as trauma, unhealthy parental influences, unstable home situations, and other psychological and mental health conditions. More research and study for this group was therefore urged before final decisions are reached.

Disability

Some Group B respondents believed that the protected characteristic of disability had not been fully reflected, particularly with regard to autistic children and young people who, it was felt, were more susceptible than non-autistic children to arrive at the mistaken conclusion that they were transgender and to fix their intentions on transition. According to Group B respondents, such comorbidities and the increased difficulties and risks faced by neurodivergent children and young people should have been more adequately addressed.

Some respondents believed that it is impossible for an autistic person to have a gender identity and, therefore, that they could not experience gender dysphoria. That the EHIA and, apparently, the medical profession has ignored this was seen as discriminatory and in urgent need of review.

Sex

Some respondents felt that the negative impact on young females had not been adequately addressed, and that though the EHIA recognised that more females than males are presenting with gender dysphoria there was not enough acknowledgement of the disparity and potential inequality.

Some respondents also believed that further research into discovering why more females than males currently presented as gender dysphoric was urgently required in order to ensure that young females weren't advanced into treatment for the wrong reasons.

The EHIA does not assess the negative impact of using PSH

Some Group B respondents stated that the EHIA doesn't fully assess or take into account the negative impact and iatrogenic harm of children and young people using puberty suppressing hormones. As mentioned earlier, these perceived and proposed harms included issues with sexual

development and fertility, bone density and physique, and neuro- and psychosocial development, while undergoing puberty was seen as a natural process necessary for physical and mental development.

It was also stated that the EHIA did not acknowledge the increased likelihood of patients who use PSH progressing to a full medical transition route in comparison with those who don't use PSH. Because full medical transition was also seen by Group B respondents as negatively impacting on this cohort, though perhaps in the long-term and in the distant future, it was felt that this should have also been mentioned in the EHIA as a potential negative impact.

The language used in the EHIA shows signs of pro-transgender beliefs

As mentioned in answers to Question 1 with regard to some of the language used in the interim clinical policy, some Group B respondents also highlighted what they considered unscientific and ideological terms such as “sex assigned at birth”.

There is no assessment on how others are impacted by gender affirming treatments

Some Group B respondents felt that the EHIA should have reflected on how the interim clinical policy may impact on others – namely, peers, the family of patients, the taxpayer who would ultimately be funding such services, and both young and adult females who may find themselves forced to share previously female-only spaces with biological males, impacting on issues of safety, vulnerability, and comfort.

Summary of themes raised by all respondents

All respondents said...	Number
The potential impact cannot be reflected because the evidence used is inadequate	267
The document and question are unclear	30

The potential impact cannot be reflected because the evidence used is inadequate

A significant number of respondents from both groups believed that it was not possible to accurately comment on the EHIA due to the assessment itself based on inadequate evidence and research.

Respondents argued that the current state of research, particularly regarding the long-term effects of gender-affirming care (including PSH treatment) was insufficient and scientifically questionable.

While some respondents asserted that it was unethical to subject children to drugs without a clear understanding of their safety and long-term effects, others argued that it was unethical to withdraw potentially life-saving treatment without conclusive proof that it causes harm. Likewise, in some cases the same studies were used by both groups to support their points of view (the Dutch Protocol, for example), highlighting that the evidence is inconclusive on which both the interim clinical policy and the equality and health inequality impact assessment were based. Both groups raised concerns regarding the limitations of existing research, selectivity issues, and short follow-up duration.

Ultimately, respondents felt there was a need for a much more robust and comprehensive research base grounded in rigorous scientific evidence before they could deliver an informed and constructive evaluation of the proposed changes and their potential impact.

The document and question are unclear

Some respondents from both groups felt that the EHIA and the question on it lacked clarity and comprehensibility, leaving them frustrated and confused, and unable to provide a meaningful response. Some respondents highlighted the absence of an introduction or explanation of what they were reading and what was expected of them, and it was also stated that they were given scant details regarding the research plan.

Criticism was extended to the use of what was seen as management consultancy language, described as difficult to decipher. The question's wording was challenged as poorly formulated, with some respondents suggesting intentional obfuscation.

Some respondents also felt, given its technical nature and the difficulties in providing meaningful and useful insight, that it was an inappropriate question to pose to the general public, and a waste of taxpayers' money.

Question 3 – Are there any changes or additions you think need to be made to this policy?

In total, 3,333 respondents provided qualitative responses to this question, with 2,724 (81.7%) coming from Group A respondents and 172 (5.2%) from Group B.

As before, not all responses provided information addressing the interim clinical policy, hence the total of the number of respondents adds up to less than the total who provided an answer to the question.

Summary of themes raised by Group A respondents (n=2,613)

Group A respondents said...	Number
The policy should be scrapped and rewritten	1248
The requirement to participate in a research trial is unethical	715
The policy does not address certain risks of harm it may cause to transgender youth	707
The policy should be informed by the lived experiences of transgender people	507
Late/early onset dysphoria are undefined so should not be included in the policy	288
The research trial is poorly designed and will not provide the desired results	120
Transgender healthcare should be available everywhere, not only in specialist clinics	95
The risks of not using PSH should be discussed in the policy	44
The policy should remove harmful terminology that pathologises transgender people	25
It should provide evidence that psychological approaches alone are an effective treatment	12
The requirement for those currently using PSH to desist is misguided	5

The policy should be scrapped and rewritten

Almost half of Group A respondents who submitted an answer to this question opined that the proposed interim clinical policy should not be subject to adjustments but should be stopped, scrapped, and rewritten anew. It was again stated that the underpinning evidence review from NICE was unsoundly selective and unscientific, omitting crucial studies that could have informed a comprehensive understanding of the most successful and beneficial ways to treat gender dysphoric

children and young people, and that these flaws would lead to the arbitrary denial of necessary and harm-preventing treatment for participants.

As in answers to Question 1, Group A respondents put forward what they considered good quality studies that they felt had been unjustly excluded from NICE's review – particularly those excluded due to their inclusion of psychological support, viewed as an inherently essential aspect of treatment that should not be treated as a separate variable.

The proposed interim clinical policy was also criticised for not treating intervention and non-intervention on an equal footing and appearing to wrongly prefer non-intervention and the cessation of services for a hormone treatment that is easily accessible to non-transgender children, such as those with precocious puberty. This was seen as revealing an inherently biased stance, potentially motivated by anti-transgender political considerations, that has resulted in a selective and incomplete evidence review, an underinformed policy-making process, and an inadequate and potentially harmful outcome for gender dysphoric children and young people.

The requirement to participate in a research trial in order to receive treatment is unethical

Many Group A respondents felt that the policy should be changed to remove the insistence on enrolment in a research trial as a prerequisite for accessing treatment. This insistence was seen as coercive and as going against the principles of voluntary participation. In addition, the introduction of the novel diagnostic categories 'early onset gender dysphoria' and 'late onset gender dysphoria' were again noted as being undefined by both NHS England and NICE, while also deviating from established international best practices outlined in WPATH's standards of care. The absence of a solid evidence base for these diagnoses was said to make their use to restrict access to care ethically questionable.

Along with concerns expressed for the treatment and wellbeing of transgender children and young people due to these coercive measures, some Group A respondents felt that the need to conform with a certain diagnosis would lead some gender dysphoric individuals to provide inaccurate information in order to access the care they desired. This was seen as jeopardising the integrity of the research study and undermining the trust between patients and clinicians, impacting the overall quality of care.

Group A respondents believed that participation in the research trial should be free from all aspects of coercion and should align with established ethical principles of voluntary consent, and that it should be open to all who wished to take part, not just those who satisfied certain currently undefined criteria.

The policy does not address certain risks of harm it may cause to transgender youth

A large number of Group A respondents felt that the proposed restriction on providing PSH treatment had failed to adequately address the potential harm it may inflict on transgender youth. Some felt that the requirement for participation in a research trial might lead gender dysphoric children and young people to resort to extreme measures, such as attempting to stunt their own puberty through diet and lifestyle changes, or that they would be much more likely to seek access to unregulated hormone blockers, raising issues for the safety and well-being of those seeking such alternatives.

The lack of access to puberty-suppressing hormones during the research study was identified as a significant risk factor. Some respondents highlighted the potential negative impact on mental well-being, emphasising that participants might be forced into more drastic medical treatments when they are older. The concept of life-saving drugs is invoked, underlining the vital nature of puberty blockers in the journey of transgender youth.

One respondent drew attention to the interconnection with the policy on gender-affirming hormones, emphasising the need for a comprehensive understanding of how these policies align. Ceasing the use of puberty blockers before removing them as a prerequisite for gender-affirming hormones is deemed detrimental, particularly for individuals for whom physical transition is a primary objective.

Concerns were also raised about the terms 'late onset' and 'early onset' dysphoria, pointing out their undefined nature and the potential assumption of concepts like rapid onset gender dysphoria without sufficient evidence review. The perceived coerciveness of the policy, tying access to puberty blockers to research participation, is considered a critical ethical concern, especially when there is no alternative access to these crucial treatments.

In summary, the policy's failure to address the risk of harm to transgender youth, both in terms of driving them towards unregulated sources and negatively impacting mental well-being, is a significant concern. The potential for more drastic medical treatments later in life and the interconnectedness with the policy on gender-affirming hormones underscore the necessity for a more comprehensive and nuanced approach to safeguard the health and well-being of transgender youth.

The policy should be informed by the lived experiences of transgender people and experts

Many Group A respondents pointed to what appeared to be a lack of input from an engagement with transgender people, highlighting that the draft policy had gathered evidence and information from only "six individuals or carers/family members", with no indication of how many of these six individuals were transgender adults or gender dysphoric children and young people. Respondents said that this number should have been much higher, and that it should have included insights and real life opinions from both those who had used PSH and those who hadn't, as well as those who could provide feedback on the long-term outcomes of both. Clearly, it was stated, with such a small number having been consulted there was no real chance that anything approaching a well-rounded picture looking at PSH treatment and gender dysphoria could have been obtained.

Group A respondents also said that, in conjunction with transgender people themselves, the interim clinical policy should have been shaped by experienced experts in the field – but with only 13 unnamed organisations and four anonymous clinicians/academics consulted, with no indication of their level of expertise, qualifications, viewpoints, or ideological position, it was deemed an inadequate and disappointing level of engagement, and a missed opportunity to shape a truly beneficial and well-informed healthcare policy.

Late/early onset dysphoria are undefined so should not be included in the policy

As featured in responses to Question 2, many Group A respondents pointed out that the definitions of 'early onset' and 'late onset' gender dysphoria had not yet been agreed on, therefore they should not be included in the interim clinical policy. Respondents believed that the use of these terms without defined parameters raised questions about their validity and about the potential implications for treatment. Respondents felt that without clear explanations and a thorough

examination of the scientific evidence supporting them there was a risk of these terms assuming a legitimacy that they may not merit.

The research trial is poorly designed and will not provide the desired results

Some Group A respondents criticised the proposed research trial within the interim clinical policy for what they saw as its poor study design, noting the absence of a control group which they believed made it ethically challenging and unlikely to yield the desired evidence or results. Respondents said that a much more robust research protocol should be designed, involving a longitudinal approach and a control group. This requirement, however, was felt to lead to the ethical dilemma of clinicians needing to randomly assign some transgender children to receiving no puberty-blocking treatment, allowing them to undergo natural puberty – a scenario deemed unlikely to gain approval from ethics committees or acceptance among practising gender clinicians. This dilemma seemed to indicate that the implementation of randomised control trials was impossible, therefore the suggestion was put forward that a cohort study following transgender young people treated with puberty blockers might be a more viable option.

