COMENIUS UNIVERSITY IN BRATISLAVA
FACULTY OF MATHEMATICS, PHYSICS AND INFORMATICS

Exploring the Apparent Rise in Misaligned Gender Identity in Adolescent Females through the Lens of Psychiatrization

Diploma Thesis

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Annotation: Since at least the latter part of the 20th century, there has been increasing scientific, philosophic, and public interest in identity specifically in relation to gender. Understandings of gender identity vary greatly across time, discipline and social context, and disagreements often result in controversy.

Aim:
1. Survey historic and contemporary definitions of gender identity.
2. Study the evidence base for medicalisation of gender identity in minors, and discuss the ethics thereof.
3. Investigate current trends in gender identification among youth populations, and explore to what extent this may be driven by a process of psychiatrisation of gender non/conformity.

Literature:
Beeker T. et al. (2021) Psychiatrization of Society: A Conceptual Framework and Call for Transdisciplinary Research. Frontiers in Psychiatry, https://doi.org/10.3389/fpsyt.2021.645556.
Littman L. (2019) Parent Reports of Adolescents and Young Adults Perceived to Show Signs of a Rapid Onset of Gender Dysphoria. Yearbook of Paediatric Endocrinology, https://doi.org/10.1530/ey.16.6.13.
Bakker J. (2024) Neurobiological Characteristics Associated with Gender Identity: Findings from Neuroimaging Studies in the Amsterdam Cohort of Children and Adolescents Experiencing Gender Incongruence. Hormones and Behavior, 164, 1-10, https://doi.org/10.1016/j.yhbeh.2024.105601.

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Názov: Exploring the apparent rise in misaligned gender identity in adolescent females through the lens of psychiatrisation
Skúmanie zjavného nárastu nesprávnej rodovej identity u dospievajúcich dievčat optikou psychiatrizácie

Anotácia: Najneskôr od druhej polovice 20. storočia narastal vedecký, filozofický a verejný záujem o identitu, najmä vo vzťahu k rodu. Chápanie rodovej identity sa výrazne líši v závislosti od času, disciplíny a sociálneho kontextu a nezhody často vedú k kontroverziám.

Cieľ:
1. Preskúmajte historické a súčasné definície rodovej identity.
2. Preštudujte si dôkazovú základňu pre medikalizáciu rodovej identity u maloletých a diskutujte o jej etike.
3. Preskúmajte súčasné trendy v rodovej identifikácii medzi mládežou a preskúmajte, do akej miery to môže byť spôsobené procesom psychiatrizácie rodovej ne/konformity.

Literatúra:
Beeker T. et al. (2021) Psychiatrization of Society: A Conceptual Framework and Call for Transdisciplinary Research. Frontiers in Psychiatry.
Littman L. (2019) Parent Reports of Adolescents and Young Adults Perceived to Show Signs of a Rapid Onset of Gender Dysphoria. Yearbook of Paediatric Endocrinology.
Bakker J. (2024) Neurobiological Characteristics Associated with Gender Identity: Findings from Neuroimaging Studies in the Amsterdam Cohort of Children and Adolescents Experiencing Gender Incongruence. Hormones and Behavior, 164, 1-10.

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George McClelland

Diploma Thesis

FACULTY OF MATHEMATICS,
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Bratislava, 2025 George McClelland

Declaration:

I hereby confirm that this thesis is my own work, and ideas and quotations from elsewhere are cited accordingly.

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I would like to thank Prof. Tomaskova for her trust, patience and insight;
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Abstract

Issues of personal identity have long been a topic of philosophical discussion. Since at least the latter part of the twentieth century, there has been increasing scientific, philosophic, and public interest in identity specifically in relation to gender. Understandings of gender identity vary greatly across time, discipline and social context, and disagreements often result in controversy.

At the sane time, efforts have been made to provide care people who, for a number of reasons, feel that their gender identity is out of step with their sex. This care takes a range of forms and often involves a host of medical technologies.

A lowering of the age at which this care is provided within the last decade or so has coincided with exponential increases in diagnoses and treatments for psychological conditions related to gender identity amongst children and adolescents globally.

This thesis therefore aims to survey historical and contemporary conceptualisations of gender identity, and explore the relationship between identity and social, medical and scientific institutions.

Keywords: gender identity, psychiatrization, bioethics

Abstrakt

Otázky osobnej identity sú dlhodobou témou filozofických diskusií. Prinajmenšom od druhej polovice dvadsiateho storočia narastá vedecký, filozofický a verejný záujem o identitu, najmä vo vzťahu k rodu. Chápanie rodovej identity sa výrazne líši v závislosti od času, disciplíny a sociálneho kontextu a nezhody často vedú k kontroverziám.

Zároveň sa vynakladá úsilie poskytnúť starostlivosť ľuďom, ktorí z rôznych dôvodov cítia, že ich rodová identita nie je v súlade s ich biologickým pohlavím. Táto starostlivosť má rôzne podoby a často zahŕňa množstvo lekárskych technológií.

Zníženie veku, v ktorom je táto starostlivosť poskytovaná, v poslednom desaťročí či dvoch sa zhoduje s exponenciálnym nárastom diagnóz a liečby psychologických stavov súvisiacich s rodovou identitou u detí a dospievajúcich na celom svete.

Táto práca si preto kladie za cieľ preskúmať historické a súčasné koncepcie rodovej identity a preskúmať vzťah medzi identitou a sociálnymi, lekárskymi a vedeckými inštitúciami.

Kľúčové slová: rodová identita, psychiatrizácia, bioetika
[Translated with Google]

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PART 1: Background

On 23 August 2024, a federal court in Australia ruled on a court case that hinged on the definition of the words *woman* and *sex*. In handing down his ruling in the case *Tickle vs. Giggle*, Justice Robert Bromwich ruled that the claimant, Roxanne Tickle, a male who identifies as a woman and was denied access to a women only app, *Giggle for Girls*, had been discriminated against on the basis of gender identity. In summarising the arguments of the losing side, the judge stated:

> They claim that Ms Tickle was discriminated against on the basis of her sex, which they consider to be male, not her gender identity. They consider sex to mean the sex of a person at birth, and that this is unchangeable.
>
> Those arguments failed, because the view […] conflicted with a long history of cases decided by courts going back over 30 years. Those cases establish that, on its ordinary meaning, sex is changeable (Bromwich 2024: 3)

On 16 April 2025, less than eight month later, the Supreme Court of the United Kingdom also ruled on a court case that hinged on the definition of the word *woman*, this time deciding unanimously in the case *For Women Scotland Ltd v The Scottish Ministers*, that the “the ordinary meaning of those plain and unambiguous words [...] are assumed to be self-explanatory and to require no further explanation […] terms woman and sex in the *Equality Act 2010* refer to a biological woman and biological sex” (Sedghi 2025).

How can the law in two countries with a shared language and similar cultures, politics and legal systems arrive at such diffing conclusions about the definition of such a fundamental concept? Simply put, this discrepancy boils down to what is understood by the terms *sex* and *gender*, specifically *gender identity*, and the relationship between the two, if any.

In recent decades there has been increasing cultural, political and academic interest across the Western world in topics revolving around gender identity. To some, the term *gender* is used synonymously and interchangeably with the term *sex*[1], while for others gender is related to sex, but not entirely overlapping with it, while for still others the two terms are entirely independent of one another. These debates are often highly emotive and contentious, at times resulting in court cases (Bettiza 2024), employment tribunals (BBC 2022), and even contributing to the fall of governments (Cook 2023). At their core, many of these disputes revolve around disparate understandings of the terms *gender* and *sex*, and which definition of which concept should be foundational to related definitions of fundamental everyday concepts such as man/woman, father/mother, male/female, boy/girl.

A key aim of this thesis therefore is to make the case that gender identity – or rather claims that gender identity is a preferable alternative to sex in structuring social institutions and medical treatment – is an interesting topic for investigation in cognitive science, as these claims touch upon some of the core pillars of cognitive science such as neuroscience; the philosophy of the mind; and psychology, and that the methods of cognitive science might therefore be able to shed some light on these debates.

. Firstly, this thesis will look at the origin, development and current usages of the concept of gender identity and related terms across theoretical frameworks, before focusing on one aspect in particular which seems to be a recent and rather under-explored phenomenon, namely the dramatic global increase in young people with a seeming mismatch between their sex and their gender identity.

Sex, Gender, and Gender Identity

The term *gender identity* was first coined by the psychologists Robert Stoller and Ralph Greenson in the mid 1960s (Stoller 1964), and later popularised by John Money – himself the coiner of the earlier term, *gender role* (Money et al. 1955). Both parties were clinically engaged with patients with “intersex” conditions (then often termed *hermaphroditism*), and it was in this context that many of today’s gender-related terms were first conceived (although, as will be explored, many of the concepts behind them have dramatically shifted).

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[1] for the purposes of this paper the term is used in the biological sense, unless otherwise stated

In its original usage, gender identity was inexorably tied to sex and effectively meant "sex identity": "[g]ender identity is the sense of knowing to which sex one belongs, that is, the awareness 'I am a male' or 'I am a female'" (Stoller 1964: 220). It is an apparent fluke of the English language that required the word *gender* to fill in for *sex* here. As the word *sex* began to undergo a semantic shift from simply "reproductive type" towards "the act of sexual intercourse" itself, the euphemistic use of the word *gender* grew in popularity as a direct synonym (Etymonline), one that helped reduced sniggers from the young and immature.

Indeed, it was for this very reason that Stoller opted for the term in his coinage of gender identity, believing the alternative of sexual identity to be evocative of sexuality rather than what would have in earlier centuries have been understood by sex: "[t]he advantage of the phrase 'gender identity' lies in the fact that it clearly refers to one's self-image as regards belonging to a specific sex" (Stoller 1964: 220). So in the original definition, *gender* was used instead of *sex* merely to remove the growing ambiguity around the latter, but not to fundamentally separate the concepts from one another. Ironically enough, this choice would contribute to the ambiguity inherent in the term *gender* today, as from these two once synonymous words began to emerge diverging underlying concepts.

Early usages of the *gender* in academic literature (in the non-grammatical sense) were confined almost explosively to those derived in some way from Money's *gender role*, and were primarily works of psychology dealing with individuals who deviated in some way from the societally prescribed gender role of their sex (Haig 2004: 92). Beginning in the 1970s however, *gender* began to be adopted in feminist scholarship as a way to talk about differences between women and men as groups that were, in their view, culturally rather than biologically determined (Haig 2004: 93).

The birth of the modern concept of gender can be seen as the coalescing of these two parallel strands of academia: "[b]ecause a person's sex could differ from their gender role, gender became associated with a blurring of the male/female dichotomy, and the claim that upbringing trumped anatomy provided a powerful argument against the essential nature of sex differences" (Haig 2004: 93).

A rather crude overview of the competing terms can be seen in [Fig. 1], which nonetheless gives some insight into the interplay between them, with the use of *sex differences* rising steadily throughout the twentieth century, reaching it's peak just as *gender differences* begins to emerge and quickly outpace *sex differences* as the preferred collocation:

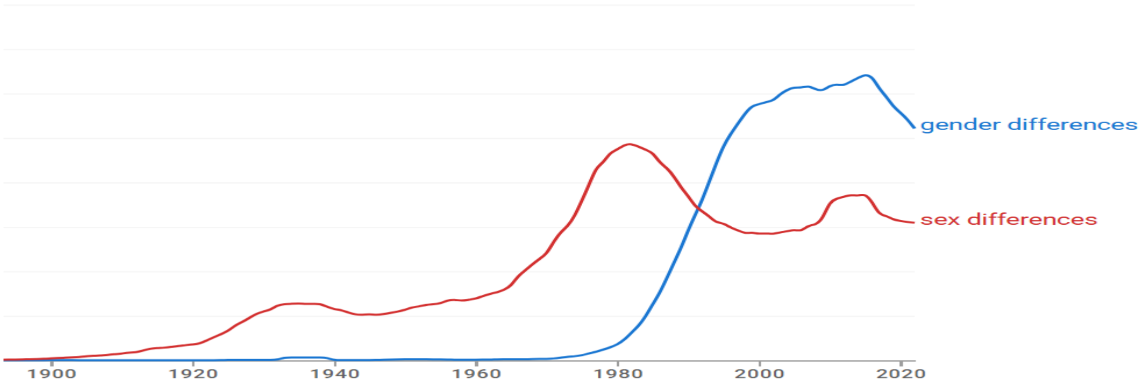

Figure 1: Google Ngram for the collocations *sex*- and *gender differences* (Google: 2025).

The same pattern can be seen in the much more targetted analysis undertaken by Haig [Fig. 2] of the competing terms in academic literature, where *gender* came to be preferred even in scientific writing.

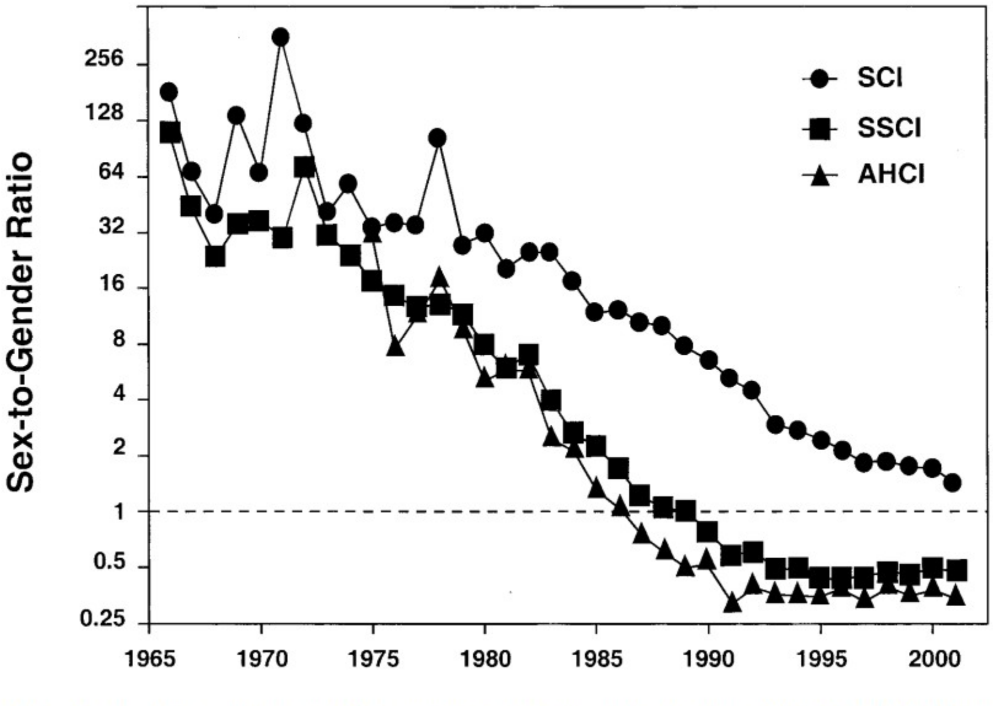

Figure 2: The original description reads "The ratio of titles containing sex to titles containing gender for all articles in the Science Citation Index (SCI), Social Sciences Citation Index (SSCI), and the Arts & Humanities Citation Index (AHCI)" (Haig 2004: 89).

A related sense in which the word *gender* was used is also important for the current discussion, in which sex and gender were not synonymous, but more or less completely overlapping concepts. Dominant in the social sciences, this usage saw gender as essential just the social analogue of the biological word sex, without much thought of a distinction between the two (Udry 1994).

Returning to gender identity, Stoller originally conceptualised it as determined by three factors: the first of which being anatomical (i.e. visible genitalia). The second was socialisation, i.e. whether an individual is perceived to be a boy or girl by peers and caregivers, and therefore treated as such by the standards of the specific cultural context. The third factor he terms an invisible "biological force" driving gender identity. Stoller considered the second of these to be the most powerful, noting that in his experience from working with patients born with ambiguous genitalia, it was how a child was raised, rather than their actual sex, that had the biggest influence upon their gender identity (1964: 220). In other words, in the absence of the first of these factors (visible male or female genitalia), the second factor (socialisation as a boy or girl) is more determinant of gender identity than the third factor (whether one is male or female).