Transgender healthcare should be available everywhere, not only in specialist clinics

Some Group A respondents believed there was a need to desegregate transgender healthcare and make it universally accessible rather than confined to specialist gender clinics. Respondents believed that the current approach led to prolonged waiting times and placed undue burdens on transgender individuals. Reference was also made to historical ambiguity regarding whether endocrinologists or psychiatrists would oversee gender dysphoric patients, and the suggestion was made to abandon a model that requires strict psychological testing and monitoring in order to access PSH and other hormonal and medical treatments.

Advocates for desegregating transgender healthcare contended that it would save on costs, significantly reduce waiting times, and prevent the abuses of power and invasive medical practices previously observed in certain specialist clinics. Some believed that the segregation of healthcare represented a dehumanising approach of NHS England to transgender individuals, stating that treating gender dysphoric children and young people on par with other patients would make a statement that recognised their fundamental right to bodily autonomy and the ability to make decisions about their medical procedures and bodily changes. The disparity in access to hormone

treatments for gender dysphoric individuals compared to other medical interventions was also cited, advocating for a system where competent doctors can monitor treatments their patients have consented to without the need for specialist oversight.

The risks of not using PSH should be discussed in the policy

Some respondents felt that the interim clinical policy should have included evidence, and literature, as well as measures centred around the risks of gender dysphoric young people not being treated with PSH. This suggestion was underpinned by the belief the benefits of taking PSH were well studied and evidenced and that they clearly outweighed any potential risks.

Group A respondents also expressed a need for a more comprehensive consideration of the social context and epidemiological trends related to transgender identities and transgender healthcare, arguing that the unique nature of the treatment's connection to a social issue required clear navigation and recognition within the policy.

There was also criticism of the insufficient explanation of the metrics used to establish how the benefits and risks of PSH treatment had been weighed and measured, and of how the conclusion to limit PSH treatment had been so conclusively arrived at when, to Group A respondents, the benefits of PSH very clearly outweighed the potential risks.

The policy should remove harmful terminology that pathologises transgender people

Some respondents felt that the policy conspicuously avoided the use of terms such as 'transgender' and 'gender dysphoria' in favour of the clinical term 'gender incongruence.' This was interpreted by some as a pathologising of transgenderism and gender diversity, betraying an ideology which suggested transgender existence is an abnormality that requires correction. In the broader societal context, where anti-transgender bigotry is seen as being on the rise, respondents emphasised the importance of language and terminology in shaping the narrative around transgender issues, advocating for a more affirming and inclusive use of language in the policy.

The policy should give evidence that psychological approaches alone are an effective treatment

A small number of Group A respondents highlighted concerns about the perceived lack of good quality evidence supporting the effectiveness of psychological approaches as a standalone treatment in the proposed policy, stressing the need for psychological treatments to be held to the same standard of evidence as those applied to PSH and other gender-affirming interventions.

The requirement for those currently using PSH to desist is misguided

Some Group A respondents believed that the requirement for individuals already receiving PSH treatment privately to discontinue the treatment for baseline testing was misguided and could potentially cause them harm or that they would face challenges when seeking to resume treatment, to the extent that they may not be approved to use them again. This requirement was viewed as being detrimental to both the patient and to the integrity of the research study. Furthermore, it was believed that for young people who had already been using PSH, any baseline reading obtained would not represent their true baseline. Respondents therefore proposed that it would be more effective, efficient and all-round beneficial to have patients provide baseline results from their previous private providers.

Summary of themes raised by Group B respondents (n=162)

Group B respondents said...	Number
The definition of 'gender incongruence' should align with that in the ICD-11	94
The research trial is unethical and violates the 1964 Declaration of Helsinki	90
There should be no exceptional cases outside of the trial	83
Safeguarding policies should be clearly set out and described in full	82
The policy should address how modern culture has influenced gender dysphoric CYP	55
The policy should make support available for detransitioners and CYP harmed by PSH	53
The research trial should be a Clinical Trial of an Investigational Medicinal Product	42
Patients and their families should be educated on the risks of using PSH	39
The language used in the policy should be scientifically and medically accurate	38
The policy should address private or overseas prescribers	23

Research participants must be carefully screened	6
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The definition of ‘gender incongruence’ should align with that in the ICD-11

A significant proportion of Group B respondents who provided an answer to the question believed there was a greater opportunity for consistency and clarity in the definition of ‘gender incongruence’ within the interim clinical policy, suggesting that the definition should align with the diagnostic framework of the interim service specification and adopt the ICD-11 definition. Respondents argued that the current policy’s definition, which refers to ‘gender dysphoria/incongruence’ as a condition related to discomfort or distress due to a misalignment between gender identity and natal sex is inappropriate and inaccurate.

The research trial is unethical and violates the 1964 Declaration of Helsinki

Some Group B respondents felt that the ethical aspects of the proposed research trial outlined in the interim clinical policy violated the 1964 Declaration of Helsinki by not adequately ensuring the safety and well-being of participants in the pursuit and development of medical knowledge and treatments, pointing to the Declaration’s 8th principle which emphasises that the primary purpose of medical research should not take precedence over the rights and interests of individual research subjects. Group B respondents therefore requested an explanation of how the trial aligns with ethical principles to safeguard the rights and interests of the participating individuals and a clear rationale for using children as research subjects beyond advancing medical knowledge.

There should be no exceptional cases outside of the research trial

Some Group B respondents raised concerns regarding the possibility of ‘exceptional cases’ being able to receive treatment, as stated in the interim clinical policy. This was felt to open the door for subjective interpretation and potential loopholes, leading to individuals or families perceiving and/or presenting their circumstances as exceptional and thus seeking access to PSH.

Group B respondents believed that statistics indicate that around 80% of children outgrow gender dysphoria if not affirmed, but that individuals using PSH often proceed to cross-sex hormones. This led some to fear that some children who might naturally outgrow their condition could be classified

as an exceptional case which, in turn, could lead to a lifelong dependence on medical interventions and the potential induction of hormone imbalances.

Respondents therefore suggested that there should be no provision for exceptional cases outside of the research trial setting.

The concern extends to the idea that the concept of 'exceptional cases' could be misused or misinterpreted.

Safeguarding policies should be clearly set out and described in full

Group B respondents highlighted the imperative for clear and comprehensive safeguarding policies within the interim clinical policy, especially considering the profound and irreversible nature of some of the decisions involved, such as those concerning the body, sexual functionality, and fertility. In addition, there were calls for careful examination of parental consent, urging restrictions on the rights of parents, with a particular concern raised about the potential for Munchausen by Proxy.

Respondents suggested clear and exhaustive safeguarding policies that recognised the vulnerabilities of children and young people who have limited life experience and understanding of their sex and sexuality in making life-altering choices.

The policy should address how modern culture has influenced the rise of gender dysphoria

Group B respondents felt that the interim clinical policy should acknowledge and address the influences of modern culture, including the impact of social media, social contagion, and parental influence on gender dysphoric children and young people. These influences were seen to form a critical aspect of the discourse and that the policy should include an exploration of how cultural shifts had contributed to the recent rise in the numbers of gender dysphoric children. The argument was centred on the premise that it is increasingly uncommon for a child to arrive at the clinic without some degree of influence or affirmation related to gender dysphoria. Any policy, therefore, should include and use evidence that has scrutinised and accounted for these cultural dynamics when addressing the needs of gender dysphoric children and young people.

The policy should make support available for detransitioners and those harmed by PSH

Some Group B respondents believed that the interim clinical policy should include comprehensive support mechanisms for detransitioners and individuals who have experienced harm from puberty blockers, implementing a framework that acknowledges and addresses the potential harms and challenges faced by individuals in their journey. Respondents believed that currently there was a gap in available services and a dearth of assistance for detransitioners, and that the interim clinical policy had an opportunity to address this and provide a more comprehensive and supportive healthcare approach for those who had been harmed by PSH and gender transition.

In addition, respondents proposed that gender services be augmented by resources within Child and Adolescent Mental Health Services (CAMHS) to provide comprehensive psychiatric assessment and psychosocial support. The concern expressed was that, by exclusively viewing issues through a “gender lens” some children may be deprived of broader psychiatric evaluation and mainstream CAMHS assistance.

The research trial should be a Clinical Trial of an Investigational Medicinal Product

Some Group B respondents stated that the proposed research trial should be classified as a Clinical Trial of an Investigational Medicinal Product (CTIMP) as it pertains to studies evaluating the safety or efficacy of a drug and involves specific requirements and regulations to ensure the welfare of participants. This viewpoint aligned with an overarching demand for stringent regulatory measures designed to ensure that the trial meets the required ethical and safety standards and to safeguard the well-being of the participants, particularly considering the unique vulnerabilities associated with children involved in clinical trials.

Patients and their families should be educated on the risks of using PSH

Group B respondents believed that the interim clinical policy should include comprehensive education for patients and their families regarding the realities of using PSH. Respondents called for transparency and honesty in conveying the risks, side effects, and nuanced experiences associated with PSH, encouraging NHS England to move beyond an idealised notion of the effects a child might anticipate from PSH treatment and ensuring that both parents and children are fully informed about the likely outcomes, differentiating between reversible and irreversible effects.

In addition, respondents felt that the interim clinical policy should incorporate the experiences of detransitioners, believing that acknowledging and sharing detransition narratives would provide valuable insights into the potential challenges and consequences of gender transition interventions. Such a holistic approach to education was seen as furnishing patients and their families with a well-rounded understanding, fostering informed decision-making and mitigating the potential for misconceptions or unrealistic expectations.

The language used in the policy should be scientifically and medically accurate

As noted in responses to other questions, some Group B respondents felt that some of the language used in the interim clinical policy showed signs of ideological influence and was not strictly biologically or medically accurate. The policy should therefore be updated to ensure that all terms used reflect accepted scientific consensus.

The policy should address private or overseas prescribers

Some Group B respondents felt that the interim clinical policy should contain an explicit protocol or legislative framework to address the actions of private or overseas providers who prescribe PSH in order to monitor and potentially restrict access to PSH from sources outside the defined healthcare system. Such legislation or protocols would serve as a deterrent and regulatory mechanism to curtail the prescription of PSH by private or overseas entities, ensuring the safety, ethical practice, and comprehensive oversight of PSH prescriptions within England.

Research participants must be carefully screened

A small number of Group B respondents proposed that the interim clinical policy should include a protocol that sets out a meticulous screening process in order to protect vulnerable research participants. Specifically, it was suggested that individuals with low IQ or those identified as mentally ill or neurodivergent should be screened out and excluded from participating in the research trial. In addition, there were calls to assess the home situations of prospective participants as a crucial component of the screening process. This approach aimed to ensure ethical and responsible research practices, acknowledging the need for enhanced protection for certain subgroups within the participant pool.

Summary of themes raised by all respondents

All respondents said...	Number
The policy should be closely reviewed and updated following new research outcomes	46
The general public should not be consulted on medical matters	29
The policy should greater clarity	20

The policy should be closely reviewed and updated following new research outcomes

Respondents from both groups suggested that it was imperative that thorough reviews and subsequent updates should be made to the interim clinical policy in light of emerging research. It was suggested that a vigilant monitoring of new research outcomes should be a catalyst for potential adjustments to the existing policy framework, recognising the evolving landscape of medical knowledge and its implications for the well-being of individuals. Respondents believed that policies governing such critical interventions as those involving gender dysphoric children and young people should remain open to refinement based on the most current and robust research findings. This perspective would align with a commitment to the highest standards of patient care and safety.

The general public should not be consulted on medical matters

Some respondents felt that matters pertaining to medical treatment, particularly for marginalised groups, should not be subjected to public consultation, positing that decisions concerning healthcare should be exclusively informed by the insights of medical and scientific professionals, rooted in rigorous research and expertise, and not by a public who may not possess the necessary depth of knowledge to meaningfully contribute to discussions about nuanced and scientifically intricate medical treatments.

Some respondents also noted that, in times marked by politically charged moral debates, the notion that the wider public might influence decisions related to the healthcare of a marginalised group was a situation which should be approached with apprehension – if at all.

The policy should give greater clarity

Respondents from both groups felt that the interim clinical policy should be made clearer and more precise, with specific points of vagueness highlighted in the feedback. Concerns were raised about the lack of explicit details on whether psychological treatment would be inherently gender affirming, while the ambiguity surrounding the criteria for determining 'exceptional circumstances' within the context of the research trial was also flagged as an issue. Also noted was a lack of elucidation on how decisions will be made concerning individuals already undergoing treatment through alternative providers or routes.

Respondents advocated for a more transparent policy that avoids ambiguity and ensures that individuals, including those already in the treatment process, clearly understand what the policy means for them, how it will affect them, and where they stand.

Appendix A. List of organisations that responded

A total of 57 respondents stated that they were responding on behalf of an organisation, representing 54 different organisations (i.e., some organisations were represented by more than one respondent, noted in brackets).

Alder Hey Children's NHS Foundation Trust
Authentic Equity Alliance
Bayswater Support Group
Bodyswap
Brighton and Hove LGBT Switchboard
British Psychological Society
Christian Concern
Clinical Advisory Network on Sex and Gender (CAN-SG)
Elaine Hutton, Lesbian Rights Alliance, Bristol Branch
EPATH
Exeter Trans And Non-binary Cafe
Gender Plus
General Medical Council
Genspect (2)
GIDS Experts by Experience
Glasgow University's LGBTQ+ Students Association
Great Ormond Street Hospital NHS Foundation Trust
Guy's and St. Thomas' NHS trust
Harem of No One
Labour Women's Declaration working group
LGB Alliance
LGBT Foundation
Lovewise
Playground Games
Proud2Be (2)
Q:alliance
Royal Manchester Children's Hospital
Sex Matters

South London and Maudsley NHS Trust
South Shropshire Women's Rights Network
Space Youth Project
Spectra
Stonewall
The Christian Institute
The Gay Men's Network
The Gender Identity Research & Education Society
The Gender Services programme team at Evelina
The Kite Trust
The Lesbian Rights Alliance
The Pharmacists' Defence Association Union's LGBT+ Network
The Rainbow Project
The South Hub
Thoughtful Therapists
Trans Learning Partnership
Trans Masculine Birmingham
TransActual (2)
Transgender Equality Network Ireland
Transgender Europe
Transilience CIC
Transwidows.com
University College London Hospitals Endocrine
University College London Hospitals NHS Foundation Trust
University of Worcester LGBTQ+ Student Network
Women's Rights Network

Appendix B. List of references provided

Question 1

Many respondents suggested papers, studies, articles, websites, books, blogs, videos and news reports that they felt should have been considered in the evidence review. Some of these were studies included in the NICE review, and some had been listed by NICE as having been considered but ruled out of inclusion in their review. Many suggestions were opinion pieces and other articles which drew on secondary evidence. However, a total of 73 references, papers, analyses and surveys were suggested. These have been listed and summarised in the following table:

Title – Authors - Url	Summary
<p>The Myth of “Reliable Research” in Paediatric Gender Medicine: A critical evaluation of the Dutch Studies—and research that has followed</p> <p>Abbruzzese, E., Levine, S.B., Mason, J.W. (2023)</p> <p>https://www.tandfonline.com/doi/full/10.1080/0092623X.2022.2150346</p>	<p>Commentary on the methodologically biased nature of two Dutch studies (de Vries, et al., 2011 - included in NICE review) and (de Vries, et al. 2014) which have formed the foundation of practice of youth gender transition. Methodological biases include (1) subject selection assured that only the most successful cases were included in the results; (2) the finding that “resolution of gender dysphoria” was due to the reversal of the questionnaire employed; (3) concomitant psychotherapy made it impossible to separate the effects of this intervention from those of hormones and surgery.</p>
<p>“I am afraid for those kids who might find death preferable”: Parental figures’ reactions and coping strategies to bans on gender affirming care for transgender and gender diverse youth.</p> <p>Abreu, R. L., Sostre, J. P., Gonzalez, K. A., Lockett, G. M., Matsuno, E. (2022)</p> <p>https://psycnet.apa.org/record/2021-67997-001?doi=1</p>	<p>Survey of 138 parental figures of TGD youth sharing their reactions and coping strategies as a result of current anti-transgender laws and bills. Thematic analysis revealed four themes depicting participants’ cognitive reactions, including: (a) violation of rights, (b) increased stigma, (c) decreased quality of healthcare, and (d) support for the child’s journey. Also, three themes emerged about participants’ emotional reactions, including: (a) fear and anxiety, (b) anger, and (c) relief. Additionally, participants shared narratives about how they are coping with these anti-transgender laws and bills, including: (a) activism and advocacy, (b) educating others, (c) seeking support from communities/groups, and (d) relocation and avoidance. Recommendations for practitioners such as debunking incorrect information about trans healthcare when working with parental figures are discussed.</p>
<p>Longitudinal impact of gender-affirming endocrine intervention on the mental</p>	<p>Examining the associations of endocrine intervention (puberty suppression and/or cross sex hormone therapy) with depression and</p>

<p>health and well-being of transgender youths: preliminary results</p> <p>Achille, C., Taggart, T., Eaton, N.R., et al. (2020)</p> <p>https://doi.org/10.1186/s13633-020-00078-2</p>	<p>quality of life scores over time in transgender youths. Over a 5-year period, 50 participants completed 3 waves of questionnaires on depression and quality of life. Mean depression scores and suicidal ideation decreased over time while mean quality of life scores improved over time. When controlling for psychiatric medications and engagement in counselling, regression analysis suggested improvement with endocrine intervention. Observed in male-female and female-male but stronger effects in the former.</p>
<p>Animal studies which demonstrate PSH negatively impacts learning, the development of social behaviours and responses to stress</p> <p>Anacker, C., Sydnor, E., Chen, BK., LaGamma, CC., McGowan, JC., Mastrodonato, A., Hunsberger, H.C., Shores, R., Dixon, RS., McEwen, BS., Byne, W., Meyer-Bahlburg, HFL., Bockting, W., Ehrhardt, AA., Denny, C.A. (2020)</p> <p>https://pubmed.ncbi.nlm.nih.gov/32919399/</p>	<p>Study investigating the effects of GnRH on reproductive function, social and affective behaviour, cognition, and brain activity in mice. Six-week-old male and female mice were injected daily with saline or GnRH for 6 weeks and behaviour was tested in various ways. They found that the GnRH increased hyperlocomotion, changed social preference, and increased neuroendocrine stress responses in male mice, while the same treatment increased hyponeophagia (measure of anxiety) and despair-like behaviour in females. The study concluded that GnRH agonist treatment after puberty onset exerts sex-specific effects on social- and affective behaviour, stress regulation, and neural activity in mice.</p>
<p>Association between pre-treatment IQ and educational achievement after gender-affirming treatment including puberty suppression in transgender adolescents</p> <p>Arnoldussen, M., Hooijman, E.C., Kreukels, B.P., de Vries, A.L. (2022)</p> <p>https://doi.org/10.1177/13591045221091652</p>	<p>Study examining the effects of gender affirming treatment (including puberty suppression) on cognitive development. IQ was measured in 72 adolescents (45 trans boys, 27 trans girls) before treatment, educational achievement was evaluated after gender-affirming treatment. Results show a positive association between IQ and educational achievement and appears to be similar to the general population.</p>
<p>Self-Perception of Transgender Adolescents After Gender-Affirming Treatment: A Follow-Up Study into Young Adulthood</p>	<p>Study examining the effect that gender affirming treatment (including puberty suppressors) has on psychological development, including the development of positive self-perception. The total study sample consisted of 70 adolescents. Self-perception was assessed (using a self-</p>

<p>Arnoldussen, M., van der Miesen, A.I.R., Elzinga, W.S., Alberse, A.E., Popma, A., Steensma, T.D., de Vries, A.L.C. (2022)</p> <p>https://doi.org/10.1089/lgbt.2020.0494</p>	<p>report measure) before the start of gender-affirming hormone treatment and at least 6 months after gender-affirming surgeries. It was found that the domains of physical appearance and global self-worth improved significantly over the course of treatment. No domain worsened significantly over the course of treatment. The domains of scholastic competence, social acceptance, athletic competence, and close friendship remained stable. This suggests that irreversible gender-affirming treatment for adolescents could contribute to the development of a more positive self-perception.</p>
<p>Randomized-controlled trials are methodologically inappropriate in adolescent transgender healthcare</p> <p>Ashley, F., Tordoff, D.M. Olson-Kennedy, J., Restar, A.J. (2023)</p> <p>https://www.tandfonline.com/doi/full/10.1080/26895269.2023.2218357</p>	<p>A critical review investigating whether Randomised Control Trials (RCTs) are methodologically appropriate for studying the association between adolescent gender-affirming care and mental health. It was found that RCTs are inappropriate since these interventions have physiologically evident effects and are highly desired by participants, giving rise to concerns over adherence, drop-out, response bias, and generalizability. Complementary and well-designed observational studies can instead be used to ground reliable recommendations for clinical practice and policymaking in adolescent trans healthcare, without the need for RCTs.</p>
<p>The Effect of Puberty Blockers on the Accrual of Bone Mass</p> <p>Biggs, M. (2021)</p> <p>https://www.degruyter.com/document/doi/10.1515/jpem-2021-0180/html</p>	<p>Issues with the study by Joseph, et al. (2019) on bone density results from the Tavistock clinic - used in the NICE review. Since the release of data, Biggs' reanalysis concluded that after two years on GnRHa, the bone mass density Z-scores for a significant minority of the children had declined to a level that should trigger clinical concern, such low bone density is found in only 0.13% of the population. He posits that the 2019 study omitted data and comes to a complacent conclusion</p>
<p>The Dutch Protocol for Juvenile Transsexuals: Origins and Evidence.</p> <p>Biggs, M. (2022)</p> <p>https://pubmed.ncbi.nlm.nih.gov/36120756/</p>	<p>A history review of the Dutch Protocol which proposed puberty suppression as an intervention for "juvenile transsexuals," this consequently became the international standard for treating gender dysphoria. The main evidence for this practice came from a longitudinal study of 70 Dutch adolescents who had undergone puberty suppression followed by cross-sex hormones and surgery. Their outcomes shortly after surgery appeared mostly positive: an improved psychological function and reduced gender dysphoria. However, these findings rested on a small number of observations (much fewer than 70) and incomparable measures of gender dysphoria. A replication study found no such improvement in gender</p>