Stoller and Money saw these "intersexed persons" as a "natural experiment" to isolate these three variables from one another, with Stoller reporting that when a child's sex is misidentified as birth: "[t]here is no acceptable evidence in the reported cases that the latent genetic and biological forces exert any influence; the processes of psychological childhood development suffice to explain the resulting gender identity" (ibid.: 220). Effectively, in his view, it was all socialisation. His inclusion of the "biological force" in the equation was however motivated by some of his patients who he saw as "rare individuals" for whom this "force" seemed to override their socialisation. Money was a much more strident proponent of social conditioning giving rise to sex differences in behaviour and treatment (Money et al. 1955), but for Stoller gender identity resulted in most instances from the genitals, socialisation and biological force moving in the same direction, and primarily from socialisation when the genital signal was interrupted somehow.

Given that a person is not born with a schematic representation of how the platonic set of male and female genitals should look, it might at first seem strange that this should occupy such a central place in the formation of gender identity, separated as it is by Stroller from both social influence and biological force. Stoller's original concept was heavily informed by Freudian psychoanalysis (and seemingly his own maleness), however, and the genitals were seen as driving both the external and internal determining factors of gender identity:

> By their 'natural' appearance, the external genitalia serve as a *sign* to parents that the ascription of one sex rather than the other at birth was correct. Then too, by the production of sensation, the genitalia, primarily from external structures but in females additionally and dimly from the vagina, contribute to a part of the primitive body ego, the sense of self, and the awareness of gender (1964: 223)

The first of the two case studies presented by Stoller as an illustration of gender identity concerns a child who was perceived to be female at birth, and raised unquestioningly as such for the first 14 years of life until the development of male typical secondary sex characteristics at the onset of puberty. This prompted a series of physical and chromosomal tests which indicated the child was in fact a genetic male, albeit with anatomical underdevelopment (1964: 221-222).

It is apparent from reading the article in which Stoller's original definition appears that sex-based expectations of behaviour were very different than today. From his reports of the parents' discomfort with their child not conforming to the sex-based stereotypes of the time and place, it is clear that both the mother's evaluation of her child's behaviour, as well as Stoller's own evaluation of the mother's behaviour, are highly "gendered" – i.e. derived from their sex-based expectations:

> The baby was active and forceful, while her mother, a graceful, feminine, neurotically masochistic, perfect 'lady' increasingly despaired because her daughter was so lacking in gentleness and so much in opposition to many of the feminine qualities the mother wanted to bring forth from her daughter (1964: 221)

Upon learning their actual sex, the apparent ease with which the child subsequently conformed to their newfound male designation was an indication for Stoller that the child's "biological force" was already steering them, albeit unconsciously, towards a male gender identity despite everyone, child included, believing them to be female (ibid.: 222).

Stoller explicitly sought to separate gender identity from perceived masculinity or femininity: "of a patient who says: 'I am not a very masculine man', it is possible to say that his gender identity is male although he recognizes his lack of so-called masculinity" (1964: 220), instead restricting the concept to a high level conceptual understanding of being male or female. Already from his first example, however, gender identity seems to be gaugeable by how much an individual conforms to or deviates from sex-based stereotypes. It is unclear the utility of internalising this as gender identity, rather than seeing it as behaviours that are deemed externally to be "gendered" by others.

As became clear in Stoller's case study, whether or not the subject had a gender identity of a boy, they simply were, in fact, a boy. That the child was seen as a girl while their behaviour was seen as "boyish" relies on the existence of sex-based stereotypes in behaviour. These in turn, it was seen, must be explained psychologically when not adequately met. What the example illustrates is that it was less their socialisation and more their biologically modulated predilections which was influencing their behaviour. The interplay of these two elements makes up Stoller's unconscious gender identity in childhood where: "[i]n some the biological is stronger and in others weaker" (ibid: 225).

In situating the individual in relation to their social environment, Stoller attempts to provide a glimpse into the societal forces pushing against what he sees as a developing (male) gender identity: "[t]he hopelessness produced [for the mother] was only partly eased by three subsequent babies, two boys and a girl, all of whom had intact gender identities." (ibid. 222). From this description of the siblings' "intact gender identities" it can be inferred that, for Stoller, 1) internal gender identity is measurable by external gender expression (how one behaves more like a male or more like a female), 2) that it's binary and exists in relation to sex (being "intact" if aligned with one's sex), and 3) that everyone develops a gender identity (including the anatomically "normal" siblings).

Current conceptualisations of gender identity differ significantly along these three facets, as will be explored in the following sections. Another aspect of Stoller and

Greenson's original definition is that gender identity develops in early childhood and is then essentially fixed:

> By the time of the phallic stage, an unalterable sense of gender identity—a core gender identity ('I am male', 'I am female')—has already been established in the normal person. While later, as a result of conflict, the boy may have doubts about his maleness or even may say 'I wish I were female', this still implies that he knows he is male but would rather it were otherwise. (ibid: 223)

The introduction of this "core" gender identity already opens up the door to other forms of gender identity outside the basic definition of simply knowing to which sex one belongs, although it is less clear exactly what Stoller therefore envisaged were the "changeable" parts outside of this core, if not simply how masculine or feminine one felt or behaved: "[t]hus we can say that the *core* gender identity remains unchanged throughout life; this is not to say that gender identity is not constantly developing and being modified, but only that at the core the awareness of being either a male or female remains constant" (ibid: 223).

Cognitive theories of gender identity

From the late 1960s, cognitive theorists began to study gender identity and their research focused primarily on early childhood development. Cognitive theories began to conceptualise gender identity as a psychological construct developed to make sense of the highly sex-based social- and material world that an infant interacts with. Although drawing on Stoller's concept, cognitive theories of gender identity tended to emphasise the impact of learning from the environment which are not only driven by how the child is treated by others.

In line with Piaget's developmental stages model which it extended, Lawrence Kohlberg's model focused on 3 developmental stages of gender constancy that are more or less in line with other non gender related cognitive stages. His adoption of the word gender seems motivated by similar reasons to Stoller and Money, and essentially meant sex: "children's recognition that there are two gender groups and that they belong to one of them" (Martin & Ruble 2004: 68).

For Kohlberg, gender identity was not much more than the first step towards a more complex cognitive understanding of how sex shapes the social and physical world of themselves and those around them, with the end stage being full gender constancy. Gender constancy refers to a higher order awareness that gender (sex) is fixed and unchanging over a lifetime and not altered by changes in appearance, and develops around the same age as other forms of cognitive constancy.

Before this final stage, children often mistake more superficial cues such as clothing, hairstyle or other socially stipulated identifiers of gender as fixed determinants of sex. So strong is their association during this period before constancy, that a child believes that dressing in a way or performing actions they associate with the opposite sex actually makes them the opposite sex (Kohlberg 1966).

Within this paradigm there is a distinction between the "cognitive understanding" of gender as an abstract concept of gender and the "phenomenological experience" of gender identity (Katz 1986: 33), with the former usually conceived of as preceding the latter. Katz points to sex-differentiated stimulus cues in an infant's environment across all senses (smell, pitch of voice, relative size, smoothness of skin etc.) that likely contribute to an infants emergent categorisation of sex before application to the self (ibid.: 34). This is indicated by the miss application of the earliest words, "mama" and "dada", to other adults of the appropriate sex (ibid.: 35).

Before development of gender identity around the age of 3, the child is actively engaged in motivated learning about differences and the formation of categorisations and stereotypes. Once gender **identity** is developed, the following stage – **stability** – involves a consolidation of gender knowledge into a quite fixed deterministic understanding of potentiality of group members along gender lines, reaching "peak rigidity" around the ages of 5-6. As the child develops a sense of **constancy** during the third stage they come to understand that appearance and behaviours have no impact on their own or others' sex, the boundaries between what the child considers to be acceptable and possible are loosened substantially, and gendered expectation becomes more fuzzy by the age of 7 or 8 (Martin & Ruble 2004: 68). These stages follow a general pattern which correspond roughly to Piaget's first three developmental stages of sensorimotor, preoperational and concrete operational as more high-level conceptualisations are made.

An important aspect of Kohlberg's theory is that conformity to gender has moral value for the child, in this way maintaining a positive self-attitude in as much as they perceive of themselves as conforming to their gender identity, and conversely non-conformity has immoral valance for the child (1966: 113).

For Kohlberg, specific gender identity is not in itself determined by a biological mechanism, rather through the application of general cognitive processes to a universally sex-differentiated social world, cross-cultural similarities in gender identity are produced:

> [the] patterning of sex-role is essentially 'cognitive' in that it is rooted in the child's conceptions of physical things, the bodies of himself and of others, as he relates body concepts to his conceptions of a social order which makes functional use of sex categories in quite universal ways. Rather than biological instinct, it is the child's cognitive organization of social role concepts around universal physical dimensions that account for the existence of universals in sex-role attitudes (Kohlberg 1966: 82)

Thus, the child does not have an innate sense of its own sex, but rather an emergent sense of sex categories to which itself and others belong. Although there is variation in the precise age at which children reach each milestone, the basic stages of gender constancy have been validated cross culturally by numerous experiments (Martinez et al. 2020: 2).

From this cognitive perspective, early gender identity regulates the child's understanding of a gendered world, which in turn reinforces the identity further: "“I am a boy, therefore I want to do boy things, therefore the opportunity to do boy things (and to gain approval for doing them) is rewarding”" (Kohlberg 1966: 89). This is a sequence that Kohlberg contrasts with the dominant behaviouralist paradigm of the day which supposed a heavier influence of external socialisation on a more or less blank slate-minded infant: "“I want rewards, I am rewarded for doing boy things, therefore I want to be a boy”" (ibid.: 89). For Kohlberg then, boys and girls tend to identify with and model themselves upon older males and females because they are already inclined towards those interests and behaviours, rather than vice versa (ibid.: 134).

Once gender identity is formed, it begins to actively shape a child's cognitive growth:

> Gender identity develops as children realize that they belong to one gender group, and the consequences include increased motivation to be similar to other members of their group, preferences for members of their own group, selective attention to and memory for information relevant to their own sex, and increased interest in activities relevant to their own sex (Martin & Ruble 2004: 67).

As can be seen from the above quotation, the terms gender and sex are used in subtly complimentary ways to describe two aspects – social and material – of a child's world. Gender was often conceived of as the social mapping onto sex, with the two terms being used to distinguish between the objective material world and the developing framework of culturally significant distinctions which a child makes based on their understanding of these categorisations.

Kohlberg's theory is an embedded one, in that its primary focus is on the interaction between the individual (with its evolving cognitive abilities) and the social and material environment which shapes how the cognition develops. In this way it is neither solely the underlying biology of the individual, nor the external socialisation or sex-differentiated cues from the environment, rather the iterative interaction between the two which gives rise to a sense of gender identity.

He was however keen to avoid discussion of the respective contribution of each, both in general and for any specific individual: "[t]he critical theoretical issue here is the conception of the basic source of patterning in sexual attitudes, not the quantitative contribution of the factors that may influence or deflect this pattern in individual cases" (Kohlberg 1966: 84). Unlike Stoller and Money, whose ideas about gender and identity were formed from studying what they considered to be exceptions – which gave them insight into the rule – Kohlberg was instead interested in gleaning universal patterns from normative development, regardless of the intensity to which any specific individual experienced or displayed the stages. Because of this. the model was not designed to analyse how social or biological factors may up or down regulate the process of development in any one specific case, rather its focus is on the pattern of development itself.

Once this model had become established in child psychology, however, this invigorated the study of perceived variation from the standard model of gender identity development.

PART 2: Trends in diagnosis, treatment and identification

Gender Identity Disorder

The inclusion of gender identity disorder in the 1980 DSM-III (Zucker 2009: 477) marks the first official designation of a "misaligned" gender identity in young children, where it was used to differentiate clinical presentation of distress around gender in pre-pubertal children, as opposed to Transsexualism and Fetishistic Transvestitism diagnoses which were elusively restricted to adolescents and adults.

The criteria for diagnosis included the "strongly and persistently stated desire" to be (or insistence that one was) the opposite sex and "[p]ersistent repudiation of [sex-specific] anatomic structures" (ibid.: 478). Stoller and Money were on the advisory committee and therefore involved shaping the original diagnosis.

These criteria were measured against what was seen as normative childhood development of gender identity, although it has been argued that the increased reliance on behavioural indicators in the diagnosis (especially from DSM-IV on) lead to a conflation of gender identity disorder with mere gender variant behaviour (Zucker 2009: 485), especially in the absence of "anatomical dysphoria"[2] in most children meeting the diagnosis criteria (ibid.: 489). Thus in children, the disorder was most commonly measured by observed dissatisfaction with being categorised by others as the non-desired sex, rather than discomfort with the parts of the body indicative of sex: "[a]lthough children with GID may experience some sense of discomfort with their sexual anatomy [...] the construct of distress is probably better understood [...] in relation to a child's verbalized sense of unhappiness about being a boy or a girl" (ibid.: 490). This conflation has in turn lead to disagreement over whether gender issues should be classified as a disorder at all (Menvielle et al. 2005: 38) and is instead just a pathologising of gender variance.

Accompanying this new diagnosis was the establishment of specialised gender clinics for children and adolescents in the 1970s and 1980s in Canada (1975), the

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[2] i.e. specific stress around the sexed body as opposed to desire/belief that one is the other sex

Netherlands (1987) and the United Kingdom (1989) (Biggs 2022: 349). These clinics would provide counselling, but the medical interventions which were becoming increasingly common for adults who identified as transexual were strictly prohibited before the age of legal maturity (ibid.: 350), and social transition in early childhood was advised against (de Vries & Cohen-Kettenis 2012: 307). This approach to treatment has been characterised as "watchful waiting" (Clayton 2022: 488). In addition to treatment, these clinicians produced a significant amount of research which would form the basis for later developments.

Much of this early research was informed by cognitive theories of gender identity development, whereby children with gender identity disorder followed the usual stages of development, only that they made a mistaken attribution about their own sex in the first stage and formed particularly dogmatic boundaries about permissible behaviours and interests of each gender during the second: "gendered social cognition provides a window into how children with GID [gender identity disorder] construct a subjective sense of self as a boy or as a girl" (Zucker 2012a: 378).

Zucker et al. note the delayed development of gender constancy in children diagnosed with gender identity disorder (2012a: 377), and conclude that regardless of whether this lag can be seen as causing the disorder, the rigidity of thought that it entails doubtlessly perpetuates "cognitive gender confusion" (ibid.: 377-378). They provide a number of examples which illustrate the rigidity of the children's thinking, including "one 7-year-old boy said that [he wanted to be a girl] because he did not like to sweat and only boys sweat. He also commented that he wanted to be a girl because he liked to read and girls read better than boys" (ibid.: 378). For the child, both behaviours and bodily functions are entirely sex-segregated, and their desire to do (or not do) these things indicated to themself where they should belong.

This gendered framework that the child develops is also influenced by their evaluations of their social environment, as seen by an "8-year-old boy [who] commented that "girls are treated better than boys by their parents" and that "the teacher only yells at the boys." His view was that, if he was a girl, then his parents would be nicer to him and that he would get into less trouble at school" (ibid.: 378).

Children also naturally pick up on the high level explanations of adults around them, which they synthesise into their own coherent account of self:

> One 5-year-old boy talked about having a “girl’s brain” because he only liked Barbie dolls [...] he created drawings of his own brain, writing in examples of what made his brain more like a girl’s brain and what made his brain more like a boy’s brain (e.g., when he developed an interest in Lego). Over time, the drawings of the size of his girl’s brain shrunk and the size of his boy’s brain expanded (ibid.: 378).

As can be seen from these qualitative examples, gender distress in young children often arises from their often mistaken attributions of interests and behaviours as belonging exclusively to one sex or another, combined with a discomfort in being seen as belonging in their view to the “wrong” category. At the time, this was seen through Kohlberg’s stages model, as the children still believed that appearance and behaviours determined sex categorisation.

Referrals to these clinics were rare, numbering in the single or low double digits per year in the first decades (Biggs 2022: 350). In addition, persistence rates from childhood into adolescent and adult corresponding gender related diagnoses were remarkably small (Zucker 2012b). The largest follow-up study of males with early onset gender identity disorder to date found that in the absence of medical intervention[3] distress around gender had subsided by adulthood in vast majority of cases (88%) (Singh et al. 2021: 12). Strikingly, homosexuality was a much more common outcome in adulthood (65%) compared to gender dysphoria or transgender-identification (12%). Other follow-up studies from the watchful waiting era put post-puberty persistence rates for clinical gender dysphoria at between 0 and 29%, with a 17% average across studies and comparable levels of homosexuality in the adults at follow-up to that found by Singh et al. (Biggs 2022: 2-3; Steensma et al. 2013a: 582).