	dysphoria or psychological functioning. The paper also evaluates the side effects of puberty suppression, including negative effects on cognitive and emotional development and on sexual functioning.
<p>“Deconstructing the Feminine Essence Narrative”</p> <p>Blanchard, R. (2008)</p> <p>https://www.researchgate.net/publication/5420507_Deconstructing_the_Feminine_Essence_Narrative</p>	<p>Commentary and analysis of the feminine essence theory, and comparison with other theories of male-to-female transsexualism.</p>
<p>Transgender Girls Grow Tall: Adult Height Is Unaffected by GnRH Analogue and Estradiol Treatment</p> <p>Boogers, L.J., Wiepjes, C.M., Klink, D.T., Hellinga, I., van Trotsenburg, A.S.P., den Heijer, M., Hannema, S.E. (2022)</p> <p>https://academic.oup.com/jcem/article/107/9/e3805/6603101</p>	<p>Retrospective cohort study of 161 transgender girls (biological males) treated with GnRHa and estradiol, high growth-reductive doses of estradiol, or ethinyl estradiol. Growth velocity and bone maturation was found to decelerate while receiving gonadotropin-releasing hormone analogues (GnRH) but to accelerate during gender-affirming hormone therapy (GAHT). Adult height was found to be lower than predicted at the start of GnRHa treatment (-1.5cm) and lower still after high-dose ethinyl estradiol treatment (-3.0cm).</p>
<p>Trajectories of Adolescents Treated with Gonadotropin-Releasing Hormone Analogues for Gender Dysphoria</p> <p>Brik, T., Vrouwenraets, L., de Vries, M., Hannema, S. (2020)</p> <p>https://link.springer.com/article/10.1007/s10508-020-01660-8</p>	<p>Retrospective study documenting trajectories after the initiation of GnRHa in 143 adolescents, as well as exploring the reasons for extended use and discontinuation of GnRHa. After a median duration of 0.8 years on GnRHa, 125 (87%) started gender-affirming hormones (GAH) and 9 (6%) discontinued GnRHa, 5 (3.5%) of whom no longer wished gender-affirming treatment. Due to the observational character of the study, however, it was stated that it was not possible to say if GnRHa treatment itself influenced the outcome.</p>
<p>Puberty suppression in a gender-dysphoric adolescent: a 22-year follow-up.</p> <p>Cohen-Kettenis, P., Schagen, S., Steensma, T., de Vries, A., de Waal, H.D.-v. (2011)</p>	<p>A case report on a 22-year follow-up of a female-to-male transsexual, treated with GnRH analogs at 13 years of age and considered eligible for androgen treatment at age 17, and who had gender reassignment surgery at 20 and 22 years of age. At follow-up, he indicated no regrets about his treatment. He was functioning well psychologically, intellectually, and socially; however, he experienced some feelings of sadness about choices he had made in a long-lasting intimate</p>

<p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3114100/</p>	<p>relationship. There were no clinical signs of a negative impact on brain development. He was physically in good health, and metabolic and endocrine parameters were within reference ranges. Bone mineral density was within the normal range for both sexes. His final height was short as compared to Dutch males; however, his body proportions were within normal range. This first report on long-term effects of puberty suppression suggests that negative side effects are limited and that it can be a useful additional tool in the diagnosis and treatment of gender dysphoric adolescents.</p>
<p>Cognitive, Emotional, and Psychosocial Functioning of Girls Treated with Pharmacological Puberty Blockage for Idiopathic Central Precocious Puberty</p> <p>Hayes, P. (2017)</p> <p>https://doi.org/10.3389/fpsyg.2017.00044</p> <p>4</p>	<p>A commentary on Wojniusz, S., et al.'s (2016) study exploring differences in cognitive function, behaviour, emotional reactivity, and psychosocial problems between 15 GnRHa treated precocious puberty girls and 15 age-matched controls. They reported that both groups showed very similar scores with regard to cognitive performance,</p> <p>However, Hayes believes this may be overly optimistic. These statements minimise the fairly substantial difference found in IQ scores and may also overemphasise its lack of statistical significance, as given the small number of participants in the study statistical significance has a high threshold. The statements should be qualified to indicate that the research has, in fact, reinforced concerns over the impact of GnRHAs on cognitive performance in children.</p>
<p>Conclusions Not So NICE: A Critical Analysis of the NICE Evidence review of puberty blockers for children and adolescents with gender dysphoria</p> <p>Eckert, A.J. (2021)</p> <p>https://sciencebasedmedicine.org/a-critical-look-at-the-nice-review/</p>	<p>A critical review of the studies included in the NICE Evidence review and the omitted studies. Eckert concludes that the totality of evidence shows that gender-affirming treatment with puberty blockers significantly decreases distress, depression, emotional and behavioural problems and suicidality, while improving global functioning, psychological and psychosocial functioning, quality of life, satisfaction and happiness. There are expected decreases in Z-scores, but bone mineral density remains stable on puberty blockers, as does executive function. Adrenal androgen levels change but yield no negative effects at follow-up. Body changes that occur are aligned with the blocked youth's affirmed gender. Obesity is more common in trans youth, but treatment with blockers does not increase cardiovascular risk factors. More studies are needed on the neurodevelopmental impact of blockers, though the effect of blockers on mental health improvement can be neuroprotective. Research studies continue to confirm that</p>

	puberty blockers are safe and effective with minimal complications, and that youth do not discontinue blockers due to side effects.
Effects of Medical Interventions on Gender Dysphoria and Body Image: A Follow-Up Study van de Grift, T.C., Elaut, E., Cerwenka, S.C., Cohen-Kettenis, P.T., De Cuypere, G., Richter-Appelt, H., Kreukels, B.P.C. (2017) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5580378/	A follow-up survey of 201 participants, investigating medical intervention (hormone therapy and surgery) on gender dysphoria (GD). They found that medical care effectively reduced feelings of GD and improved body satisfaction. Hormone therapy decreased overall body dissatisfaction, whereas surgery contributed mostly to genital satisfaction. Analysis of predictors of persisting body dissatisfaction indicated that psychological mechanisms, next to medical interventions, contributed to body satisfaction. The concept of body image may assist clinicians and individuals with GD to develop treatment plans, which optimally improve psychological well-being. Especially, people with more profound and more overall body dissatisfaction could benefit from receiving additional counselling on this subject. Because current data suggest that a complete medical transition cannot dissolve all body dissatisfaction in some, psychotherapy may additionally offer guidance to accept the less than perfect body.
Autism Spectrum Disorder and Gender Dysphoria/Incongruence. A systematic Literature Review and Meta-Analysis Kallitsounaki, A., Williams, D.M. (2022) https://pubmed.ncbi.nlm.nih.gov/35596023/	A literature review and meta-analysis on autism and gender dysphoria. The findings suggest that there is (a) a positive relationship between ASD traits and GD/GI feelings among people from the general population, (b) an increased prevalence of GD/GI in the autistic population, and (c) an increased prevalence of ASD diagnoses and ASD traits in the GD/GI population. Overall, these findings suggest the existence of a link between ASD and GD/GI that warrants the investigation of mechanisms that could explain that link and the intensification of clinical attention to autistic GD/GI individuals.
A reduction in long-term spatial memory persists after discontinuation of peripubertal GnRH agonist treatment in sheep Hough, D., Bellingham, M., Haraldsen, I.R., McLaughlin, M., Robinson, J.E., Solbakk, A.K., Evans, N.P. (2016) https://pubmed.ncbi.nlm.nih.gov/279874	A previous ovine study demonstrated that long-term spatial memory is reduced in adult rams following GnRHa treatment. The current study investigated whether this effect is reversed after discontinuation of GnRHa-treatment. A total of 25 rams that were previously given the puberty suppressing hormone were compared with 30 control subjects. The long-term spatial memory performance of the recovery rams remained reduced after discontinuation of GnRHa (at 83 and 99 weeks of age), compared to Controls. This result suggests that the time at which puberty normally occurs may represent a critical period of hippocampal plasticity. Perturbing normal hippocampal formation in

<p>29/</p>	<p>this peripubertal period may also have long lasting effects on other brain areas and aspects of cognitive function.</p>
<p>Psychological assessments before and after treatment of early puberty in adopted children</p> <p>Mul, D., Versluis-den Bieman, H.J., Slijper, F.M., Oostdijk, W., Waelkens, J.J., Drop, S.L. (2001)</p> <p>https://pubmed.ncbi.nlm.nih.gov/11683207/</p>	<p>A randomised trial of 30 adopted children with early puberty treated with GnRHa and psychologically evaluated. Treatment with GnRHa with or without GH did not increase emotional and behavioural problems in adopted children, nor was their self-perception decreased, however IQ levels dropped (this was not deemed to be clinically relevant).</p>
<p>Bone Health in the Transgender Population</p> <p>Rothman, M.S., Iwamoto, S.J. (2019)</p> <p>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6709704/</p>	<p>A review of studies investigating bone health in transgender conclude that studies to date show that when oestrogen is initiated in trans women, there are positive changes in BMD and some measures of bone quality, when testosterone is initiated in trans men, the changes in BMD are not as robust, but body composition changes and direct effects of testosterone on the bone likely protect BMD. Low levels of estradiol likely still offer bone protection in trans men as in cis men. They also point out that this is not a straightforward result; variables such as ethnicity, BMI and lifestyle habits play a crucial role. It is worth remembering that trans individuals may not have optimal healthy lifestyles to achieve peak bone mass (baseline BMD is found to be below average in transgender before treatment begins). Fracture risk is still unknown.</p>
<p>Puberty blockers for transgender and gender diverse youth—a critical review of the literature</p> <p>Rew, L., Young, C.C. (2021)</p> <p>https://doi.org/10.1111/camh.12437</p>	<p>A review of the literature on puberty blockers for transgender youth. From an initial sample of 211 articles, 9 research studies that met inclusion/exclusion criteria were systematically reviewed. Positive outcomes were decreased suicidality in adulthood, improved affect and psychological functioning, and improved social life. Adverse factors associated with use were changes in body composition, slow growth, decreased height velocity, decreased bone turnover, cost of drugs, and lack of insurance coverage. The authors advise that given the potentially life-saving benefits of these medications for TGD youth, it is critical that rigorous longitudinal and mixed methods research be conducted that includes stakeholders and members of the gender diverse community with representative samples.</p>

<p>Access to gender-affirming hormones during adolescence and mental health outcomes among transgender adults</p> <p>Turban, J.L., King, D., Kobe, J., Reisner, S.L., Keuroghlian, A.S. (2022)</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8754307/</p>	<p>A secondary analysis of the 2015 U.S. Transgender Survey with a sample of 27,715. Using multivariable logistic regression adjusting for potential confounders, they examined associations between access to GAH during early adolescence (age 14–15), late adolescence (age 16–17), or adulthood (age ≥18) and adult mental health outcomes, with participants who desired but never accessed GAH as the reference group. 21,598 participants (77.9%) reported ever desiring GAH. Of these, 8,860 (41.0%) never accessed GAH, 119 (0.6%) accessed GAH in early adolescence, 362 (1.7%) accessed GAH in late adolescence, and 12,257 (56.8%) accessed GAH in adulthood. Access to GAH during adolescence and adulthood was associated with favourable mental health outcomes compared to desiring but not accessing GAH.</p>
<p>Psychosexual outcome of gender-dysphoric children</p> <p>Wallien, M.S., Cohen-Kettenis, P.T. (2008)</p> <p>https://pubmed.ncbi.nlm.nih.gov/18981931/</p>	<p>A study looking into the psychosexual outcomes of 77 gender-dysphoric children used questionnaires and found that most will not remain gender dysphoric after puberty. Children with persistent GID are characterised by more extreme gender dysphoria in childhood than children with desisting gender dysphoria. With regard to sexual orientation, the most likely outcome of childhood GID is homosexuality or bisexuality.</p>
<p>A systematic review of hormone treatment for children with gender dysphoria and recommendations for research</p> <p>Ludvigsson, J.F., Adolfsson, J., Höistad, M., Rydelius, P-A., Kriström, B., Landén, M. (2023)</p> <p>https://doi.org/10.1111/apa.16791</p>	<p>Systematic review assessing hormone treatment effects on psychosocial and mental health, cognition, body composition, and metabolic markers in youths with gender dysphoria. 24 studies were deemed relevant: in 21 studies adolescents were given GnRHa treatment; in three studies cross-sex hormone treatment (CSHT) was given without previous GnRHa treatment. No randomised controlled trials were identified. The few longitudinal observational studies were hampered by methodological weaknesses, such as small numbers and high attrition rates. Hence, the long-term effects of hormone therapy on psychosocial health could not be evaluated. The exception being that children with gender dysphoria often had lower group mean values for Bone Mineral Density already prior to GnRHa treatment, and that GnRHa treatment delays the physiologically occurring BMD gain during pubertal sex hormone stimulation. However, this GnRHa-induced delay in BMD gain is almost fully compensated for by later ensuing Cross Sex Hormone Therapy. Evidence was concluded to be insufficient in this area.</p>
<p>Endocrine Treatment of Gender-</p>	<p>A team from the Endocrine Society carried out two systematic reviews</p>

<p>Dysphoric/Gender-Incongruent Persons: and a literature review, which contributed to an evidence-based An Endocrine Society Clinical Practice guideline using the GRADE approach. They concluded that Hormone Guideline treatment is not recommended for prepubertal gender- dysphoric/gender-incongruent persons. They recommend treating Hembree, W.C., Cohen-Kettenis, P.T., gender-dysphoric adolescents who have entered puberty at Tanner Gooren, L., Hannema, S.E., Meyer, W.J., Stage G2/B2 by suppression with gonadotropin-releasing hormone Murad, M.H., Rosenthal, S.M., Safer, J.D., agonists. For the care of peripubertal youths and older adolescents, Tangpricha, V., T'Sjoen, G.G. (2017) they recommend that an expert multidisciplinary team comprised of medical professionals and mental health professionals manage this treatment.</p> <p>https://pubmed.ncbi.nlm.nih.gov/28945902/</p>	
<p>2015 U.S. Transgender Survey</p> <p>Anonymous online survey of 27,715 transgender people in the United States.</p> <p>https://www.ustranssurvey.org/reports/#2015report</p>	
<p>Toward Trans Reproductive Justice: A Qualitative Analysis of Views on Fertility Preservation for Australian Transgender and Non-binary People</p> <p>Article drawing on three Australian studies focused on views about fertility preservation among (1) parents of transgender and non-binary children, (2) transgender and non-binary adults, and (3) healthcare professionals working with transgender and non-binary people.</p> <p>Riggs, D. W., Bartholomaeus, C. (2020)</p> <p>https://spssi.onlinelibrary.wiley.com/doi/abs/10.1111/josi.12364</p>	
<p>'Taking the lid off the box': The value of extended clinical assessment for adolescents presenting with gender identity difficulties.</p> <p>Article presenting a joint case review of the authors' caseloads over an 18-month period, to identify and describe those young people who presented to the Gender Identity Development Service (GIDS) with gender dysphoria (GD) emerging in adolescence, and who, during the course of assessment, ceased wishing to pursue medical (hormonal) interventions and/or came to understand their distress and its alleviation (at that particular point in time) differently and eventually chose to identify their gender identity as broadly aligned with their biological sex.</p> <p>Churcher Clarke, A., Spiliadis, A. (2019)</p> <p>https://journals.sagepub.com/doi/abs/10.1177/1359104518825288</p>	
<p>Transgender Adolescent Suicide Behavior</p> <p>Examination of prevalence rates of attempted suicide among 120,617 adolescents over a 36-month period between June 2012 and May 2015. Disparities by gender identity were found, with female to male adolescents reporting the highest rate (50.8%), followed by</p> <p>Toomey, R., Syvertsen, A., Shramko, M. (2018)</p>	

<p>https://publications.aap.org/pediatrics/article-abstract/142/4/e20174218/76767/Transgender-Adolescent-Suicide-Behavior?redirectedFrom=fulltext</p>	<p>adolescents who identified as not exclusively male or female (41.8%), male to female adolescents (29.9%), questioning adolescents (27.9%), female adolescents (17.6%), and male adolescents (9.8%).</p>
<p>Perceptions of Sex, Gender, and Puberty Suppression: A Qualitative Analysis of Transgender Youth Vrouenraets, L.J., Fredriks, A.M., Hannema, S.E., Cohen-Kettenis, P.T., de Vries, M.C. (2016) https://pubmed.ncbi.nlm.nih.gov/27251640/</p>	<p>Interviews with 13 transgender adolescents (12 receiving puberty suppressing hormones) explicating the considerations of gender dysphoric adolescents in the Netherlands concerning the use of puberty suppression and exploring whether the considerations of gender dysphoric adolescents differ from those of professionals working in treatment teams. From the interviews four themes emerged: (1) the difficulty of determining what is an appropriate lower age limit for starting puberty suppression; (2) the lack of data on the long-term effects of puberty suppression; (3) the role of the social context, for which there were two subthemes: (a) increased media attention, on television and on the Internet; and (b) an imposed stereotype; and (4) compared to clinicians, adolescents were often more cautious in their treatment views.</p>
<p>Puberty and puberty blockers Healthtalk (2022) https://healthtalk.org/Experiences-of-trans-and-gender-diverse-young-people/Trans-and-gender-diverse-young-peoples-experiences-of-puberty-and-puberty-blockers</p>	<p>Interviews with 50 trans and gender diverse young people in England, Wales and Scotland describing their experience of puberty blockers, or the impact puberty blockers would have had on their lives if they had been able to access them at puberty.</p>
<p>Chronic psychosocial stress and experimental pubertal delay affect socioemotional behavior and amygdala functional connectivity in adolescent female rhesus macaques Pincus, M., Godfrey, J.R., Feczko, E., Earl, E., Miranda-Dominguez, O., Fair, D.,</p>	<p>Investigating how the timing of puberty interacts with stress in the female adolescent brain. The study used female monkeys: comparing those that experienced puberty spontaneously (n=34) with a pubertal delay (n=36). They examined the effects of stress and experimental pubertal delay on socioemotional behaviour and amygdala connectivity at 43–46 months, after all animals had begun puberty. Social status and pubertal delay did not interact - late onset of puberty did not exacerbate subordination stress. In the brain, however,</p>

<p>Wilson, M.E., Sanchez, M.M., Kelly, C. (2021) https://pubmed.ncbi.nlm.nih.gov/33647571/</p>	<p>delayed puberty and subordination stress had separable effects, suggesting that the overlapping socioemotional outcomes may be mediated by distinct neuroplastic mechanisms. To gain further insights, additional longitudinal studies are required.</p>
<p>Treatment of Central Precocious Puberty Eugster, E. (2019) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6486823/</p>	<p>Literature review discussing issues pertaining to treating children with central precocious puberty (CPP) with long-acting analogs of GnRH (GnRHAs). GnRHAs are described as having “an enviable track record of safety and efficacy” and that while “bone mineral density typically [...] progressively decreases during GnRHa treatment, follow-up of patients several years after cessation of therapy reveals bone mineral accrual to be within the normal range compared with population norms.” It is also noted that there is less safety information for newer extended-release GnRHa formulations than for historically used preparations, though “the efficacy and safety of longer-acting and sustained-release forms of GnRHAs is not expected to [change]”.</p>
<p>Diabetes and cardiovascular disease during androgen deprivation therapy for prostate cancer. Keating, N.L., O’Malley, A.J., Smith, M.R. (2006) https://pubmed.ncbi.nlm.nih.gov/16983113/</p>	<p>Observational study of 73,196 people aged 66 years or older who were diagnosed with prostate cancer assessing whether treatment with GnRH agonists or orchiectomy was associated with diabetes, coronary heart disease, myocardial infarction, and sudden cardiac death. More than one third of men received a GnRH agonist during follow-up. GnRH agonist use was associated with increased risk of incident diabetes, coronary heart disease, myocardial infarction and sudden cardiac death.</p>
<p>Puberty-blocking hormonal therapy for adolescents with gender identity disorder: A descriptive clinical study Zucker, K. J., Bradley, S. J., Owen-Anderson, A., Singh, D., Blanchard, R., Bain, J. (2010) https://www.tandfonline.com/doi/abs/10.1080/19359705.2011.530574</p>	<p>Study of 109 adolescents with GID examining whether demographic, behaviour problem, and psychosexual measures correlated with the clinical decision to recommend, or not recommend, puberty-blocking hormonal therapy.</p>
<p>Treatment with a luteinizing hormone-releasing hormone agonist in adolescents</p>	<p>Study of fifty short adolescents with low predicted adult height who received either a luteinising hormone-releasing hormone (LHRH)</p>

<p>with short stature</p> <p>Yanovski, J.A., Rose, S.R., Municchi, G., Pescovitz, O.H., Hill, S.C., Cassorla, F.G., Cutler Jr, G.B. (2003)</p> <p>https://pubmed.ncbi.nlm.nih.gov/12621135/</p>	<p>agonist (26 subjects) or placebo (24 subjects). Forty-seven of the fifty were followed until they attained adult height and those who were treated with an LHRH agonist were found to attain significantly greater adult height than those who received a placebo, but also to experience substantially decreased bone mineral density. Treatment with an LHRH agonist was therefore not recommended to augment height in adolescents with normally timed puberty.</p>
<p>Perceptions on the function of puberty suppression of transgender adolescents who continued or discontinued treatment, their parents, and clinicians</p> <p>Vrouenraets, L.J., de Vries, M.C., Hein, I.M., Arnoldussen, M., Hannema, S.E., de Vries, A.L. (2022)</p> <p>https://pubmed.ncbi.nlm.nih.gov/36324881/</p>	<p>Study using interviews with eight transgender adolescents who proceeded with gender affirming medical treatment (GAMT) after puberty suppression (PS), six adolescents who discontinued PS, 12 parents, and focus groups with ten clinicians.</p>
<p>Efficacy and Safety of Gonadotropin-Releasing Hormone Agonist Treatment to Suppress Puberty in Gender Dysphoric Adolescents</p> <p>Schagen, S.E., Cohen-Kettenis, P.T., Delemarre-van de Waal, H.A., Hannema, S.E. (2016)</p> <p>https://pubmed.ncbi.nlm.nih.gov/27318023/</p>	<p>Studying the efficacy and safety of puberty blocking hormones. 49 male-to-female and 67 female-to-male gender dysphoric adolescents treated with Triptorelin (a type of GnRH) were included in the analysis. A physical examination took place every 3 months and blood samples were drawn at 0, 3, and 6 months and then every 6 months. No sustained abnormalities of liver enzymes or creatinine were encountered. Alkaline phosphatase decreased, probably related to a slower growth velocity, because height standard deviation (SD) score decreased in boys and girls. Lean body mass percentage significantly decreased during the first year of treatment in girls and boys, whereas fat percentage significantly increased. Conclusion: Triptorelin effectively suppresses puberty in gender dysphoric adolescents. These data suggest routine monitoring of gonadotropins, sex steroids, creatinine, and liver function is not necessary during treatment with triptorelin. Further studies should evaluate the extent to which changes in height SD score and body composition that occur during GnRHa treatment can be reversed during subsequent cross-sex hormone treatment.</p>