Gender affirming care

The gender affirmative model of care stipulates that healthcare professionals take at face value a patient’s self reported gender identity, and treat them as such without further question or investigation (Coleman et al. 2022). In the case of treatment for adults, the

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[3] the boys were assessed in Canada between 1975 and 2009 (Singh et al. 2021: 4), before the wide-scale adoption of gender affirmation (ibid.: 14)

gender affirmative model replaced a model in which medical interventions are held off until thorough talking therapies and a period of social transition ("living as the other sex") had established that the desire to be seen as the other gender was likely to be persistent. A formal diagnosis of gender identity disorder was often also required for access to surgeries and other medical interventions. For minors diagnosed with gender identity disorder, it replaced a treatment model of watchful waiting, whereby all medical intervention was restricted until the age of legal maturity, and even social transition was advised against.

The application of the gender affirmative model to children was pioneered in the early 2000s by clinicians working at youth gender clinics in the Netherlands. The treatment regimen they devised, known as the Dutch Protocol (de Vries & Cohen-Kettenis 2012: 303), as well as the subsequent studies which they produced, became extremely influential in the adoption of an affirmative approach for minors across Europe and the English speaking world. Although they still advised watchful waiting for pre-pubescent children (ibid.: 309), the Dutch clinicians began to see the distress caused by the physical changes of puberty as an indication that medical affirmation of gender identity was required before the age of 16, which was the minimum at the time (ibid.: 301).

These Dutch clinicians conceptualised gender identity as a dualistic misalignment of the mind and body: "there is a contradiction between the genetic, gonadal and genital sex on the one hand, and the brain sex on the other" (Gooren 1993:. 238)[4]. For them, it was also clear that the "sex" of the brain (i.e. the gender identity) should take precedence over the other, embodied forms of sex, which should be brought in line with the brain sex as much as possible through medical and surgical intervention: "we must provide them with reassignment treatment which meets their needs" (ibid.: 238).

Based on clinical trials in where male adults reported dissatisfaction with their ability to "pass" as the opposite sex (i.e. be perceived by those around them as if they were female), it was speculated that due to the effects of androgens on the body during puberty, if it were possible to identify those suitable candidates for sex-reassignment before the effects of puberty had taken hold, puberty could be suppressed and the puberty of the opposite sex could instead be simulated (Smith et al.: 2001: 478).

The Dutch Protocol for treatment of gender distressed minors consists of three stages. In the first stage, at the age of 12 (around Tanner stage 2/3), gonadotropin-releasing hormone agonists (GnRHa) are administered to suppress hormone reception and thereby

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[4] Quoted in (Biggs 2022: 350)

arresting puberty. The second stage is the administration of cross-sex hormones at 16, and the third stage is “sex reassignment surgery” (gonadectomy and vaginoplasty in males, mastectomy, hysterectomy and phalloplasty for females) at the age of 18 (de Vries et al. 2012: 312-314). The protocol stipulates that only children diagnosed with gender identity disorder in early childhood which worsens at the onset of puberty be considered candidates, and that they be otherwise psychologically stable and must have high family support and cohesion (de Vries & Cohen-Kettenis 2012).

Considering that puberty is such a crucial time for the cognitive- (Vijayakumar 2018; Luna et al. 2015; Fuhrmann et al. 2010), social- (van Hoorn et al. 2017; Ellis & Shirtcliff 2016; Blakemore 2008) and biological development of an individual, (Plant & Barker-Gibb 2004; Boehm et al. 2010; Martha et al. 1989), one would expect the suppression of it only to be carried out in the face of overwhelming evidence of beneficial trade-offs. However, puberty suppression was often seen as a reversible “pause button”, giving patients and clinicians time to diagnose whether child “truly” has a gender identity differing from their sex or not: “[w]hen an adolescent is considered eligible for puberty suppression, the diagnostic trajectory is extended, as the puberty suppression phase is still considered diagnostic” (de Vries & Cohen Kettenis 2012: 310).

The implication of using puberty suppression as a diagnostic tool is that given extra time to think, certain children who do not have a gender identity persistently at odds with their body will be able to develop an identity more in line with their sex and continue their natural puberty, whereas those who have a true misalignment will continue to identify with the other sex and be given the opportunity to avoid developing secondary sex characteristics which will cause distress in adulthood (i.e. continue with the full protocol). The logic of this rationale is somewhat undermined by the outcomes however.

Across four studies following the Dutch Protocol, 96-98% of children prescribed puberty blockers went on to cross-sex hormones (Brik et al. 2020: 2613-2614; Carmichael et al. 2021: 1; de Vries et al. 2011: 2; Wiepjes et al. 2018: 4). One plausible argument which could be made is that the selective criteria for the prescription of puberty blockers is so strict that they are given only to those who will grow up to have persistent gender dysphoria in adulthood, and for whom transitioning is the correct course of action. If this were the case, however, then the “time to think” becomes redundant, as only the truly transgender children have already been successfully separated out. This is especially true of the English study, which failed to replicate the positive improvement in mental health described in the Dutch studies, but nonetheless still reported a 98% (43/44) progression onto cross sex hormones (Carmichael et al. 2021: 1). Inclusion requirements in subsequent studies and general clinical practice were also much less stringent.

The data from these trials seems to be reflected in the general clinical population as well, with 93% of the puberty blocked children in the Netherlands going on to cross-sex hormones (as of 2018) (van de Loos et al. 2023: 402), With such high rates of continuation, the use of puberty suppression as a diagnostic tool (de Vries & Cohen-Kettenis 2012; Coleman et al. 2022) to give time to assess whether the child truly has a misaligned gender identity requiring reassignment seems redundant, as almost all do continue.

An alternative explanation could be that the continuation of treatment reflects a form of self-fulfilling prophecy, with delays to the natural development of puberty leading to an increased fear of maturity, adulthood, and sexuality which in turn is seen as requiring further treatment. Under the protocol of watchful waiting (i.e. without medical intervention), children who presented at these youth gender clinics were much more likely to be homosexual as adults than trans-identified (Singh et al. 2021), which was true even from early observations at the Dutch clinics (Cohen-Kettenis & van Goozen 1997).

This trade off was well known to the Dutch clinicians at the time, but avoiding irreversible physical changes of puberty was considered worth the risk of over-treatment:

> Lowering this age[5] might increase the incidence of ‘false positives’, but should also result in higher percentages of individuals who would more easily pass into the cross sex role than if treatment commenced well after the development of secondary characteristics. It may therefore result in a lower incidence of transsexuals with postoperative regrets. This holds especially for male-to-female transsexuals, because beard growth and voice breaking give so many of them a never disappearing masculine appearance (Cohen-Kettenis & van Goozen 1998: 248)

The lasting influence of the Dutch Protocol has been not in the protocol itself, which is often not followed very closely, but rather in the conceptualisation of a “transgender child”

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[5] at which GnRHa‘s are used from 16 to 12

that required medicalisation as early as possible. Since the publication of these studies, the treatment protocol has been adopted by the highly influential guidelines World Professional Association for Transgender Health's Standards Of Care 7 (WPATH SOC) and the Endocrine Society (Cass 2024: 27), which has resulted in the use of puberty blockers at youth gender clinics becoming standard in many Anglophone and European countries. This is despite them having never been licenced for treatment of gender dysphoria in any of these countries (Biggs 2022: 349).

As is reasonably common in clinical trials, the Dutch studies suffer from the general problem of low sample size and lack of control group (McPherson & Freedman 2023). In explaining their influence despite these limitations, Abruzzese et al. content that the findings have undergone "runaway diffusion" – where a seemingly positive result from a small scale experimental practice is taken as definitive proof the regimen's benefit and "escapes the lab" to become implemented at a much wider scale before being more rigorously validated (2023: 675).

Underpinning this near ubiquitous adoption of gender affirmation appears to be a re-conceptualisation of gender identity as being an innate reflection of the sex the child should have been: "[gender affirmation] allows that a child of any age may be cognizant of their authentic identity and will benefit from a social transition at any stage of development (Ehrensaft, 2017: 60). WPATH's SOC 7 lists puberty blockers under "fully reversible interventions" (Coleman et al. 2012: 173) and contents that "[n]either puberty suppression nor allowing puberty to occur is a neutral act" (ibid.: 174). While puberty is framed as negatively impacting both short- and long-term mental health: "functioning in later life can be compromised by the development of irreversible secondary sex characteristics during puberty and by years spent experiencing intense gender dysphoria" (ibid.: 175), the downsides of suppression are exclusively restricted to "concerns about negative physical side effects" (ibid.: 175). In this light, the persistence of gender dysphoria is seen as a foregone conclusion because the child "is trans" and the risks of intervention should therefore only be measured in terms of their side-effects, rather than the necessity of the intervention in the first place.

This conceptual shift became particularly prominent in the United States, potentially influenced by a more consumer based healthcare system. As opposed to the original Dutch clinicians, who were trying to identify the children which would likely grow up to be transgender identifying adults, under the affirmative approach children have “privileged access” (Wren 2014> 277) into their gender identity and should therefore have autonomy over their treatment. Because of this, the role of the clinician is simply to provide the relevant medical information in an accessible way to allow for “informed consent”:

> work begins by explaining, in developmentally appropriate language, that this is not an assessment of whether they “are actually transgender,” as many patients worry; rather this assessment is meant to help them understand the intricacies of pubertal suppression, so that they can make the best decision for themselves (Turban et al. 2024 12-14).

In this way the clinician can maintain their ideological adherence to affirmation of expressed gender identity while at the same time being absolved of any responsibility for any problems which their intervention may later cause.

This stands in stark contrast to earlier practitioners with less definitive understandings of gender identity as rooted innately within the child. For example, Bernadette Wren, Head of Psychology at GIDS at the time, believed that:

> the meaning of trans rests on no demonstrable foundational truths but is constantly being shaped and re-shaped in our social world. Clinicians must be accountable in this process; far from succumbing to a paralysing relativism, the task for clinicians is to be highly attuned to our young clients’ complex narratives and to question our complex investments in the positions we adopt (2014: 271)

As this newer, more rigid conception of gender identity becomes baked into medical institutions, however, its validity as unquestionable truth becomes more entrenched. The National Health Service (NHS) of the UK, for instance, provides guidelines on the collection of data regarding gender identity, which it describes as “a person’s innate sense of their own gender, whether male, female, or non-binary, which may not correspond to the sex registered at birth” (NHS 2023).

Contained within this short definition are a number of metaphysical truth claims which would have likely made very little sense to the vast majority of scientists, medical professionals and laypeople as recently as 15 years prior, but which are taken for granted as scientific knowledge less than half a generation later. Firstly, that gender identity is "innate", i.e. predetermined and immune to societal influence or cognitive development. Secondly, that male and female are gender identities that people "sense" rather than sex classes that people belong to. Thirdly that in addition to binary identities, non-binary gender identity is a meaningful concept. Fourthly, that sex needs qualifying in relation to a bureaucratic act of "registering" rather than being a materially significant category determinable by long established scientific means in all but the smallest number of people. Finally, the implicit supposition that data on gender identity need be meaningfully collected from every patient outright, and not simply managed in cases for which there is an identified need.

Has the scientific understanding of fundamental human nature advanced so far in such a relatively short period of time, or might there be other forces at work belied by this shift in medical practice?

Gender affirmative care for minors: a case of psychiatrization?

In the UK, diagnoses of autism increased from barely three thousand to over sixty-five thousand in the twenty years between 1998 and 2018 (Russell et al 2021: 677), representing a 2100% increase in prevalence in 20 years. By 2024 over two hundred thousand people were on the waiting list for a diagnostic assessment alone (NHS 2024). These figures should be taken context of the collapsing of the separate Asperger's syndrome into Autism Spectrum Disorder in both major diagnostic manuals, as well at the huge variability in referral to diagnosis percentages across the 35 commissioned assessment services country wide from as high as 100% to as low as 18% (Autistica 2024: 15), with the majority of clinics skewing towards the high end for referral to diagnosis, see [Fig. 3].

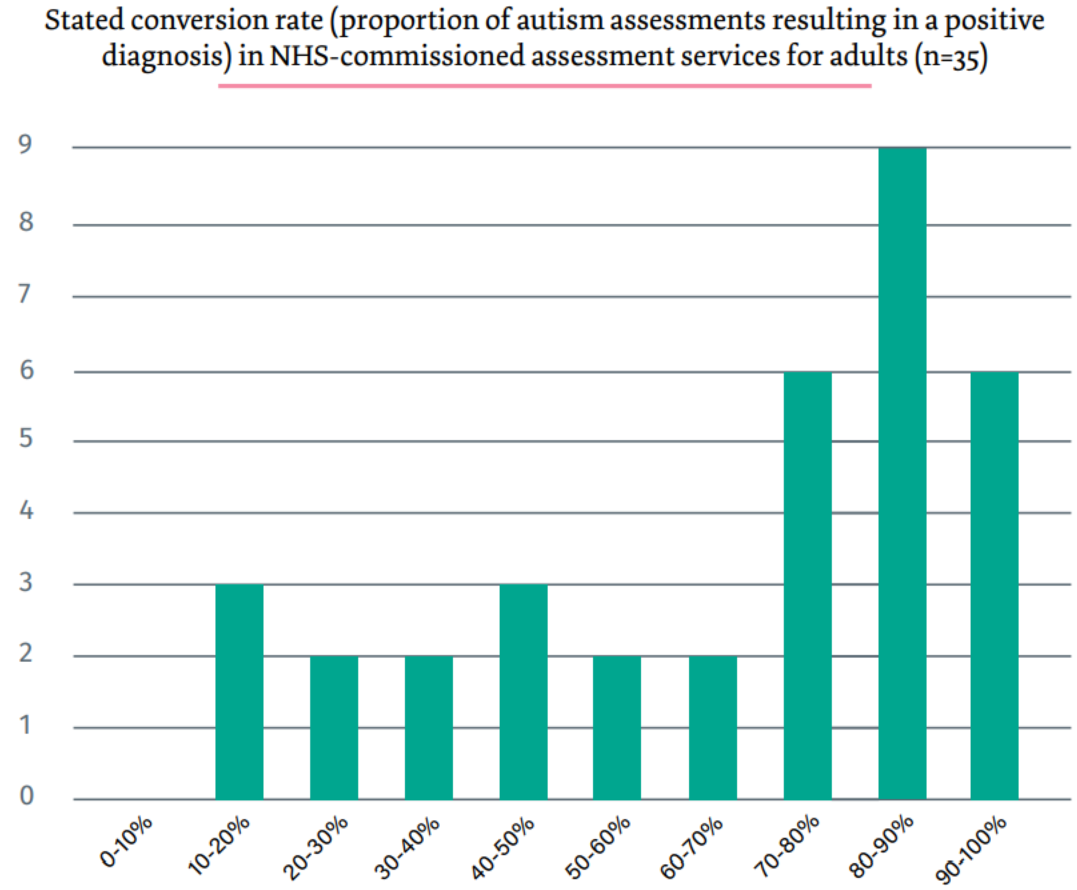

Figure 3: Proportion of assessments resulting in a positive diagnosis of autism across the 35 adult NHS assessment clinics (Autistica 2024: 16).

For comparison, there was no significant increase in schizophrenia in 60 years leading up to 2009 (Kirkbride at al. 2012: 6).

Explanations for such increases are often attributed to increased awareness of psychological conditions in the general public, better understanding among medical professionals and improved diagnostic techniques revealing a truer prevalence rate in individuals who would have previously been underserved, while those sceptical of such these arguments have devised alternative theories. One such alternative model is that such increases represent a “psychiatrisation of society”.

Beeker et al. arrive upon a working definition of psychiatrization as “*a complex process of interaction between individuals, society, and psychiatry* through which psychiatric institutions, knowledge, and practices affect an increasing number of people, shape more and more areas of life, and further psychiatry’s importance in society as a whole” (2021: 3). Far from rejecting the need for psychiatry and related disciplines at all, rather they contend that through processes such as diagnostic inflation and agents such as pharmaceutical companies, concepts and accompanying treatments from these disciplines have a tendency to expand into contexts where they may be at best unhelpful and at worse actively harmful (ibid.: 6).

They explore the interplay between mutually reinforcing top-down[6] and bottom-up[7] agents producing and disbursing "psy-knowledge" from the "psy-disciplines" of psychology, psychiatry and psychoanalysis into the wider discourse, which in turn furthers the perceived need for this psychiatric infrastructure in the lives of individuals not necessarily experiencing phenomena beyond a threshold of healthy human range (ibid.: 3-4). A graphical summary of the model is provided in [Fig. 4].