<p>Trans YP evidence and resources - looking into the effects of puberty blockers</p> <p>Scottish government document (2017)</p> <p>https://www.gov.scot/binaries/content/documents/govscot/publications/foi-eir-release/2020/01/foi-201900010673/documents/foi-201900010673---document-3---puberty-blockers-and-trans-yp---april-2017/foi-201900010673---document-3---puberty-blockers-and-trans-yp---april-2017/govscot%3Adocument/FOI-201900010673%2B-%2BDocument%2B3%2B-%2B%2BPuberty%2Bblockers%2Band%2BTrans%2BYP%2B-%2BApril%2B2017.pdf</p>	<p>Summary of evidence and resources relating to the effects of puberty blockers on transgender youth.</p>
<p>Reddit 2023 detransition survey</p> <p>DeTransIS (2023)</p> <p>https://www.reddit.com/r/detrans/comments/11sfyvu/the_rdetrans_2023_screened_demographic_summary/</p>	<p>Survey of 207 ‘detransitioners’ answering questions about their experience of gender dysphoria and their subsequent decision to cease social transition and/or cross-sex HRT and/or surgery and returned to living as their birth sex.</p>
<p>Trans Mental Health Study 2012</p> <p>McNeil, J., Bailey, L., Ellis, S., Morton, J., Regan, M. (2012)</p> <p>https://www.scottishtrans.org/wp-content/uploads/2013/03/trans_mh_study.pdf</p>	<p>Survey of 889 participants by the Scottish Transgender Alliance. Key related findings were: 70% of participants were more satisfied with their lives since transitioning and 2% were less satisfied; 85% were more satisfied with their body since undertaking hormone therapy and 2% were less satisfied; 74% felt that their mental health had improved as a result of transitioning, while the 5% who reported a decline in their mental health since transitioning felt that their issues were unrelated or ‘not directly related’ to the transition; 63% thought about or attempted suicide more before they transitioned and 3% thought about or attempted suicide more post-transition; and with regard to physical changes which they had undergone in relation to being trans, 86% had no regrets, 10% had minor regrets and 2% had major regrets.</p>

<p>'If they didn't support me, I most likely wouldn't be here': Transgender young people and their parents negotiating medical treatment in Australia</p> <p>Riggs, D. W., Bartholomaeus, C., Sansfaçon, A. P. (2019)</p> <p>https://doi.org/10.1080/15532739.2019.1692751</p>	<p>Ten qualitative interviews with Australian transgender young people (aged 11–17) and their parents with regard to medical treatment in two Australian states. Themes developed focused on the importance of strong supportive parent-child relationships, the meaning of and access to hormone blockers, and the meaning of and access to hormones. The paper concludes by discussing the implications of the findings for clinical services, particularly in relation to supporting parents to be affirming of a transgender child, the need to prepare transgender young people and their parents for the passage of time in regard to medical treatment, and the need to focus on expectations in regard to sense of self in relation to medical treatment.</p>
<p>Risk of pseudotumor cerebri added to labelling for gonadotropin-releasing hormone agonists</p> <p>US Food and Drug Administration (2022)</p> <p>https://www.fda.gov/media/159663/download</p>	<p>The Food and Drug Administration has added a warning about the risk of pseudotumour cerebri (occurs when too much cerebrospinal fluid accumulates in your skull and creates pressure, causing symptoms such as headaches and blurred vision) to the labelling for GnRHa. Six cases were identified that supported a plausible association between GnRH agonist use and pseudotumour cerebri.</p>
<p>Is puberty delaying treatment 'experimental treatment'?</p> <p>Giordano, S., Holm, S. (2020)</p> <p>https://www.tandfonline.com/doi/full/10.1080/26895269.2020.1747768</p>	<p>Study investigating whether puberty delaying treatment is experimental. It reviews published evidence and concludes that the international clinical community has found a sensible point of balance: GnRHa can be prescribed to adolescents who experience strong and distressing dysphoria. GnRHa is not usually recommended for prepubertal children, when there is still significant uncertainty around the future gender identity development trajectory. The reaction to pubertal development will be part of the clinical assessment. In this way, most likely GnRHa will only be given to those who most likely will choose to continue to transition, but should the patient change their mind, then no permanent changes will have been affected (whereas, should an untreated person transition, permanent changes of pubertal development will only be partially reversible surgically). Parents, clinicians and significant others should continue to be open to the idea that the gender identity development of an adolescent might fluctuate even after puberty and therefore that the provision of gender affirming medical treatment is a separate decision from the earlier provision of puberty delaying treatment.</p>

<p>Impact of gender-affirming care bans on transgender and gender diverse youth: Parental figures' perspective.</p> <p>Matsuno, E. (2022)</p> <p>https://psycnet.apa.org/record/2022-47098-001</p>	<p>Qualitative study exploring parents' perceptions of how bans on gender affirming care affect their TGD child and advice for legislators/policymakers regarding the impact on the well-being of TGD youth. Responses to an online survey with 134 participants were analysed. Thematic analysis revealed five themes regarding the impact that these anti-transgender laws and bills have on TGD youth, including (a) depression and suicidal ideation/risk of suicide, (b) anxiety, (c) increased gender dysphoria, (d) decreased safety and increased stigma, and (e) lack of access to medical care. Parental figures also provided direct feedback to legislators/policy makers regarding the impact of these laws and bills on the well-being of TGD youth, including (a) transgender youth health is not a political issue, (b) decriminalise gender affirming medical care, (c) decrease discrimination and violence against transgender people, and (d) become educated on transgender health-care issues.</p>
<p>Experiences of Puberty and Puberty Blockers: Insights From Trans Children, Trans Adolescents, and Their Parents</p> <p>Horton, C. (2022)</p> <p>https://doi.org/10.1177/07435584221100591</p>	<p>Study exploring experiences of transgender children and their families, understanding experiences relating to puberty and puberty blocking medication. Data were drawn from 30 parents of 40 trans children and adolescents. Qualitative interviews covered aspects of family life, healthcare, and education, as well as experiences of puberty, and of accessing, or trying to access, puberty blockers. Three major themes emerged, relating to pre-pubertal anxiety; difficulties accessing blockers; and, for a minority who were on blockers, experiences of relief and frustration. These accounts from adolescents and parents align with the perspectives of a number of clinicians who have written on the potential harms of inflexible protocols that inhibit options for gender-congruent peer-concordant puberty</p>
<p>The Amsterdam Cohort of Gender Dysphoria Study (1972–2015): Trends in Prevalence, Treatment, and Regrets</p> <p>Wiepjes, C.M., Nota, N.M., de Blok, C.J.M., Klaver, M., de Vries, A.L.C., Wensing-Kruger, S.A., de Jongh, R.T., Bouman, M.B., Steensma, T.D., Cohen-Kettenis, P., Gooren, L.J.G., Kreukels, B.P.C., den Heijer, M. (2018)</p>	<p>Study examining the current prevalence of gender dysphoria, how frequently gender-affirming treatments are performed, and the number of people experiencing regret of this treatment. The records of 6,793 people who visited a Dutch gender identity clinic from 1972 through 2015 were assessed. The number of people assessed per year increased 20-fold from 34 in 1980 to 686 in 2015. The percentage of people who started HT within 5 years after the 1st visit decreased over time, with almost 90% in 1980 to 65% in 2010. The percentage of people who underwent gonadectomy within 5 years after starting HT remained stable over time . Only 0.6% of trans women and 0.3% of</p>

<p>https://doi.org/10.1016/j.jsxm.2018.01.016</p>	<p>trans men who underwent gonadectomy were identified as experiencing regret.</p>
<p>Body Dissatisfaction and Mental Health Outcomes of Youth on Gender-Affirming Hormone Therapy</p> <p>Kuper, L.E., Stewart, S., Preston, S., Lau, M., Lopez, X. (2020)</p> <p>https://doi.org/10.1542/peds.2019-3006</p>	<p>Study examining body dissatisfaction and mental health of youth taking gender-affirming hormones (including puberty suppression). 148 participants (n=25 puberty suppression only; n=123 feminising or masculinising hormone therapy) completed surveys assessing body dissatisfaction, depression and anxiety. Info on suicidal ideation, suicide attempt, and NSSI was collected at initial presentation to the clinic and at follow-up. One year of receiving gender-affirming hormone therapy resulted in large reductions in youth body dissatisfaction and modest improvements in mental health. No demographic or treatment-related factors were associated with change over time.</p>
<p>Bone Development in Transgender Adolescents Treated With GnRH Analogues and Subsequent Gender-Affirming Hormones</p> <p>Sebastian, E.E., Schagen, F.M., Wouters, P.T., Cohen-Kettenis, P.T., Gooren, L.J., Hannema, S.E. (2020)</p> <p>https://academic.oup.com/jcem/article/105/12/e4252/5903559?login=false</p>	<p>Study investigating bone mass development in adolescents with gender dysphoria treated with gonadotropin-releasing hormone analogues (GnRHa), subsequently combined with gender-affirming hormones. It enlisted 51 transgirls and 70 transboys receiving GnRHa and 36 transgirls and 42 transboys receiving GnRHa and gender-affirming hormones, subdivided into early- and late-pubertal groups. Bone Mass Apparent Density z-scores decreased during GnRHa treatment and increased during gender-affirming hormone treatment. Transboys had normal z-scores at baseline and at the end of the study. However, transgirls had relatively low z-scores, both at baseline and after 3 years of oestrogen treatment, but as z-scores were already lower at baseline, this may be due to other factors than the endocrine treatment, such as lifestyle factors. It is currently unclear whether this results in adverse outcomes, such as increased fracture risk, in transgirls as they grow older.</p>
<p>Association of Gonadotropin-Releasing Hormone Analogue Use With Subsequent Use of Gender-Affirming Hormones Among Transgender Adolescents</p> <p>Nos, A.L., Klein, D.A., Adirim, T.A., et al. (2022)</p>	<p>Study investigating the association between GnRH analogue and the increased subsequent use of gender affirming hormones. Using a sample of 434 adolescents, and a retrospective cohort study design they found no significant association. These findings suggest that clinicians can offer gonadotropin-releasing hormone analogues to transgender and gender-diverse adolescents during pubertal development for mental health and cosmetic benefits without an increased likelihood of subsequent use of gender-affirming hormones.</p>

<p>https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2798002</p>	
<p>Association of Gender-Affirming Hormone Therapy With Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth.</p> <p>Green, A.E., DeChants, J.P., Price, M.N., Davis, C.K. (2021)</p> <p>https://pubmed.ncbi.nlm.nih.gov/34920935/</p>	<p>Study examining associations among access to Gender Affirming Hormone Therapy with depression, thoughts of suicide, and attempted suicide among transgender and non-binary youth. Data were collected as part of a survey of 34,759 lesbian, gay, bisexual, transgender, queer, and questioning youth aged 13-24, including 11,914 transgender or non-binary youth. Adjusted logistic regression assessed whether receipt of Gender Affirming Hormone Therapy (GAHT) was associated with lower levels of depression, thoughts of suicide, and attempted suicide among those who wanted to receive GAHT.</p> <p>Half of transgender and non-binary youth said they were not using GAHT but would like to, 36% were not interested in receiving GAHT, and 14% were receiving GAHT. Parent support for their child’s gender identity had a strong relationship with receipt of GAHT, with nearly 80% of those who received GAHT reporting they had at least one parent who supported their gender identity. Use of GAHT was associated with lower odds of recent depression and seriously considering suicide compared to those who wanted GAHT but did not receive it. Findings support a relationship between access to GAHT and lower rates of depression and suicidality among transgender and non-binary youth.</p>
<p>Psychological Support, Puberty Suppression, and Psychosocial Functioning in Adolescents with Gender Dysphoria</p> <p>Costa, R., Dunsford, M., Skagerberg, E., Holt, V., Carmichael, P., Colizzi, M. (2015)</p> <p>https://pubmed.ncbi.nlm.nih.gov/26556015/</p>	<p>Study assessing 201 GD adolescents’ global functioning after 6 months and 12 months of psychological support and puberty suppression. Results from this study indicate that psychological support is associated with a better psychosocial functioning in GD adolescents, especially if presenting psychological/psychiatric problems. Moreover, puberty suppression was associated with a further improvement in global functioning. Finally, global functioning improved steadily over time in GD adolescents receiving both psychological support and GnRHa.</p>
<p>Effect of Concurrent Gonadotropin-Releasing Hormone Agonist Treatment on Dose and Side Effects of Gender-Affirming Hormone Therapy in</p>	<p>Study assessing data from 83 patients to establish whether the use of GnRHa effects the dose and side effects of gender affirming hormones; GnRHa use was correlated with lower doses of gender-affirming hormones at the final point of data collection, suggesting that</p>

<p>Adolescent Transgender Patients Jensen, R. K., Jensen, J. K., Simons, L. K., Chen, D., Rosoklija, I., Finlayson, C. A. (2019) https://pubmed.ncbi.nlm.nih.gov/31663037/</p>	<p>concurrent GnRHa may decrease doses of hormones needed to achieve desired physiological changes. This is significant in relation to findings from other studies around the concerning side effects of gender affirming hormones such as elevated liver enzymes (which if left unaddressed can lead to organ damage). The current study suggests that the less hormone dose is required, the less severe the side effects, therefore showing a potential benefit of puberty suppressing hormones. It should be noted that though these data support the use of GnRHa in adjunct to gender-affirming hormones, GnRHa are not without their own side effects, (hot flashes, mood swings, and weight gain). Though not inherently dangerous to the patient, such side effects can cause substantial discomfort and should be included in risk-benefit discussions with patients.</p>
<p>Psychological Functioning in Transgender Adolescents Before and After Gender-Affirmative Care Compared With Cisgender General Population Peers van der Miesen, A.I.R., Steensma, T.D., de Vries, A.L.C., Bos, H., Popma, A. (2020) https://pubmed.ncbi.nlm.nih.gov/32273193/</p>	<p>Study comparing transgender adolescents before and after gender-affirmative care with a sample of cisgender adolescents on psychological well-being and aimed to investigate the possible effect of transgender care involving puberty suppression. Emotional and behavioural problems were assessed by the Youth Self-Report in a sample of 272 adolescents who did not yet receive any affirmative medical treatment and compared with 178 transgender adolescents receiving affirmative care consisting of puberty suppression and compared with 651 high school cisgender adolescents from the general population. Transgender adolescents showed poorer psychological well-being before treatment but show similar or better psychological functioning compared with cisgender peers from the general population after the start of specialised transgender care involving puberty suppression.</p>
<p>Puberty suppression in adolescents with gender identity disorder: a prospective follow-up study de Vries ALC. (2020) https://pubmed.ncbi.nlm.nih.gov/20646177/</p>	<p>This study compares psychological functioning and gender dysphoria before and after puberty suppression in 70 gender dysphoric adolescents. Behavioural and emotional problems (Child Behaviour Checklist and the Youth-Self Report), depressive symptoms (Beck Depression Inventory), anxiety and anger (the Spielberger Trait Anxiety and Anger Scales), general functioning (the clinician’s rated Children’s Global Assessment Scale), gender dysphoria (the Utrecht Gender Dysphoria Scale), and body satisfaction (the Body Image Scale) were assessed.</p>

	<p>Behavioural and emotional problems and depressive symptoms decreased, while general functioning improved significantly during puberty suppression. Feelings of anxiety and anger did not change . Gender dysphoria and body satisfaction did not change. No adolescent withdrew from puberty suppression, and all started cross-sex hormone treatment, the first step of actual gender reassignment.</p>
<p>Sexual Experiences of Young Transgender Persons During and After Gender-Affirmative Treatment Bunger, S.L., de Vries, A.L.C., Popma, A., Steensma, T.D. (2020) https://doi.org/10.1542/peds.2019-1411</p>	<p>Study describing sexual and romantic development during and after gender affirming treatment. The participants were 113 transgender adolescents treated with puberty suppression, affirmative hormones, and affirmative surgery. A questionnaire on sexual experiences, romantic experiences, and subjective sexual experiences was administered and compared to the experiences of a same-aged sample. One year post surgery, young transgender adults reported a significant increase in experiences with all types of sexual activities. In comparison with the general population, young transgender adults were less experienced with all types of sexual activities. Therefore, treatment may provide young transgender adults with the opportunity to increase their romantic and sexual experiences.</p>
<p>Psychosocial Characteristics of Transgender Youth Seeking Gender-Affirming Medical Treatment: Baseline Findings From the Trans Youth Care Study - Journal of Adolescent Health Chen, D., Abrams, M., Clark, L., Ehrensaft, D., Tishelman, A.C., Chan, Y.M., Garofalo, R., Olson-Kennedy, J., Rosenthal, S.M., Hidalgo, M.A. (2021) https://doi.org/10.1016/j.jadohealth.2020.07.033</p>	<p>Study examining baseline mental health and well-being among GD youth taking GnRHa treatment (n=95) and GAH treatment (n=316). Elevated depression symptoms were endorsed by 28.6% of GnRHa vs 51.3% of GAH cohort, and 22.1% vs 57.3% endorsed clinically significant anxiety. 23.6% vs 66.6% endorsed lifetime suicidal ideation, with 7.9% vs 24.6% reporting a past suicide attempt. GnRHa cohort youth recognised their gender as different from their designated sex at birth, on average, at an age approximately four years younger than GAH cohort youth and were able to access gender-affirming medical treatment earlier in development. It is possible that early access to medical treatment, which prevents an unwanted puberty in the GnRHa cohort, alleviates psychological distress and accounts for the better picture of mental health and well-being in the GnRHa cohort compared to the GAH cohort.</p>
<p>Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation Turban, J.L., King, D., Kobe, J., Carswell, J.M., Keuroghlian, A.S. (2022)</p>	<p>Study examining associations between access to pubertal suppression during adolescence and adult mental health outcomes. A sample of 20 619 transgender adults were enlisted; multivariable logistic regression was the method used to examine associations between access to pubertal suppression and adult mental health outcomes, including</p>

<p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7073269/</p>	<p>multiple measures of suicidality. Of the sample, 16.9% reported that they ever wanted pubertal suppression as part of their gender-related care. Of them, 2.5% received pubertal suppression. After adjustment for demographic variables and level of family support for gender identity, those who received treatment with pubertal suppression, when compared with those who wanted pubertal suppression but did not receive it, had lower odds of lifetime suicidal ideation</p>
<p>Australian children and adolescents with gender dysphoria: Clinical presentations and challenges experienced by a multidisciplinary team and gender service</p> <p>Kozłowska, K., McClure, G., Chudleigh, C., Maguire, A.M., Gessler, D., Scher, S., Ambler, G.R. (2021)</p> <p>https://journals.sagepub.com/doi/full/10.1177/26344041211010777</p>	<p>Study examining the clinical characteristics of 79 children with gender dysphoria at a gender service in Australia, and the challenges faced by the clinicians. The clinical characteristics included a slightly higher number of biological females to males, high levels of distress, suicidal ideation, self-harm and suicide attempts and high rates of comorbid mental health disorders: anxiety, depression behavioural disorders and autism. Key challenges faced by the clinicians included the following: the effects of increasingly dominant, polarised discourses on daily clinical practice; issues pertaining to patient and clinician safety (including pressures to abandon the holistic [biopsychosocial] model); the difficulties of untangling gender dysphoria from comorbid factors such as anxiety, depression, and sexual abuse; and the factual uncertainties present in the currently available literature on longitudinal outcomes. Results suggest the need to bring into play a biopsychosocial, trauma-informed model of mental health care for children presenting with gender dysphoria. Ongoing therapeutic work needs to address unresolved trauma and loss, the maintenance of subjective well-being, and the development of the self.</p>
<p>Continuation of gender-affirming hormones in transgender people starting puberty suppression in adolescence: a cohort study in the Netherlands</p> <p>van der Loos, M.A.T.C., Hannema, S.E., Klink, D.T., den Heijer, M., Wiepjes, C.M. (2022)</p> <p>https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(22)00254-1/fulltext</p>	<p>Study examining the proportion of people who continued gender-affirming hormone treatment at follow-up after having started puberty suppression and gender-affirming hormone treatment in adolescence. 720 people were included, of whom, 31% were assigned male at birth and 69% were assigned female at birth. Most participants who started gender-affirming hormones in adolescence continued this treatment into adulthood. The continuation of treatment is considered reassuring by the authors considering the worries that people who started treatment in adolescence might discontinue gender-affirming treatment.</p>