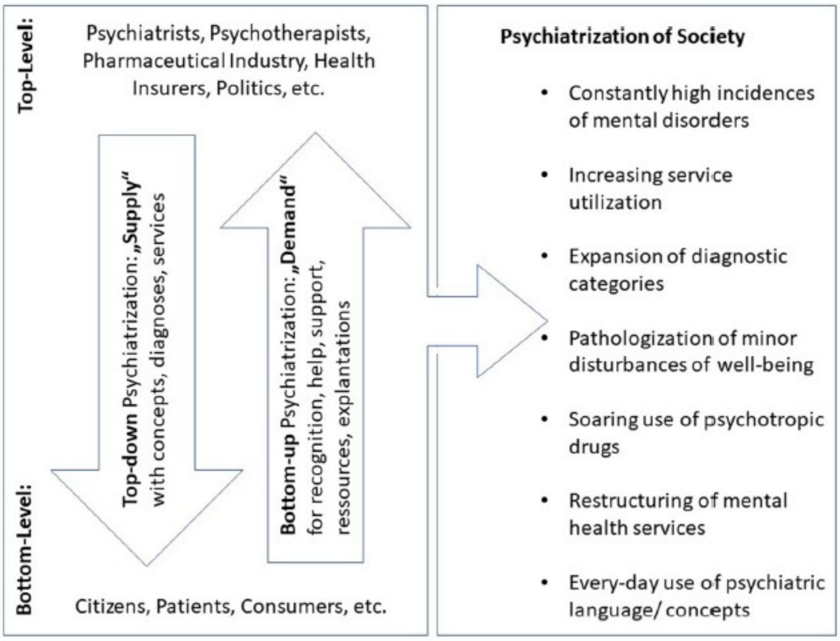

Figure 4: Overview of the pychiatrization framework emphasising how supply and demand perpetuate one another, and the resultant increasing influence on wider society (Beeker et al. 5).

Among the key aspects of the psyciatrization model is the re-framing of standard human characteristics and emotions through a medical lens. It has been contended, for example, that exponential increase in diagnoses of Social Anxiety Disorder, which the US government estimates to affect more than 7% of the population in a given year (NIMH

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[6] Provided examples include psychiatrists, psychotherapists, scientists, politicians, health insurers and the pharmaceutical industry Beeker et al. 2021: 4).

[7] e.g. "people searching for recognition of subjective suffering or difference through clinical diagnosis […] [those] with unspecific "symptoms" […] parents […] [and] advocacy groups trying to raise awareness of certain deseases and stimulate political action in favour of people with specific diagnoses" (ibid.: 6)

2018), constitute a “medicalisation of shyness” (Scott 2006: 134). Another key aspect of psychiatrization is the broadening of diagnostic criteria and the creation of new diagnoses which capture a wider range of experiences not previously considered to be clinically relevant. In the above example this includes Social Phobia and Avoidant Personality Disorder (Scott 2006: 135). With this comes the increased importance of psychiatric institutions such as the American Psychological Association (APA) and the knowledge that they produce, such as the Diagnostic and Statistical Manual of Mental Disorders (DSM). This in turn encourages more people to frame their experiences as deviating from medical normality, which further entrenches the need for psychiatry and increased utilisation of mental health services.

Naturally there are immense benefits to this process, including the increased availability of services for people who need them as well as a reduction in societal stigma associated with significant mental health disorders. At the same time, there are significant downsides to this process, many of which are often overlooked and/or poorly understood.

Some of these potential harms are overdiagnosis and overtreatment (Beeker et al 2021: 2), overestimated expectation of benefits for treatment even when necessary (ibid.: 4), a constriction of what is considered “normality” (ibid.: 7), an increased reliance on psychotropic medication (ibid.: 5), and misallocation of resources (Haslam et at. 2021: 5).

While the explicit label of “psychiatrization” is still in its infancy (see [Beeker et al. 2021: 3] for a condensed history of related research predating the term itself), its wide/ranging scope and multidisciplinary approach nonetheless makes it potentially useful lens to explore the current phenomenon at hand.

Diagnostic inflation

A key component of psychiatrization is diagnostic inflation, whereby the boundaries of a mental disorder are broadened to include presentations not previously included in earlier definitions, and deepened to include less severe presentations that would previously have been considered well below threshold of dysfunction (Haslam 2016: 8).

While a meta analysis found no evidence for overall diagnostic inflation from the DSM-III to the DSM-V across all conditions as a whole (Fabiano & Haslan 2020), this was as a result of a balancing out between equal numbers of disorders which had inflated and those which had deflated (ibid.: 26-27). Substantial diagnostic inflation was identified for specific disorders such as Autism, ADHD, easting disorders and substance abuse (ibid.: 20). It is possible that this has contributed substantially to the exponential increase in diagnoses for these conditions in recent decades (ibid.: 23), as well as the varying rates of diagnoses seen in [Fig. 3]. Indeed, around 90% of these increased diagnoses of these conditions are for mild to moderate presentations (Batstra et al. 2021: 1), a fact also suggested by a preponderance of adult diagnoses for conditions previously almost exclusively diagnosed in childhood (Autistica 2024).

In the DSM-V, the diagnosis gender identity disorder (previously used in DSM-IV) was replaced by gender dysphoria, which is described as a “marked incongruence between one’s experienced/expressed gender and natal gender” (APA 2013). Again here, the word *gender* is used for both gender identity and sex. This diagnosis is associated with clinically significant distress.

The 11th edition of the World Health Organisation’s International Classification of Diseases (WHO ICD) removed this need for distress in their re-classification of gender identity disorder as Gender Incongruence, in part in an effort to de-stigmatise (Robles et al. 2021: 2), WPATH’s SOC 8 preferentially recommends diagnosis of gender incongruence because it allows for medicalisation of gender identity in the absence of a medical condition:

> the diagnosis of Gender Dysphoria focuses on any distress and discomfort that accompanies being TGD [trans and gender diverse], rather than on the gender identity itself. [...] the Gender Incongruence diagnosis [...] focuses on the person’s experienced identity and any need for gender-affirming treatment that might stem from that identity (Coleman et al. 2022: 15)

Gender dysphoria has since come to be the accepted term in reference to both adults and children and is increasingly common in everyday language [Fig.5]. A definition which seems to capture most of the aspects of the modern concept is: “[g]ender dysphoria refers to the distress that may occur when gender identity does not coincide with assigned sex” (Galupo 2021: 101), which will serve as the working definition for the purpose of this paper. There are a few key features captured in this definition, the first being the distinction between an individuals sex on the one hand and how they feel about it on the other. Another crucial feature of this definition is distress, however the addition of the modal *may* allows for the ICD's more broad classification of gender incongruence.

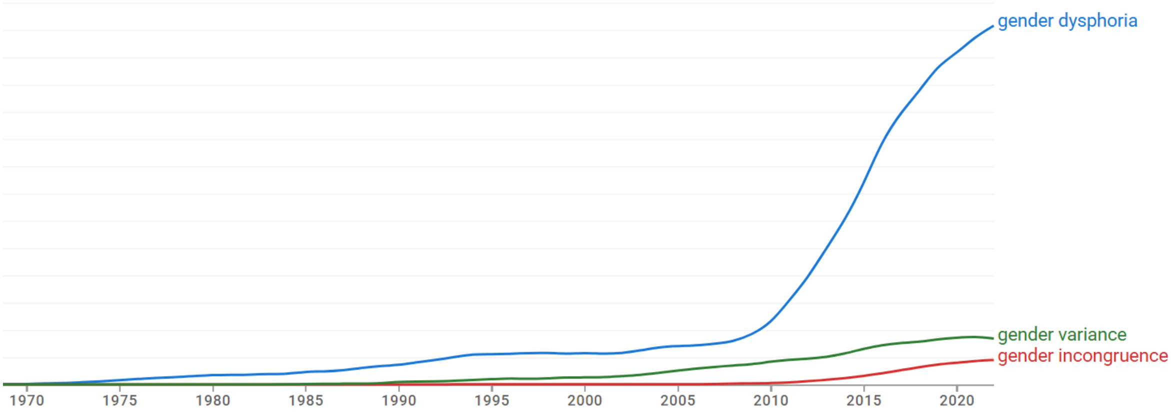


Figure 5: Google N-gram indicating the increased adoption of the term gender dysphoria. Correlationally, the trend from around 2008 corresponds to the increase in clinical diagnoses in adolescents (Google N-Gram)

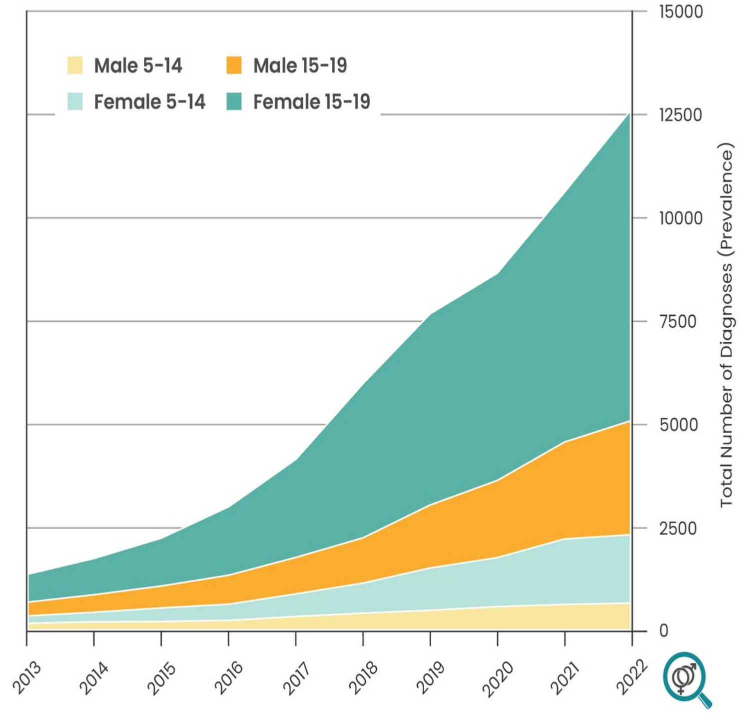
The decision by the WHO to remove distress and/or dysfunction from the criteria was informed by a recognition that not all of those who identify under the umbrella of "transgender" will have distress, but some will still seek to align the appearance of their body to what they consider to be their gender identity and are therefore still in need of low cost treatment which would otherwise not be available through health services (Robles et al. 2021: 2). If it were not a diagnosable condition, this would be seen as cosmetic surgery or body modification and not covered by insurance or public health services. The APA's decision to keep the classification can be seen as at least more logically consistent with the recommendation of medical intervention, however in doing so it retains the stigmatised label of explicit mental disorder. The loosening of the criteria has been suggested as a probable cause of expanded diagnosis rates (Zucker 2009), as discussed earlier.

Current trends in clinical referrals at youth gender identity services

[Figs. 6a-d] show how gender dysphoria (or gender identity disorder) has gone from being a relatively rare condition in children to being so common that it has totally overwhelmed respective healthcare services within a decade. While the resulting prevalence rates vary as a proportion of each countries population, the same shifting demographic in sex and age at referral is holds across countries.

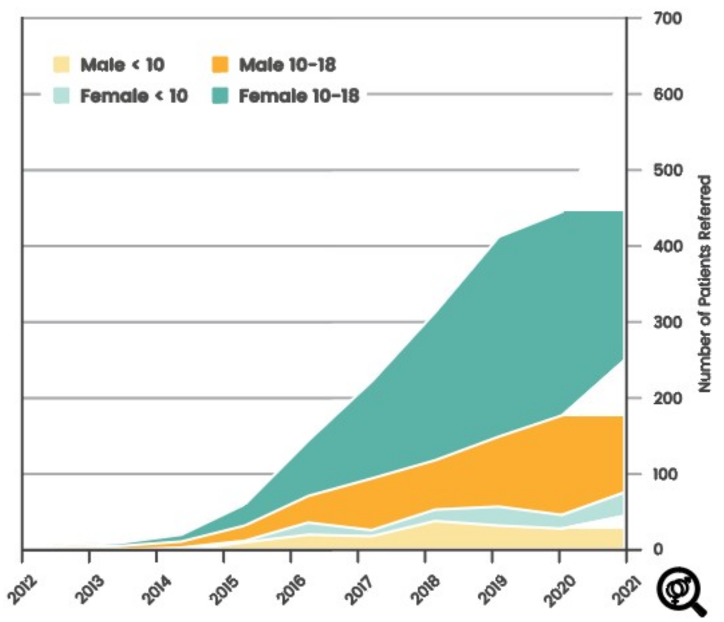
Child and Adolescent Diagnoses of Gender Dysphoria

Germany



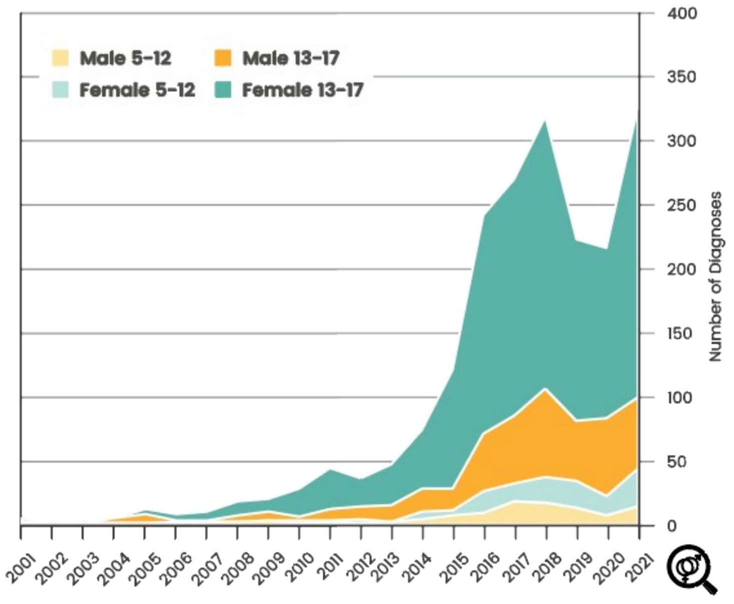
Source: Bachmann CJ, Golub Y, Holstiege J, Hoffmann F. Störungen der Geschlechtsidentität bei jungen Menschen in Deutschland: Häufigkeit und Trends 2013–2022. Eine Analyse bundesweiter Routinedaten. [Gender identity disorders among young people in Germany: prevalence and trends, 2013–2022. An analysis of nationwide routine insurance data.] Deutsches Ärzteblatt 2024; 121:370–371. DOI: 10.3238/arztebl.m2024.0098. Raw count data presented with permission.

Child and Adolescent Referrals of Gender Dysphoria
Spain (Catalonia, Valencia)



Sources: 1. For the "Servei Trànsit", the official system of Gender Dysphoria clinics within Catalonia: Feministes de Catalunya (2022); "De hombres adultos a niñas adolescentes: cambios, tendencias e interrogantes sobre la poblacion atendida por el Servei Trànsit en Catalunya, 2012-2021." 2. For Valencia: Expósito-Campos et al. (2023) "Evolution and trends in referrals to a specialist gender identity unit in Spain over 10 years (2012-2021)" The Journal of Sexual Medicine, https://doi.org/10.1093/jsxmed/qdac034.

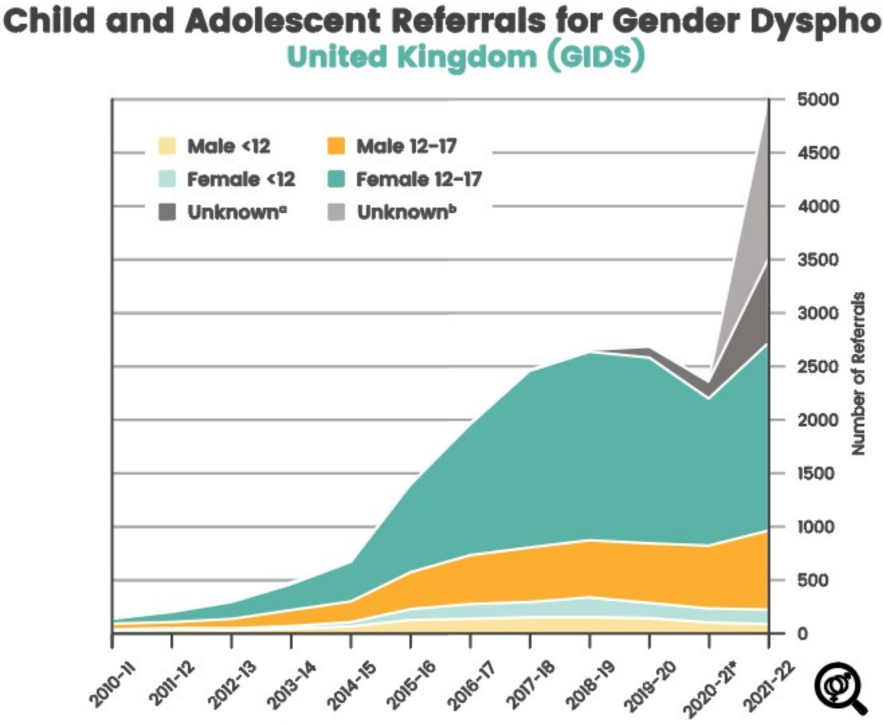
Child and Adolescent Diagnoses of Gender Dysphoria
Sweden



Incidence data for 2001-2018 from the Swedish National Board of Health and Welfare[a] were applied to population counts by age/sex/year from Statistics Sweden[b] to produce estimated GD diagnosis counts. Incidence data for 2019-2021 were drawn from an update of "God vård av barn och ungdomar med könsdysfori, 2015" (Socialstyrelsen, 2022, unpublished).