<p>Cognitive, Emotional, and Psychosocial Functioning of Girls Treated with Pharmacological Puberty Blockage for Idiopathic Central Precocious Puberty</p> <p>Wojniusz, S., Callens, N., †, Sütterlin, S., Andersson, S., De Schepper, J., Gies, I., Vanbesien, J., De Waele, K., Van Aken, S., Craen, M., Vögele, C., Cools, M., Haraldsen, I. R. (2016)</p> <p>https://doi.org/https://dx.doi.org/10.3389/fpsyg.2016.01053</p>	<p>Study exploring differences in cognitive function, behaviour, emotional reactivity, and psychosocial problems between GnRHa treated CPP girls and age-matched controls. Fifteen girls with precocious puberty treated with GnRHa and 15 age-matched controls were assessed, both groups showed very similar scores with regard to cognitive performance, behavioural and psychosocial problems. Compared to controls, treated girls displayed significantly higher emotional reactivity.</p>
<p>“I Didn’t Want Him to Disappear” Parental Decision-Making on Access to Puberty Blockers for Trans Early Adolescents.</p> <p>Horton, C. (2022)</p> <p>https://journals.sagepub.com/doi/10.1177/02724316221107076</p>	<p>Study exploring parental views on puberty blockers, aiming to understand how supportive parents of socially transitioned trans children view puberty blockers, how they consider risks and benefits, and how they approach decision-making. Semi structured interviews were conducted with 30 parents, thematic analysis produced three key themes relating to the purpose of puberty blockers, parental perspectives on consent, and parental approaches to decision making without certainty. Parents viewed puberty blockers as critical to protection of their children’s mental health and quality of life.</p>
<p>Peri-pubertal gonadotropin-releasing hormone analog treatment affects hippocampus gene expression without changing spatial orientation in young sheep</p> <p>Nuruddin, S., Wojniusz, S., Ropstad, E., Krogenæs, A., Evans, N.P., Robinson, J.E., Solbakk, A.K., Amiry-Moghaddam, M., Haraldsen, I.R. (2013)</p> <p>https://pubmed.ncbi.nlm.nih.gov/23266521/</p>	<p>Study exploring the effects of GnRHa on hippocampal gene expression and spatial orientation in sheep. The study was conducted with 30 same-sex twin lambs, half of which were treated with GnRHa every 4th week, beginning before puberty, until 50 weeks of age. Animals were tested in their spatial orientation ability at 48 weeks of age. A quantitative analysis was conducted to examine the effects of treatment on the expression of genes associated with synaptic plasticity and endocrine signalling. They found significant changes, within the hippocampus, of levels of expression of mRNA transcripts known to be involved in endocrine signalling and synaptic plasticity. The treatment had no significant effect on spatial orientation. These results have to be taken into consideration when long-term peripubertal GnRHa treatment is used in children.</p>
<p>Impact of Hormone Treatment on Psychosocial Functioning in Gender-</p>	<p>Study of a cohort of 38 young people before treatment, 1 year into GnRHa, and 1 year into GAH treatment to understand psychological</p>

<p>Diverse Young People Lavender, R., Shaw, S., Maninger, J.K., Butler, G., Carruthers, P., Carmichael, P., Masic, U. (2023) https://doi.org/10.1089/lgbt.2022.0201</p>	<p>and behavioural impacts over time. Young people completed the Youth Self Report (YSR), the Body Image Scale, and the Utrecht Gender Dysphoria Scale, while caregivers completed the Child Behaviour Checklist (CBCL) and the Social Responsiveness Scale-2 at all time points. They found that Dissatisfaction with primary sexual characteristics, gender dysphoria, and social motivation improved significantly over time. Self-harm and suicidality also showed a general decrease. Caregivers reported a significant reduction in internalising behaviours on the CBCL after GnRHa.</p>
<p>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 Carmichael, P., Butler, G., Masic, U., Cole, T.J., De Stavola, B.L., Davidson, S., Skageberg, E.M., Khadr, S., Viner, R.M. (2021) https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0243894</p>	<p>Study investigating the short-term outcomes of puberty suppression. It was an uncontrolled prospective observational study of GnRHa as monotherapy in 44 youths with persistent and severe GD. Pre-specified analyses were limited to key outcomes: bone mineral content/density and psychological functioning (measured using scans, scales questionnaires, parent/self-reports and interviews) BMD increased with treatment in the lumbar spine and was stable at the hip, and BMD z-score fell consistent with delay of puberty. There were no psychological function changes, Most participants reported positive or a mixture of positive and negative life changes on GnRHa. Anticipated adverse events (e.g. side effects) were common. At the end of the study one ceased GnRHa and 43 elected to start cross-sex hormones. Overall patient experience of changes on GnRHa treatment was concluded as positive. but larger and longer-term prospective studies using a range of designs are needed to more fully quantify the benefits and harms of pubertal suppression in GD.</p>
<p>Retraction Note: Rapid Onset Gender Dysphoria: Parent Reports on 1655 Possible Cases. Diaz, S., Bailey, J.M. (2023) https://link.springer.com/article/10.1007/s10508-023-02576-9</p>	<p>Study investigating the explanation for the increase in GD as being a socially contagious syndrome: Rapid Onset Gender Dysphoria (ROGD). It uses results from a survey of parents who contacted the website ParentsofROGDKids.com because they believed their child had ROGD. Results focused on 1655 children whose gender dysphoria reportedly began between ages 11 and 21 years. Pre-existing mental health issues were common, and youths with these issues were more likely than those without them to have socially and medically transitioned. Parents reported that they had often felt pressured by clinicians to affirm their child’s new gender and support their transition. According to the parents, mental health deteriorated considerably after social transition.</p>

<p>Regret after Gender-affirmation Surgery: A Systematic Review and Meta-analysis of Prevalence</p> <p>Bustos, V.P., Bustos, S.S., Mascaro, A., et.al (2021)</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8099405/</p>	<p>Study looking into regret rate of those having had gender affirming surgery. A systematic review and meta-analysis which included 27 studies / 7928 patients concluded that there is an extremely low prevalence of regret in transgender patients after GAS (less than 1%).</p> <p>The authors acknowledge that there is high subjectivity in the assessment of regret and lack of standardised questionnaires, which highlight the importance of developing validated questionnaires in this population.</p>
<p>Children and adolescents in the Amsterdam Cohort of Gender Dysphoria: trends in diagnostic- and treatment trajectories during the first 20 years of the Dutch Protocol</p> <p>van der Loos, M.A.T.C., Klink, D.T., Hannema, S.E., Bruinsma, S., Steensma, T.D., Kreukels, B.P.C., Cohen-Kettenis, P.T., de Vries, A.L.C., den Heijer, M., Wiepjes, C.M. (2023)</p> <p>https://pubmed.ncbi.nlm.nih.gov/36763938/</p>	<p>Study looking into trends in diagnosis treatment paths in children and adolescents who were referred for evaluation of gender dysphoria and/or treated following the Dutch Protocol. It is based on a retrospective cohort of 1766 children and adolescents in the Amsterdam Cohort of Gender Dysphoria. They found that a substantial number of adolescents did not start medical treatment. In the ones who did, risk for retransitioning was very low, providing ongoing support for medical interventions in comprehensively assessed gender diverse adolescents. The authors concluded that trajectories in diagnostic evaluation and medical treatment in children and adolescents referred for gender dysphoria are diverse. Initiating medical treatment and need for surgical procedures depends not only on personal characteristics but societal and legal factors as well.</p>
<p>Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care</p> <p>Tordoff, D.M., Wanta, J.W., Collin, A., Stepney, C., Inwards-Breland, D.J., Ahrens, K. (2022)</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8881768/</p>	<p>Study of 104 trans and non-binary youths: 69 received PBs or GAHs or both, 35 received no treatment. The treatment route was associated with 60% lower odds of moderate or severe depression and 73% lower odds of suicidality but no significant change in anxiety over a 12-month follow-up. The study used a health questionnaire and an anxiety scale to assess changes.</p>
<p>Systematic Review: Puberty suppression with GnRH analogues in adolescents with gender incongruity</p>	<p>Study reviewing the treatment of gender incongruity with GnRHa analogues. 11 articles published between 2009 and 2019 which studied transgender adolescents treated with GnRHa were selected. It assessed psychosocial effects, bone health, body composition and</p>

<p>Ramos, G. G. F., Mengai, A. C. S., Daltro, C. A. T., Cutrim, P. T., Zlotnik, E., Beck, A. P. A. (2020)</p> <p>https://link.springer.com/article/10.1007/s40618-020-01449-5</p>	<p>metabolism, and therapy persistence. The use of GnRHa seems to be well tolerated by the studied population. When started in pubertal transition, it was associated with a more distinct resemblance to body shape than to the affirmed sex. In addition to preventing the irreversible phenotypic changes that occur in cross-hormonal therapy, the use of GnRHa can equally contribute to the mental health of these adolescents. However, the authors also point out that long-term effects of hormone therapy on psychosocial health are unknown. GnRHa treatment delays bone maturation and gain in bone mineral density. GnRHa treatment in children with gender dysphoria should be considered experimental treatment of individual cases rather than standard procedure.</p>
<p>Low Bone Mineral Density in Early Pubertal Transgender/Gender Diverse Youth: Findings From the Trans Youth Care Study</p> <p>Janet Y. Lee, Courtney Finlayson, Johanna Olson-Kennedy, Robert Garofalo, Yee-Ming Chan, David V. Glidden, Stephen M. Rosenthal (2020)</p> <p>https://doi.org/10.1210/jendso/bvaa065</p>	<p>To examine Bone Mineral Density (BMD) in early-pubertal transgender youth. 63 participants were studied, and BMD was found to be lower than reference standards This lower BMD may be explained, in part, by suboptimal calcium intake and decreased physical activity.</p>
<p>Factors Associated With Desistance and Persistence of Childhood Gender Dysphoria: A Quantitative Follow-Up Study</p> <p>Steensma, T.D., McGuire, J.K., Kreukels, B.P., Beekman, A.J., Cohen-Kettenis, P.T. (2013)</p> <p>https://www.transgendertrend.com/wp-content/uploads/2017/10/Steensma-2013_desistance-rates.pdf</p>	<p>Study examining the factors associated with the persistence of childhood gender dysphoria (GD), and to assess the feelings of GD, body image, and sexual orientation in adolescence. The sample consisted of 127 adolescents (79 boys, 48 girls), who were referred for GD in childhood and followed up in adolescence. They examined childhood differences among persisters and desisters in demographics, psychological functioning, quality of peer relations and childhood GD, and adolescent reports of GD, body image, and sexual orientation. They examined contributions of childhood factors on the probability of persistence of GD into adolescence. They found a link between the intensity of GD in childhood and persistence of GD, as well as a higher probability of persistence among natal girls. Psychological functioning and the quality of peer relations did not predict the persistence of childhood GD. The support of children with GD may need to be</p>

	developed independently for natal boys and for girls.
<p>Brain Maturation, Cognition and Voice Pattern in a Gender Dysphoria Case under Pubertal Suppression</p> <p>Schneider, M. A., Spritzer, P. M., Soll, B. M. B., Fontanari, A. M. V., Carneiro, M., Tovar-Moll, F., Costa, A. B., da Silva, D. C., Schwarz, K., Anes, M., Tramontina, S., Lobato, M. I. R. (2017)</p> <p>https://doi.org/10.3389/fnhum.2017.00528</p>	<p>Study of the effects of puberty suppression on the brain white matter (WM) during adolescence. WM Fractional anisotropy, voice and cognitive functions were assessed before and during the treatment. MRI scans of a pubertal transgender girl were acquired before, and after 22 and 28 months of hormonal suppression. Brain white matter fractional anisotropy remained unchanged in the GD girl during pubertal suppression with GnRHa for 28 months, which may be related to the reduced serum testosterone levels and/or to the patient’s baseline low average cognitive performance. Global performance was slightly lower during pubertal suppression compared to baseline, predominantly due to a reduction in operational memory. Either a baseline of low average cognition or the hormonal status could play a role in cognitive performance during pubertal suppression. The voice pattern during the follow-up seemed to reflect testosterone levels under suppression by GnRHa treatment.</p>

https://explore.bps.org.uk/binary/bpsworks/bf9d9fead1dfec7c/3acfadee810a324dde720ea7b34b6e87a80cad1de5471be0810935dac0415b/inf94_2021.pdf

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