[a] Socialstyrelsen, Utvecklingen av diagnosen könsdysfori - förekomst, samtidiga psykiatriska diagnoser och dödlighet i suicid, 2020.

[b] https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101A/BefolkningR1860N/


Child and Adolescent Referrals for Gender Dysphoria

United Kingdom (GIDS)

*Referral activity to GIDS/Tavistock was sharply limited in 2020-2021 due to COVID-19.
[a]Beginning in 2018-19, increasing numbers of referrals are not reported by sex.
[b]Beginning July 2021, referrals made directly to GIDS are reported separately from those handled by the Arden & GEM referral management service. The Tavistock reports that Arden & GEM handled over 1500 additional referrals in 2021-22 (age and sex not reported separately).

Figures 6a-d: number of children diagnosed with or referred to for diagnoses of gender dysphoria by youth gender clinics across 4 European countries. Results are differentiated by sex and age of referral (SEGM 2024).

As can be seen from both diagnoses (Germany, Sweden) and referrals (Spain, United Kingdom) there has been a near exponential rise in minors being treated for gender dysphoria across the West. What is particularly striking from these figures is that the emergence of adolescent-onset gender dysphoria in females accounts for the vast majority of the rise in both referrals and diagnoses. A similar pattern is also visible in Australia (Amos 2024), Canada (Chiniara et al. 2018) Finland (Kaltiala et al. 2015), the Netherlands (Wiepjes 2018) the US. (Zhang 2021), and elsewhere (Kaltiala et al. 2019b).

In Finland, the first gender identity clinics for adolescents were set up in 2011. Based on the available body of literature at the time, the clinicians describe their expectation that a small number of adolescents would be referred to them, and that the modal patient was likely to be male with distress around gender appearing in and persistent since early childhood (Kaltiala et al. 2015: 6). During the first two years of service however, they received four times as many referrals as expected, and the actual makeup of the patient body was also completely different. In a direct reversal of expectations, referrals skewed heavily female (>80%), with the majority (>60%) beginning to question their gender identity only after the age of 12 (i.e. during or after puberty) (ibid.: 4) and the overwhelming majority (nearly 90%) developing severe problems only in adolescence (ibid.: 5). In addition, over 75% of the referred adolescents were being or had been treated for psychiatric reasons unrelated to gender identity, with depression, anxiety, self-harm and autism the most common reasons, and substance abuse, psychosis, mutism, ADHD and anorexia present at lower rates (ibid.: 5).

From data collected from this early pool of patients, the Finnish clinicians identified five distinct subgroups based around onset on gender dysphoria (during childhood or adolescence), psychiatric functioning and social adjustment, with the smallest grouping reflecting the presentations they were expecting. The largest of these groups, comprising almost half of patients, was labelled the "identity confused" group who suffered from severe anxiety and depression, experienced significant bullying and isolation predating gender issues, and for whom gender dysphoria first presented in adolescence. Significantly, this group is described as having "[v]ery high expectations that SR [sexual reassignment] would solve their problems in social, academic, occupational and mental health domains" (ibid.: 5).

The same clinic later evaluated the psychosocial functioning of those adolescents who were treated for their gender dysphoria with cross-sex hormones (i.e. those considered the most psychologically suitable), with an expectation of improvement in age-appropriate functioning across peer relationships, living arrangements, psychiatric treatment etc. (Kaltiala et al. 2019a: 2). At one year of follow-up, the need for specialist level psychiatric intervention (primarily for depression and anxiety) had significantly decreased (ibid.: 4). However, no group level improvements in social functioning were found, and some individuals who had functioned well in peer relations, school/work life and romantic relationships prior to treatment displayed a worsening of functioning in these domains following treatment (a 9%, 15% and 34% reduction, respectively) (ibid.: 4). What's more, over a quarter of those adolescents who had not previously needed psychiatric treatment at time of assessment began to need it after treatment. This would seems to challenge the idea that this lack of psychological functioning is caused by discrepancy between external appearance and internal identity.

Prevalence in the general population

In addition to an increase in clinical referrals, the same countries have also seen an exponential increase in transgender identification concentrated in adolescent populations. Estimated prevalence rates in (Western-) young people range from as high as one in ten (Abruzzese et al. 2023: 675) as low as one in fifty thousand (Kaltiala et al. 2015: 6).

The Canadian government census of 2021, the first time a national government had collected data on gender identity, recorded 100,815 trans identifying people over the age of fifteen, representing 0.33% of that population subset which the government suspects to be an underestimate (Government of Canada 2021). This figure masks some complexity however, as the numbers skewed massively young (0.85% of adults in the 20-24 age range), and over 41% of the overall figure (N=41,355) reported a non-binary identification (Government of Canada 2021). In Australia, the government estimates that as many as 2-3% of youth have a gender identity different to their sex[8] (Government of Australia 2018).

Levine et al. point out that although the DSM-5 estimated the prevalence of gender identity variations in adults at between 0.002-0.014% in 2013, by the end of the decade between 2-9% of US high-schoolers and 3-5% of university students were trans-identified, of whom 63% reported having a non-binary rather than cross-sex identity (Levine et al. 2022: 707-708). This can also be seen in a respective five- and fourfold increase in trans-identification among 18-24 and 25-34 year olds in just 8 years [fig. 7], while remaining relatively stable for populations over the age of 35. Similar to elsewhere, these increases are primarily driven by adolescent females (Twenge et al. 2024).

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[8] "It is estimated that 2–3% of young people identify as transgender, gender diverse or non-binary (trans). Both nationally and internationally there are increasing numbers of children and adolescents experiencing gender dysphoria/incongruence that are being referred to specialist gender services."

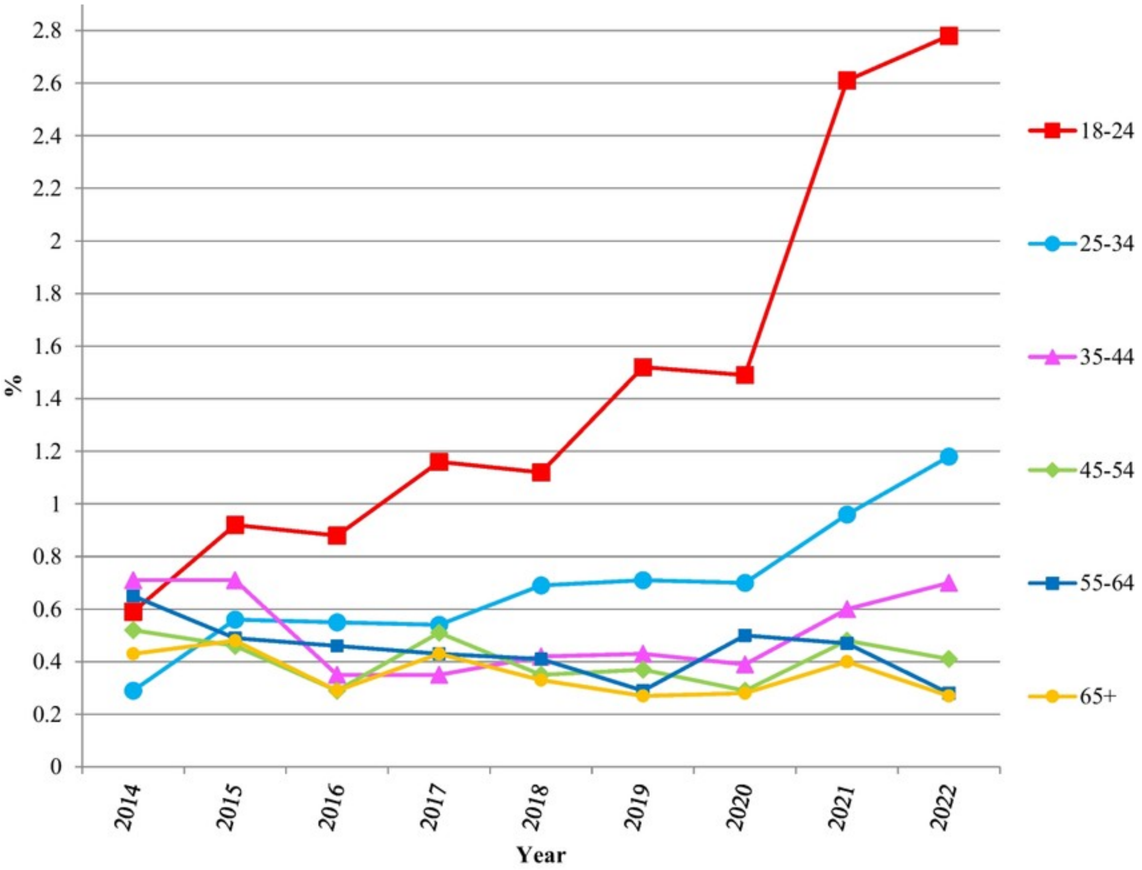
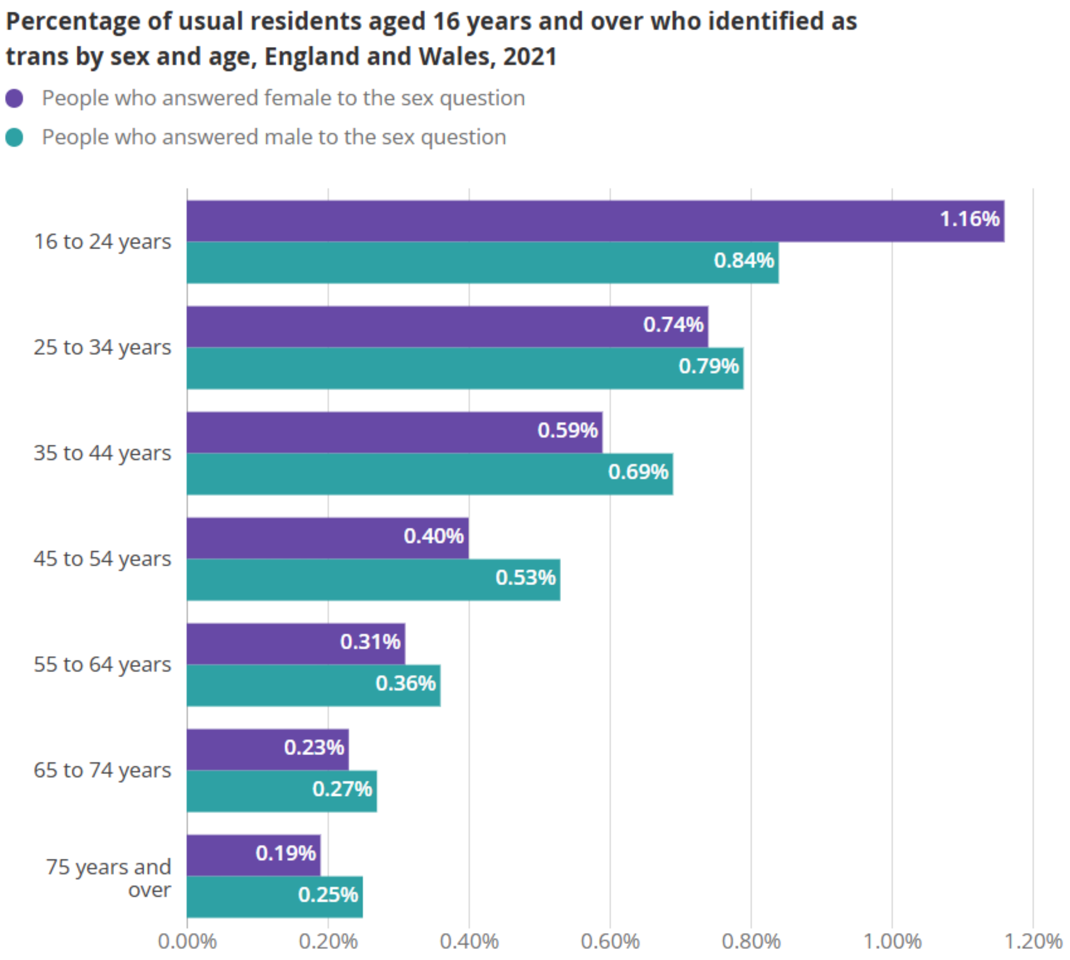


Figure 7: Transgender identification in the US by age group (Twenge et al. 2024).

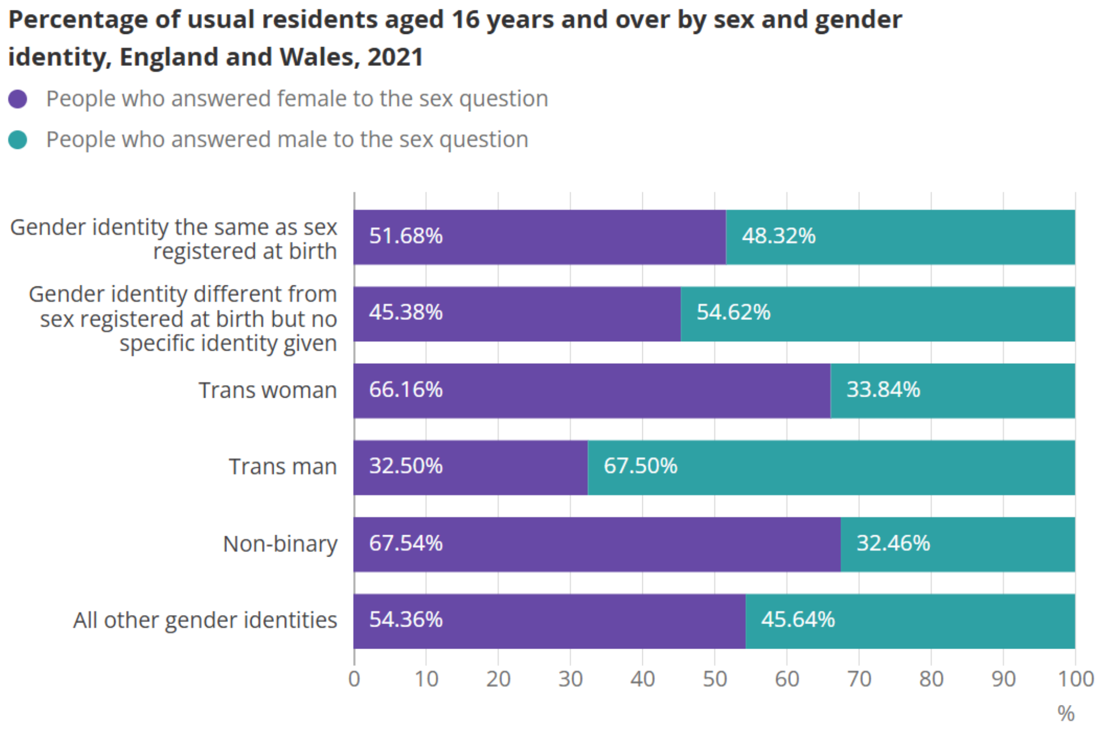
The same pattern is indicated by census data from England and Wales, which in 2021 included for the first time questions aimed at gauging gender identity in addition to sex [Fig. 8].



Source: Office for National Statistics – Census 2021

Figure 8: Transgender identification by age and sex across England and Wales in the 2021 census (ONS 2023).

This data is also illustrative of the inconsistency with which terms are used, and the resultant confusion that arises at many levels. When the census data is disaggregated to more specific categories for instance [Fig. 9], it becomes clear that the majority of people who answered "yes" to the question "Is your gender identity different from you sex registered at birth?" (ONS 2023) and subsequently labelled themselves a "trans man" or "trans woman" (i.e. female or male) also answered the sex question in line with this identity. By very definition only females can be transmen and vice versa, so this discrepancy is likely caused by a combination of trans-identified persons adopting the sex that aligns with their gender identity rather than that registered at birth, and non-trans identified persons simply misunderstanding what was being asked of them (the highest proportion of self reported misalignments between gender identity and sex occurred in a majority-Muslim area with one of England’s the lowest rates of English speaking (Biggs 2024)).



Source – Office for National Statistics – Census 2021

Figure 9: Census data comparing sex to gender identity. Two thirds of people who identified as transwomen answered “female” to the sex question, despite this being oxymoronic. The same apparent contradiction was true of those who identified as transmen. (ONS 2023).

Prevalence indicated by healthcare data

More data is available for clinically referred populations, which comprise a relatively small subset of the overall trans-identified youth population but at least somewhat correspond to these wider societal trends.

The UK zouth gender clinic was established in 1989, with referrals averaging well below 50 children per year during its first two decades (Cass 2024: 25). In response to the interim Cass Report in 2022, NHS England announced a restructuring on their Gender Identity Development Service (GIDS), citing in part a further doubling of year on year demand to 5,000 between 2020 and 2021 (NHS 2022). In the USA, diagnoses of gender dysphoria in under 18s increased nearly threefold in the four years leading to 2021 [Fig. 10].

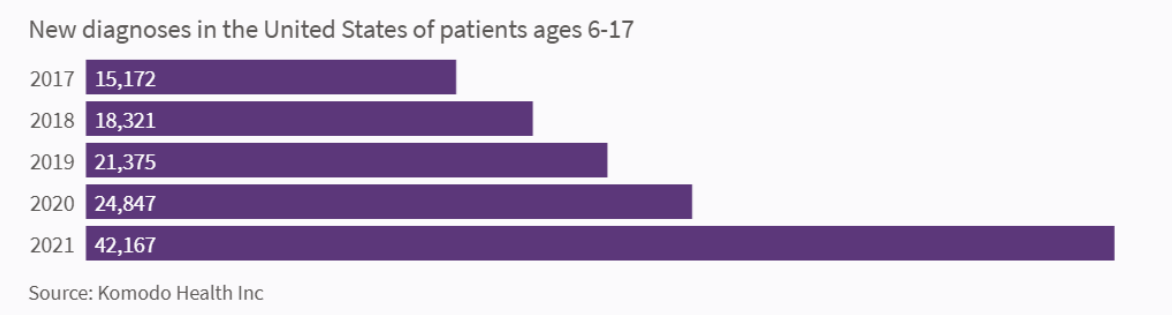


Figure 10: New diagnoses of gender dysphoria in children between the ages of six and seventeen in the United States (Respaut & Terhune 2022).

PART 3: Explanations

Considering the globalised pattern of this new presentation, remarkably little research has been conducted to illuminate the cause behind this particular shift. A review commissioned by the Swedish government aimed at examining the increased prevalence of gender dysphoria in children and adolescents for instance found: "[n]o studies explaining the increase of children and adolescents seeking [care] for gender dysphoria were identified" (Ludvigsson et al. 2019: 2). In the absence of much solid, neutral empirical evidence then, many explanations fall broadly into one of two camps.

Perhaps the most common explanation for these trends is that they simply reflect a population which is stable over time but was previously underserved or ostracised, and as a result of improved services, awareness and de-stigmitisation they are now able to recognise and get help whereas they would have had to suffer alone in previous generations: "the observed trends reflect increasing willingness of TGNB [Transgender and non-binary] people, especially those in the younger age groups, to reach out to providers" (Zhang et al 2021: 394).

While there is some disagreement as to the exact degree of innateness or fixedness gender identity within this first group, there tends to be agreement that gender identity is far more foundational to a person's essence than sex, and an individual's verbalised phenomenological gender should be affirmed at all times. For this group, there is a roughly stable distribution of gender identities throughout history and cross culturally, but depending on the specific cultural context individuals may not be able to express, or indeed even come to be aware of it for themselves. This group will be referred to as “gender affirmative”.

There is also a great amount of heterogeneity in the second broad camp, which is characterised by a scepticism of gender identity claims, with some seeing utility in the concept and others rejecting it outright. For this group, gender identity, to the extent that it exists as a meaningful concept at all, is primarily socially mediated and shaped by many context specific factors similarly to personality or other abstract internal notions which are expressed externally, whereas sex is seen as a more objective measure. This group will be referred to as “gender sceptical”.

Proponents of the affirmative view see contemporary notions of gender identity as having revealed a higher truth, and therefore the responsivity of healthcare providers to take at face value an individual’s gender identity and not gate-keep the provision of requested medical interventions: “while in the past their patients commonly related long histories of unrecognized dysphoria, this was less likely in recent years due to better access to information and greater social acceptance of TGNB people” (Zhang et al 2021: 394).

Those more sceptical of the affirmative approach often agree that these same factors have lead to an increased identification with alternative gender identities, but disagree that this confirms that these identities are therefore a core essence of the individual. Rather they believe that the concept is open to interpretation and re-evaluation depending on shifting societal contexts and advocate therefore for a more cautious approach to medical intervention: “[w]ithout the knowledge of whether the gender dysphoria is likely to be temporary, extreme caution should be applied before considering the use of treatments that have permanent effects such as cross-sex hormones and surgery” (Littman 2019: 37).

In a sense, many disagreements between the two camps can be seen as resulting from which of two binary categorisations each group values. On the affirmative side, people are born either cis-gendered or trans-gendered, and sex is less important or doesn’t exist. And on the sceptical side people are born either male or female, and gender identity is less important or doesn’t exist. While the affirmative camp has come to be much more dominant culturally and clinically, the paradigm of psychiatriyation would be much more sympathetic to the second of these groups, wherein a range of previously unspecified feelings become viewed through an increasingly medicalised lens attached to the neat explanation and numerous treatments that gender affirmative care provides.[9]

In scrutinising the hypothesis that the increasing rates of gender dysphoria merely represents a truer reflection of gender identity misalignment enabled by a more tolerant society, Hilary Cass contends that:

> While it certainly seems to be the case that there is much greater acceptance of trans identities, particularly among younger generations, which may account for some of the increase in numbers, the exponential change in referrals over a particularly short five-year time frame is very much faster than would be expected for normal evolution of acceptance of a minority group. This also does not adequately explain the switch from birth-registered males to birth-registered females, which is unlike trans presentations in any prior historical period. (2024: 26)

She goes on to reference the generally rising diagnoses of mental ill health that is disproportionately borne by adolescent females and draws explicit parallels with other “bodily manifestations of distress” such eating disorders and less gender-centric forms of body dysmorphia (Cass 2024: 27).

The *symptom pool* refers to the concept that within a certain cultural discourse there is a given set of conceptual frameworks through which individuals can understand their distress (Paris 2024: 2). Hysteria is often used as the emblematic example of a condition to which various symptoms were ascribed in different historical contexts, and although it was once a very common diagnosis, as it no longer appears in any of the diagnostic manuals for all intense and purposes it no longer “exists” as a psychiatric condition.

What’s more, the presentation of psychiatric conditions have been seen to adapt when a population is exposed to outside conceptualisations, such as the doubling in prevalence and increase in severity of eating disorders in Hong Kong following a highly publicised death and subsequent public health awareness campaign (Lee 2009).

Increasing awareness of a condition can attract individuals with unspecified symptoms to become attracted to a medical diagnosis as an authoritative explanation of

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[9] Having a gender identity aligned with sex (assigned at birth), i.e. not transgender

their thoughts, feelings and behaviours. This is often reinforced top-down by medical providers:

> patients can become strongly attached to what they may call ‘my diagnosis’, using a label to explain a wide variety of problems, sometimes to the point that a diagnosis can become part of their identity. In this way, social contagion can be reinforced by health professionals who prefer certain diagnoses and who encourage patients to frame their problems to support these preconceptions (Paris 2024: 2).

Rapid Onset Gender Dysphoria

Rapid Onset Gender Dysphoria (ROGD) is a hypothesis first proposed by physician Lisa Littman to account for the shift in dominant cohorts at youth gender clinics from pre-pubescent males to peri- and post-pubescent females (Littman 2019). Her initial descriptive study relied on survey data collected from 256 parents in the forums of gender sceptical websites. This obviously exposed the results to a high sampling bias, as the parents were already predisposed towards scepticism of their children’s professed identities, nonetheless the information collected may still be of some utility particularly in the absence of alternative data. Indeed, the parents were otherwise heavily skewed female (92% mothers), educated (95% college educated or higher) and liberal, with only 7% opposing gay marriage and 3% answering “no” to the question of whether “transgender people deserve the same rights and protections as others” (ibid.: 6).

Based on these parent reports she hypothesised ROGD as a subset of gender dysphoric youth characterised by the a sudden adoption of a transgender identity during or after puberty with no prior history of gender related issues. Collected in the summer of 2016, the demographic characteristics reported on by the parents corresponds remarkably with trends from the wider figures: 83% female with an average age of over 16 years of age (range 11-27) at onset (ibid.: 6) and more than 62% having a predating mental health diagnosis (ibid.: 10).

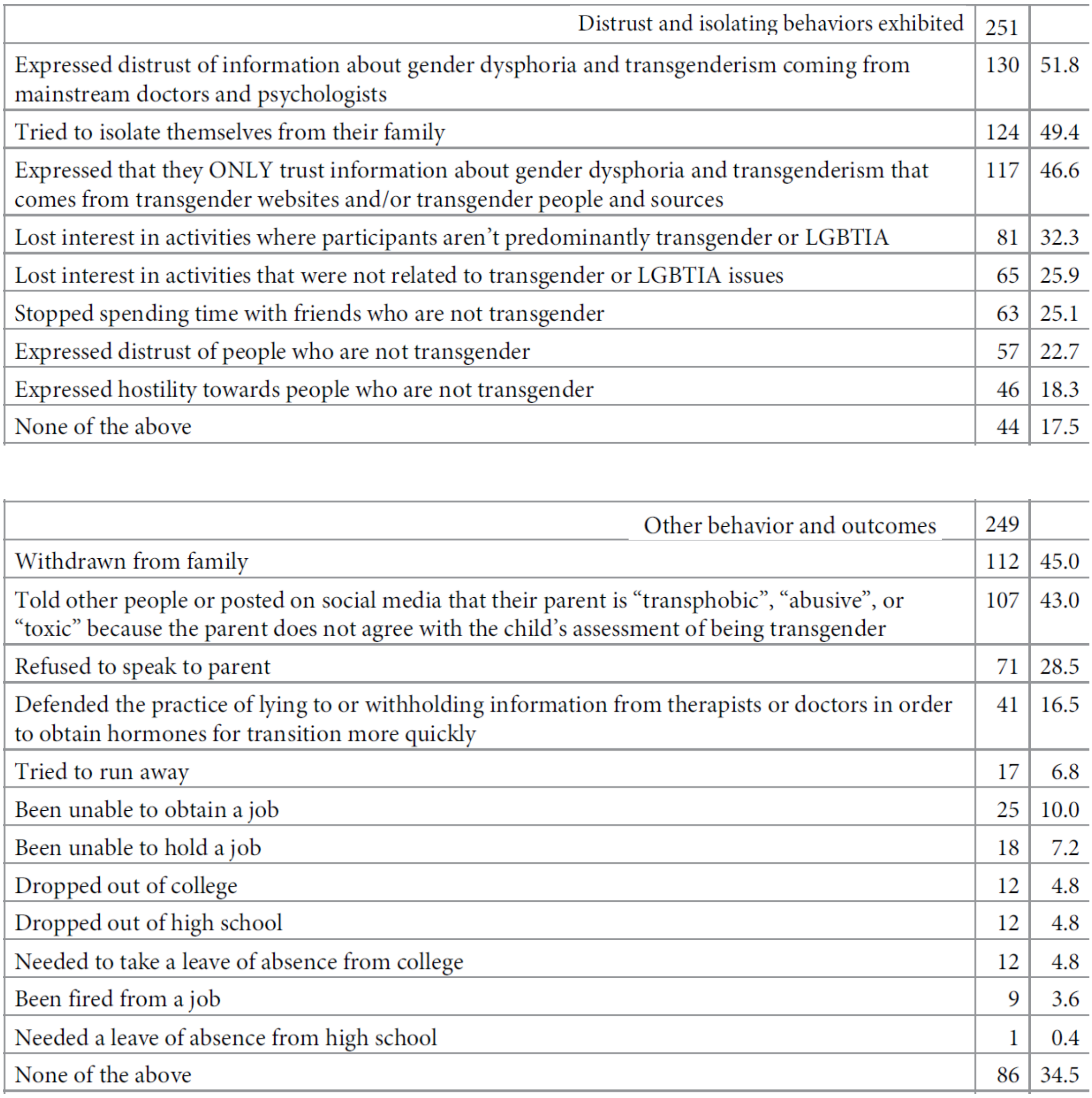
Despite its methodological issues, the study can therefore potentially shed some light on some underlying factors behind the general trend. One of the most striking results was that in at least 69% of cases the child “[b]elonged to a friend group where one or multiple friends became transgender-identified during a similar timeframe” (ibid.: 7), including “[i]n 36.8% of the friendship groups described, the majority of the members became transgender-identified.” (ibid.: 1).

Considering historical epidemiological estimates, such high concentrations of gender dysphoria within pre-existing friendship groups would appear near statistically impossible anomalies. In addition, 65% of parents reported their child’s social media and internet use had significantly increased prior to their dysphoria, with only 5% of parents reporting neither of these two. Taken as a proxy for social influence, Littman proposes that a mechanism of social contagion may in part account for the rise of this specific cohort. Qualitative examples given by patients would also seem to hint at such explanations, such as “[a] 14-year-old natal female and three of her natal female friends were taking group lessons together with a very popular coach. The coach came out as transgender, and, within one year, all four students announced they were also transgender” (ibid.: 15).

Her data also seems to suggest that there is a wider affiliation with a social movement rather than necessarily internal distress. In over 60% of cases the child’s popularity with peers increased after announcing a transgender identity (parent’s perception), as opposed to 6% decreasing and 33% staying the same (ibid.: 16). What’s more, 60% of parents reported that their child and friends would mock non-LGBT people[10] and generally show strong distrust for non-trans identified people, including friends and family (see [Tab. 1] for a quantitative overview of this part of the survey).

	n	%
Parents have been called “transphobic” or “bigoted” by their child for the following reasons*	240	
Disagreeing with their child about the child’s assessment of being transgender	123	51.2
Recommending that their child take more time to figure out if their feelings of gender dysphoria persist or go away	107	44.6
Expressing concerns for their child’s future if the child were to take hormones and/or have surgery	97	40.4
Referring to their child by the pronouns that they used to use before announcement	91	37.9
Telling their child that they thought hormones/surgery would not help them	90	37.5
Calling their child by the child’s birth name	80	33.3
Recommending that their child work on other mental health issues first to determine if they are the cause of their dysphoria	80	33.3
Recommending therapy for basic mental health issues (not related to gender)	74	30.8
Recommending a comprehensive evaluation before starting hormones and/or surgery	50	20.8
None of the above	87	36.2

assigned at birth, and non-minority places you in the ‘most evil’ of categories with this group of friends. Statement of opinions by the evil cis-gendered population are consider phobic and discriminatory and are generally discounted as unenlightened“



Distrust and isolating behaviors exhibited	251	
Expressed distrust of information about gender dysphoria and transgenderism coming from mainstream doctors and psychologists	130	51.8
Tried to isolate themselves from their family	124	49.4
Expressed that they ONLY trust information about gender dysphoria and transgenderism that comes from transgender websites and/or transgender people and sources	117	46.6
Lost interest in activities where participants aren't predominantly transgender or LGBTIA	81	32.3
Lost interest in activities that were not related to transgender or LGBTIA issues	65	25.9
Stopped spending time with friends who are not transgender	63	25.1
Expressed distrust of people who are not transgender	57	22.7
Expressed hostility towards people who are not transgender	46	18.3
None of the above	44	17.5

Other behavior and outcomes	249	
Withdrawn from family	112	45.0
Told other people or posted on social media that their parent is "transphobic", "abusive", or "toxic" because the parent does not agree with the child's assessment of being transgender	107	43.0
Refused to speak to parent	71	28.5
Defended the practice of lying to or withholding information from therapists or doctors in order to obtain hormones for transition more quickly	41	16.5
Tried to run away	17	6.8
Been unable to obtain a job	25	10.0
Been unable to hold a job	18	7.2
Dropped out of college	12	4.8
Dropped out of high school	12	4.8
Needed to take a leave of absence from college	12	4.8
Been fired from a job	9	3.6
Needed a leave of absence from high school	1	0.4
None of the above	86	34.5

Table 1: Additional social behaviours exhibited reported by parents following a trans identification (Littman 2019: 22)

Nearly 70% of parents strongly suspected that the language found online to first announce their new gender identity (ibid.: 13), with qualitative examples provided reporting their child sounding "wooden" or "scripted", or subsequently going online themselves and finding near verbatim testimonies: "The email [my child sent to me] read like all of the narratives posted online almost word for word" (ibid.: 14).

Aitken et al. propose increased media representation and information on the internet, as well as "the increased awareness of the availability of biomedical treatment for adolescents, including the use of gonadotropin-releasing hormone agonists to delay or suppress biological puberty” (2015: 760) as probable contributing factors towards the increase in referrals in general, but are less clear as to the causes of the shift in demographics.

They speculate that the increase in trans-identification in female adolescents may be as a result of differing cultural attitudes toward gender non-conformity in females as opposed to males: “[g]iven that a transgendered identity as an “identity option” has become much more visible over the past decade, it is conceivable, therefore, that such an identity option is easier for females to declare than it is for males because it does not elicit as much of a negative response” (2015: 761).

As well as these pull factors, there appear to be a number of push factors which might contribute to the rise in this particular cohort of adolescent females. In discussing the apparently socially mediated nature of this new phenomenon, she draws parallels to anorexia, which has similar demographic profile of adolescent females, where norm formation is negotiated in friendship cliques centred around body image and websites and forums providing “thinspiration” (ibid.: 3-4). Another provided example makes the parallels more clearly:

> A 12-year-old natal female was bullied specifically for going through early puberty and the responding parent wrote “as a result she said she felt fat and hated her breasts.” She learned online that hating your breasts is a sign of being transgender. She edited her diary (by crossing out existing text and writing in new text) to make it appear that she has always felt that she is transgender (ibid.: 15).

Littman used the DSM-V diagnostic criteria to gauge the parents’ recollection of their child’s pre/puberty years. To be diagnosed, a child should meet at least 6 of the 8 criteria, 5 of which are readily observable behavioural characteristics (A5 → A strong preference for playmates of the other gender) and the remaining 3 are heavily reliant on the child verbalising their feelings (A7 → “A strong dislike of one’s sexual anatomy”). Clearly this is open to recall bias, but in 80% of cases the parents recalled 0 of these indicators, while a further 12% recalled 1. None of the remaining cases reported more than 4 of the required 6 for diagnosis in childhood (ibid. 11).

Despite this, and despite the majority of parents reporting their child either seemed not at all dysphoric at the time of coming out to them, or that signs had developed only shortly beforehand, there was a high intention among the children to seek out medical treatment. 34% asked for treatment at the same time as the announcement of their identity (ibid.: 13). Of the 70% which intended to medically transition in some way, 67% wanted access to cross/sex hormones and 53% told the parent that they wanted surgery (ibid.:13). When asked to evaluate whether their child "has [a] very high expectation that transitioning will solve their problems in social, academic, occupational, or mental health areas", 56% said *yes*, while only 5% said *no* (the remaining were *don't knows*) (ibid.: 14).

Because gender identity is inherently subjective, there is necessarily a lack of "clear criteria to separate a young person's "wish" from a "need"" (Abruzzese et al. 2023: 687). There is also some indication that this element in particular is influenced by the children's online behaviour. Asked about internet sources, parent's reported their children

> had received online advice including how to tell if they were transgender (54.2%); the reasons that they should transition right away (34.7%); that if their parents did not agree for them to take hormones that the parents were "abusive" and "transphobic" (34.3%); that if they waited to transition they would regret it (29.1%); what to say and what not to say to a doctor or therapist in order to convince them to provide hormones (22.3%); that if their parents were reluctant to take them for hormones that they should use the "suicide narrative" (telling the parents that there is a high rate of suicide in transgender teens) to convince them (20.7%); and that it is acceptable to lie or withhold information about one's medical or psychological history from a doctor or therapist in order to get hormones/get hormones faster (17.5%) (ibid.: 19).

Of those known to have accessed treatment by the time of the survey (over a third), there are clear signs that the majority of clinicians were acting under the gender affirmative model. Asked whether the "therapist/physician/clinic staff explore[d] issues of mental health, previous trauma, or any alternative causes of gender dysphoria before proceeding", only 21% responded yes (*no* = 51%, *don't know* = 26%) (ibid.: 23). Furthermore, 24% received a prescription for puberty blockers and/or hormones on their first visit (which some of the children actually turned down), and 67% of parents were "reasonably sure or positive that their child misrepresented or omitted parts of their history" (ibid.: 23).

Themes emerging from the qualitative questions include “insufficient evaluation”, an example of which being “[w]hen we tried to give our son’s trans doctor a medical history of our son, she refused to accept it. She said the half hour diagnosis in her office with him was sufficient, as she considers herself an expert in the field” (ibid.: 26).

Another theme was an attribution by healthcare providers of all problems as stemming from gender identity, and a reluctance to communicate with other professionals who have a longer relationship with the patient: “[m]y child had been seen for mental health issues for several years before presenting this new identity, but the endocrinologist did not consult the mental health professionals for their opinion before offering hormones” (ibid. 26/27).

Perfect storm environment for the placebo effect

In reference to gender affirming treatment (GAT), Alice Clayton outlines a number of variables in place that she believes contributes to a “perfect storm environment for the placebo effect” (2022: 483). From the patient side, this takes the form of a sharp increase in prevalence of a condition for which there is no objective diagnostic test, accompanied by a dramatic but unexplained shift in patient demographics, who nonetheless represent a young and vulnerable group (ibid.: 487).

From the medical profession side, she points to “[s]ome clinicians, who may be affiliated with prestigious institutions, enthusiastically promote GAT, including on the media, social media, and alongside celebrity patients.” (ibid.: 488). This promotion often provides a one sided view of the “life saving” effects of treatment, while playing down significant risks and downsides. At the same time, previous less invasive treatments are demonised as simply “doing nothing” at bests, and as “conversion” practices at worse (ibid. 488). She highlights the role of social observational learning and expectation in the placebo effect (2022: 483), noting that the “media and social media may also foster these effects and contribute to the dissemination of symptoms and illness throughout the general population” (ibid.: 484).

In dealing with “treatments that have significant risks of adverse effects” (ibid. 484) it is particularly important to separate out the effects of placebo from treatment, which is best done in double-blind randomised controlled trials outside of clinical settings which are high risk for the placebo effect.

To illustrate why she believed this to be particularly true of youth gender clinics, she provides a detailed example from the Trans20 prospective cohort study at the Royal Children's Hospital in Melbourne. Ongoing engagement with the study was facilitated though a newsletter, where the "research request was placed amid positive accounts of the service and its patients" in which young patients reported they were:

> ""empowered...and more likely to start living in their preferred gender," and ha[d] improvements in mental health and quality of life […] One pro-GAT parent network [...] was spotlighted. There was a "lived experience" piece in which a well-known transitioned patient, now young adult, was pictured receiving an award. This patient provided personal testimony of the clinics medical director: She "will always be one of my biggest heroes […] Intelligent, compassionate and strong"" (ibid.: 489).

By highlighting one-sided success stories of only the happily transitioned patients, this seemingly innocuous and insignificant newsletter can be seen as itself contributing to a placebo effect in the research study which it facilitates. Among the mechanisms contributing to this effect, Clayton lists prestige suggestion, social learning/cognition, response bias (participants with less positive experiences may be disparaged from responding) and the Hawthorne effect (improvements linked to receiving special attention) and patient bias (wanting to please a clinician by reporting positive results) (ibid.: 490). This invites one to think of the gender dysphoric patient who is unsure that social and medical transition is right for them: "[w]here is the celebration of this young person's choices? […] he/she will never be an award-winning patient" (ibid.: 490).

In addition to creating a placebo effect for treatment, Clayton also contends that by so thoroughly disparaging non affirmative treatment, a nocebo effect surrounds these alternative treatments, as patients are primed to see them as ineffective or harmful (ibid.: 490). At the same time, because the hypothesised "true gender" is perceived as innate and as residing in the mind rather than the body, any form of therapy where "the goal is to help the child feel more comfortable in his or her own skin" (Zucker et al. 2012a: 388) is seen as conversion therapy, i.e. an attempt to convert the mind-gender to conform to the body-gender, (rather than vice versa, which is seen as the correct way).

The conflation of homosexuality with transgenderism necessarily hides any conflict of interest that may arise between the two groups. Given that a large majority of children treated under a watchful waiting protocol grew up to be homosexual adults, it is this very group that is the most at risk of unnecessary medicalisation in the name of affirming the "true gender self". What's more, framing the motivations for non-affirmation of gender identity as "heteronormative" or otherwise bigoted demonises any alternative perspective, leaving affirmation the only politically acceptable option, and belies the fact that through the lens of gender affirmation a same-sex attracted individual is actually heterosexual but just "born in the wrong body".

Reporting on one of their studies at the clinic in Amsterdam, the Dutch researchers say of their subjects: "[a]ll adolescent trans boys reported to be gynephillic and about 70 % of the trans girls reported to be androphillic" (Bakker et al. 2024: 5). To understand the significance of this statement, it may require rephrasing: *every one of the teenage girls being given puberty blockers and testosterone to masculinise their appearance were attracted to other girls and women, and more than 2 in 3 of the teenage boys being given puberty blockers and oestrogen to feminise their appearance were attracted to other boys and men*. Twenty years ago this would likely have been seen as sterilising gay and lesbian kids to turn them straight, today it is hailed as social progress and is championed by every single major LGB(TQIA+) organisation in the West as an affirmation of gender identity.

The logical inconsistencies of grouping the two are clear in much of the literature surrounding so called "conversion therapy", which emotively evokes historical uses of electroshock therapy to "cure" homosexuality in order to parallel that to any form of treatment for gender identity issues which is not affirmative:

> "Cisheterosexism is a system of beliefs and practices that center heterosexual cisgender identities as the norm [...] Cisheterosexism is produced and sustained by heteronormativity. Heteronormativity, the system that constructs heterosexuality as the only normal, natural and desirable sexuality, is enabled by the cissexist assumption that gender only exists as a woman/man binary. Heteronormativity operates through a "heterosexualmatrix" that requires "…a stable sex expressed through a stable gender (masculine expresses male, feminine expresses female) that

> is oppositionally and hierarchically defined through the compulsory practice of heterosexuality” [quoting (Butler 1990)]” (Fenaughty et al. 2023: 150).

The explicit application of concepts and paradigms from queer theory to social and medical sciences conveys upon these concepts a new found authoritative stamp of approval. The subsequent diffusion of these ideas into wider discourse is a potential catalysing factor in the recent trends in adolescent adoption of transgender identities that has coincided with a shift away from watchful waiting towards gender affirmation as the dominant clinical approach.

Referring to a marked increase in gender dysphoria referrals in adolescent females in the years 2008-2011 (compared to data stretching back to the founding of their clinic in the mid 1970s), Wood et al. speculate that a combination of internalised homophobia and a perceived elevation in social status mediated by the emergent social media accounted for the changing pattern (2015: 5). Under the orthodoxy of gender affirmation which has taken hold over the intervening ten years, such attributions to anything other than a true reflection of intrinsic gender identity have become almost unsayable. This is particularly well illustrated by the backlash to Littman’s ROGD hypothesis as “a deliberate attempt to weaponise scientific-sounding language to dismiss mounting empirical evidence of the benefits of transition for youth” (Ashley 2020: 789).

Evidence for the necessity of gender affirmation

Almost all of the evidence supporting the efficacy of gender affirmative care for minors comes from the very same clinics that are providing the treatment.

Findings from systematic reviews are stark. A Swedish review highlighted that there are no randomised controlled trials measuring the effect of gender affirming care in children, with all studies being observational, a small minority of which were controlled or followed-up on, and next to no studies of the long term effects of hormonal and surgical “gender affirming” treatment during childhood (Ludvigsson et al. 2019: 1-2).

Looking closer at the two Dutch studies upon which much of the justification of these gender affirmative medical interventions rest, it becomes clear how deeply flawed the foundations are. Abruzzese et al. provide a detailed critique of the claims and methodologies of these studies. They identify their criticism under 3 main categories: “high risk of bias”, “incompleteness of evidence regarding physical health risks”, and "poor generalizability/applicability to current cases" (2023: 677), the first of which will now be explored in more detail.

"High risk of bias"

To understand the sampling bias of the puberty blocking study it is important to have an overview of the Dutch protocol as a whole: puberty suppression at 12, cross-sex hormones at 16, surgery at 18. Despite the case selection of both the 2011 (puberty suppression) and 2014 (surgery) studies being described as "prospective", the inclusion criteria for the puberty suppression study was conditional upon the participant successfully reaching the following stage (administration of hormones), thereby necessarily filtering out any unsuccessful cases of puberty suppression from the study itself. Of the 111 children on puberty blockers, only the 70 (33 boys and 37 girls) that were deemed successful enough to continue to cross-sex hormones were included in the puberty suppression study (de Vries et al. 2011: 2). This criteria led to an inadvertent retrospective selection whereby only the best cases were included at the expense of roughly 37% of the total. It is not clear how well the remaining 41 children faired on puberty blockers as they did not (potentially yet) meet the requirement for cross sex hormones and were therefore not reported on.

Abruzzese et al. contrast this with the results from an English study which attempted to replicate the findings (Carmichael et al. 2021). The potential impact of this retrospective skewing can be seen when the two results are compared. Carmichael et al. failed to replicate the positive outcomes (2021: 19), with group-level psychological functioning more or less in line with pre-trial.

A more complex picture emerges when the individual outcomes from the replication study are disaggregated however. While for the majority of children there was no observed change in psychological functioning, in up to a third of cases functioning measurably deteriorated, while a similar number improved (McPherson & Freedman 2023: 323). The averaging of outcomes across the group as a whole thus masks the fact that while many children had no response to treatment as measured by psychological functioning, as many were seemingly harmed by it than were helped.

The retrospective skewing of the Dutch cohort towards positive outcomes is further exacerbated in the post-surgical 2014 study, which reduces the number of participants further to 55. This is despite the majority (at least 10) of the "missing" 15 participants having undergone surgery, which was a requirement of participation. Despite a relatively short follow-up time of 1 year, 4 participants were either untraceable or refused further participation, 6 were not included because the authors did not wait long enough to publish their results and, most worryingly, one of the (at most) 33 males to undergo surgery died as a result of it (de Vries et al. 2014: 2). Of the 55 included in the study only 22 were males, meaning the outcomes of hormone treatment and surgery on exactly a third of the males were not reported on at all.

A further source of bias noted by Abruzzese et al. is that the proposed benefits of medical and surgical interventions – measured by a reduction of gender dysphoria – is compounded by the concurrent administration of psychotherapy, thereby making it impossible to disaggregate improvements in post-treatment psychological functioning attributable to puberty suppression, hormone treatment and surgery on the one hand[11], from those attributable to those talking therapies on the other (2023: 682-683).

Of all the potential sources of methodological bias in the Dutch studies, perhaps the most significant has to do with how the change in gender dysphoria pre- and post-treatment was actually measured. Gender dysphoria was assessed using the Utrecht Gender Dysphoria Scale (UGDS[12]) consisting of 12 questions answered by the patient on a 5 point scale. The scores are then summed resulting in a maximum score of 60, indicating extreme gender dysphoria (de Vries et al. 2011: 4). In addition, a 30 item Body Image Scale (BIS) was used to assess satisfaction with the body (primary and secondary sex characteristics alongside neutral body-parts).

The USDG is reproduced in full in [Tab. 2]. Sample questions include “I hate menstruating because it makes me feel like a girl” for females, and “I dislike having erections” for males. Originally conceived on as a diagnostic tool for gender dysphoria, the researchers delivered the questionnaires before, during and after treatment (T0, T1 and T2, respectively) to measure change in dysphoria in response to treatment.

Considering the sexed nature of the questions however, the researchers made an unusual decision which would seem to invalidate the results entirely: “[t]he UGDS and the BIS of the **natal gender** were administered at T0 and T1 [...] At T2 young adults filled out the versions of their **affirmed gender**” [emphasis added] (de Vries et al. 2014: 3). In other words, gender dysphoria was measured *before* treatment in relation to the patient’s sexed

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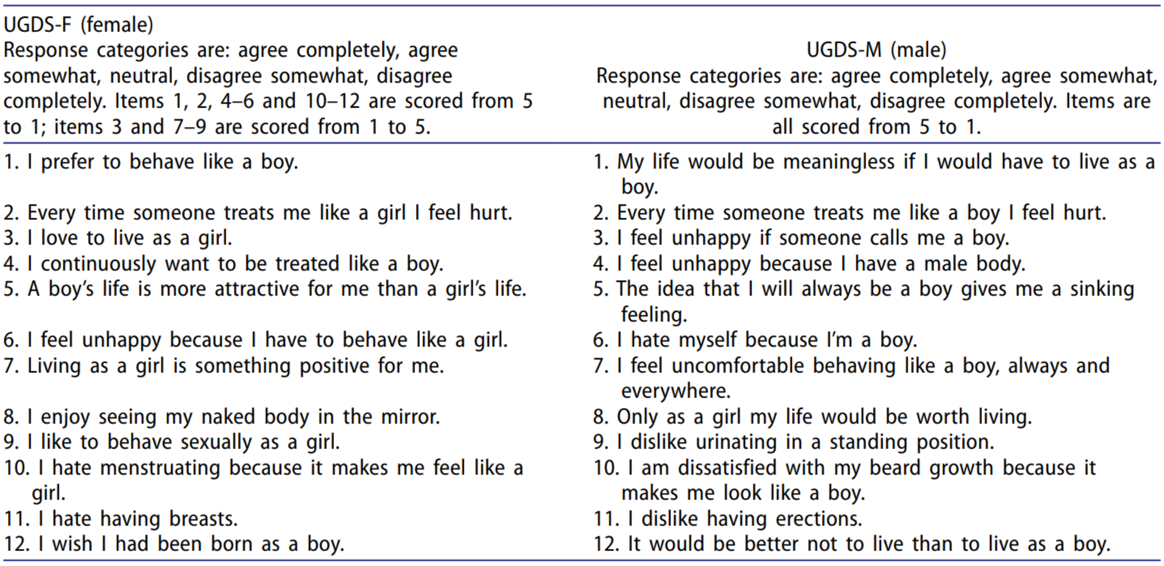
[11] the results of the latter two are also reported together in the 2014 study

[12] Abbreviated to UGS in de Vries et al. 2011 and UGDS elsewhere

body, and *after* treatment in relation to anatomy and bodily processes which the patient does not have.

This switching of scales post treatment resulted in females being asked if they dislike having erections and males being asked if they hate having periods, logically necessitating low scores in both instances. Considering that the surgeries involved orchiectomy and vagonaplasty for males and "mastectomy and hysterectomy with ovariectomy" (ibid.: 2) for females, using the same scale both pre- and post-treatment would also not have been an appropriate alternative, but the inapplicability of the question does indicate that very similar "resolution" (ibid.: 6) of gender dysphoria could potentially have been achieved had the male and female version simply been administered to the same patient immediately one after another without any intervening treatment.



UGDS-F (female) Response categories are: agree completely, agree somewhat, neutral, disagree somewhat, disagree completely. Items 1, 2, 4–6 and 10–12 are scored from 5 to 1; items 3 and 7–9 are scored from 1 to 5.	UGDS-M (male) Response categories are: agree completely, agree somewhat, neutral, disagree somewhat, disagree completely. Items are all scored from 5 to 1.
1. I prefer to behave like a boy.	1. My life would be meaningless if I would have to live as a boy.
2. Every time someone treats me like a girl I feel hurt.	2. Every time someone treats me like a boy I feel hurt.
3. I love to live as a girl.	3. I feel unhappy if someone calls me a boy.
4. I continuously want to be treated like a boy.	4. I feel unhappy because I have a male body.
5. A boy's life is more attractive for me than a girl's life.	5. The idea that I will always be a boy gives me a sinking feeling.
6. I feel unhappy because I have to behave like a girl.	6. I hate myself because I'm a boy.
7. Living as a girl is something positive for me.	7. I feel uncomfortable behaving like a boy, always and everywhere.
8. I enjoy seeing my naked body in the mirror.	8. Only as a girl my life would be worth living.
9. I like to behave sexually as a girl.	9. I dislike urinating in a standing position.
10. I hate menstruating because it makes me feel like a girl.	10. I am dissatisfied with my beard growth because it makes me look like a boy.
11. I hate having breasts.	11. I dislike having erections.
12. I wish I had been born as a boy.	12. It would be better not to live than to live as a boy.

Table 2: the female and male versions of the Utrecht Gender Dysphoria Scale (Abruzzese et al. 2023: 681)

By switching the male and female scales, what is actually being measured is merely the persistence of cross-sex identification rather than a resolution of deeply felt incongruence, as can be seen in the relatively high levels of bodily dissatisfaction in post-surgical adult populations (Abruzzese et al 2023: 682).

While it is important to note that the evidence base for non-affirmative treatments of gender dysphoria in minors is also of low quality (Clayton 2022: 489), with similar methodological issues, ideological bias and gaps in understanding, there is also substantially less risk of iatrogenic harm from psychotherapy than physically invasive procedures, and the burden of proof should therefore be much higher for the latter. Given that one of these approaches to treatment involves age-appropriate talking- and play therapies, and the other involves suppression of one of the most significant life-stages, the often lifelong prescription of cross-sex hormones and irreversible elective surgery to removed otherwise healthy body parts, it does seem somewhat puzzling that the World Health Organisation cites reduction of stigma as the primary reason to replace gender identity disorder in children with gender incongruence in children, with the intention that the “[i]nclusion of gender incongruence in the ICD-11 should ensure transgender people’s access to gender-affirming health care, as well as adequate health insurance coverage for such services” (World Health Organisation 2023).

As well as being used to *treat* distress, these procedures came to be seen as a way to *prevent* distress: “it is not necessary for TGD people to experience severe levels of distress regarding their gender identity to access gender- affirming treatments. In fact, access to gender-affirming treatment can act as a prophylactic measure to prevent distress” (Coleman et al. 2022: 35). How did the grand palace that is youth gender transition come to be built on such shaky foundations?

The brain sex

While the brain undoubtedly has sexually dimorphic elements, the magnitude of most differences between the brains of males and females are small, and as a whole they are certainly much more similar than different (Ristori et al. 2020: 2). Furthermore, many of the areas in which there is significant variation seem to be implicated in the regulation of sex-specific functions such as sexual reproduction, childbearing and maternity, although the extent to which these anatomical differences impact behavioural and cognitive differences has also not been well established and there is currently little empirical evidence supporting the popular notion of a “male or female brain” per se (Ristori et al. 2020: 3).

Neuroscientific research into gender identity is rather limited, and often produces inconclusive or confusing results. This data is nonetheless important to highlight however, given that patients, clinicians and even researchers often frame gender identity as being located “in the brain”. This is noted by Wren, who describes the neurobiological explanations as one of the 4 major groundings in which patients conceptualise their experiences: “[m]any young transgender people bolster their identity claims with a belief that such evidence will soon be available to show they literally have ‘male brains in female bodies', or vice versa" (2014: 279). This notion of "being born in the wrong body" is also a central one driving top-down psychiatrisation of gender variance: "[s]ome professionals similarly place centrally in their work the hope that at some point physiological evidence will justify the treatment offered" (ibid.: 279).

Research in the field often takes a priori that biomarkers for gender identity will be located in the brain., because of the perceived stability of gender identity which may or may not correspond to the otherwise sexually dimorphic body. This can be seen as impacting research designs (such as not accounting for confounding factors like sexual orientation or exogenous sex-hormonal treatment), operational definitions of gender identity (such as using dysphoria/incongruence diagnoses or self-reported trans-identification) as well as motivated reasoning in the interpretation of results.

Over the past few decades there has been increasing interest identifying the brain areas likely implicated in gender identity by studying the brains of trans-identified adults. Published in *Nature*, an early example focused on the central subdivision of the bed nucleus of the stria terminalis (BNSTc), a sexually dimorphic structure which is implicated in sexual behaviour (Zhou et al. 1995). The post-mortem brains of 6 trans/identified males were found to have similar sized BNSTc to female rather than male controls, but although the authors contend that the size was not influenced by hormones in adulthood (ibid.: 68), all of the trans-identified subjects had been on years of cross sex hormones and all but one had their gonads surgically removed (their non-trans identified male controls had died only one and three months after orchidectomies for prostate cancer) (ibid.: 70). Despite this, the authors conclude that the "decreased size is related to the gender identity alteration" (ibid.: 70) and that their findings "supports the hypothesis that gender identity develops as a result of an interaction between the developing brain and sex hormones" (ibid.: 68). Although dimorphic, the BNST is first differentiated during puberty so would not alone account for childhood gender identity (Ristori et al. 2020: 2).

Later studies have also investigated anatomical differences in grey and white matter, including further studies looking at the BNST as well as the 3rd interstitial nucleus of the anterior hypothalamus (INAH3), which is implicated in maternal behaviour and gonadotropin secretion and again found to be smaller in trans-identified than non-trans-identified males by a study suffering from the same methodological limitations of small sample size and hormonally treated subjects (Ristori et al. 2020: 2).

Some neuro-functional studies have focused on children and adolescents. One study on non-treated gender dysphoric adolescent participants and sex-matched controls reported their findings “suggest a biological basis for both transgender groups performing in-between the two sexes” (Soleman et al. 2013: 1969) despite the only significant difference being gender dysphoric males producing more words on the phonetic fluency task than the other three groups (ibid.: 1969).

A number of studies have been conducted on the Dutch cohort of gender dysphoric children and adolescents. One such study looked at click-evoked otoacoustic emissions (CEOAEs), small “echo-like sounds that are produced by the inner ear in response to click-stimuli” with a weaker amplitude in males than females potentially as a result of prenatal testosterone exposure (Burke et al 2014: 1515). Because the sex-distinction is present in the womb, it is taken as an indirect indicator of prenatal testosterone exposure in a study of 47 children with early-onset gender identity disorder diagnoses and non-diagnosed controls. Results were mixed, with gender dysphoric boys testing closer to the female range, potentially indicating reduced testosterone exposure in utero, although the responses were not statistically different from either male or female controls and gender dysphoric girls also had stronger response in line with their sex (ibid.: 1520).

Again the abstract provides a little of what Abruzzese et al. term “the art of *spin*” (2023: 687) in summarising these mostly inconclusive results: “our results provide some evidence for the idea that boys with GID may have been exposed to lower amounts of androgen during early development in comparison to control boys” (Burke et al. 2014: 1515). This result is further inflated in a literature review through the rather misleading “[t]ranswomen displayed more female-typical OAE, confirming the hypothesis that they have been exposed to lower levels of androgens during early development compared to control boys” (Ristori 2020: 3). Aside from referring to the 5-14 year old boys as “transwomen” (none of them had been medicalised and likely not socially transitioned in line with the Dutch protocol at the time, and are referred to as “boys” throughout the study), it seems a bit of a stretch that the hypothesis was confirmed by non-significant results.

More recently there has been increased scepticism even within the Dutch researchers as to whether it’s possible to demarcate gender identity in the brain to justify medical intervention in minors. In a review of the Amsterdam clinic’s fMRI research, Bakker et al. return to their 2014 study which investigated sex-differentiated hypothalamic activations in response to olfactory androstadienone exposure. Sensitivity to androstadienone, an odorous male hormone, is higher in females reflected in increased activation of areas in the hypothalamus (2024: 4). In studying prepubertal and puberty suppressed children they found that "both boys and girls with GI showed hypothalamic responses typical of their experienced gender" (ibid.: 5), initially indicating that, functionally at least, the children seem to have brains more in line with the sex they identify with.

They contrast this with research that has established the same pattern in non-trans-identified homosexual subjects however, and given the fact that 85% of the children reported a homosexual orientation concede "perhaps our results reflect the sexual orientation of our subjects rather than their transgender identity" (ibid.: 5).

They also investigated the effects of exogenous testosterone treatment during common functional imaging tasks such as mental rotation and face-matching. After an average of two years of puberty suppression, no differences were found in gender dysphoric female children compared to age matched boys and girls in brain activation patterns during a mental rotation task (ibid.: 5) or amygdala lateralisation during a face/matching task (ibid.: 6), however following a year of testosterone treatment these subjects displayed activations more similar to the boys than girls (ibid.: 5-6).

Sex differentiated fractional anisotropy (FA) was also studied in GnRHa treated male adolescents. FA is a measure of water diffusion directionality in white matter, and is generally higher in males than females and adolescents than children. Despite FA actually being higher in untreated prepubertal boys with gender dysphoria than both control boys and control girls, the researchers took the lower values in gender dysphoric adolescent boys as "suggesting a salient neural correlate of gender incongruence" (ibid.: 7). This is likely a measurement of treatment response as opposed to gender identity however, as puberty suppression was negatively correlated with FA values, i.e. the more GnRHa that the child had received, the lower the FA (ibid.: 7).

Furthermore, they used the Tower of London task to measure prefrontal cortex development in puberty suppressed patients, Crucially, the study included aged matched untreated gender dysphoric controls, enabling for the demarcation of gender identity and treatment effects. As expected, control boys showed increased activation in the sex-differentiated regions of interest compared to control girls, with both sexes' gender dysphoric control groups falling in between the non-dysphoric male and female range. In the puberty suppressed groups however, suppressed males showed increased activation to suppressed females in these regions, but also in non-sex-differentiated regions (ibid.: 7). The authors note the potentially deleterious effects of puberty suppression on cognitive functioning, especially in the prefrontal cortex which undergoes much development during this period (ibid. 6), noting that in puberty suppressed males: "[t]his exaggerated activation, particularly in the dorsolateral prefrontal cortex in trans girls, might reflect an increased effort to complete the task since at the behavioral level, they made the most mistakes" (ibid.: 7). The more comprehensive control groups may well indicate that it was indeed treatment effects rather than gender identity biomarkers that was being measured. This is also shown in structural differences in line with identified sex in hormonally treated adults, indicating the plasticity of the brain in response to hormone changes even well into adulthood (Ristori et al. 2020: 4).

Agents which contribute to phychiatrisation

In understanding how such a paucity of evidence came to be seen as irrefutable proof for the necessity of medical intervention of childhood gender identity, it's important to examine the mutually reinforcing relations which exists between the agents involved. Central to the proposed process of psychiatrization is the positive feedback loop between agents and institutions operating bottom-up: "laypeople", patients, parents, charities, grass roots advocacy groups, and top-down: "professionals", public health bodies, governments, legal systems, media, drug companies etc.

The discursive impact of these relationships is recognised by some clinicians, with Wren noting "[t]he 'human kinds' (Hacking, 1999) we help to realise and define in gender identity clinics are products of legislation, medical research, psychiatric practice, activism, newspaper articles, television 'soaps' and, crucially, the activism of trans people themselves" (2014: 285).

While much of this can be seen as an emergent process with agents acting with the best of intentions, there is also some indication of more explicit intentionality, for example the undisclosed financial interest in the pharmaceutical industry among the task force for the DSM-5-TR (Davis et al. 2024). Speculating upon the possible motives of any particular agents is well beyond the scope of this paper, but the remainder of this chapter will attempt to explore just a few of these interconnected agents which produce, disseminate, and codify the ideas which have influenced the current state of youth gender medicine.

Academia

One of the major sources of top-down agents identified as contributing to psychiatrization is academia (Haslam et al. 2021: 5). It is impossible to understand modern popular discourse on gender identity without accounting for the influence of queer theory, which has also had a profound impact on the course of medical practice and scientific enquiry. The application of post structuralist ideas to gender identity is perhaps best exemplified by one of its most influential proponents, Judith Butler, who postulated that the very notion of sex is itself a construct of gender: "[g]ender ought not to be conceived merely as the cultural inscription of meaning on a pregiven sex [...]; gender must also designate the very apparatus of production whereby the sexes themselves are established." (1990: 10).

Butler sees scientific epistemology as an extension of the power structures that continue to marginalise groups further down the intersectional hierarchy. Thus, gender is postulated as an oppressive socially constructed system through which the notion of sex was produced in order to justify itself as "natural":

> Are the ostensibly natural facts of sex discursively produced by various scientific discourses in the service of other political and social interests? If the immutable character of sex is contested, perhaps this construct called "sex" is as culturally constructed as gender; indeed, perhaps it was always already gender, with the consequence that the distinction between sex and gender turns out to be no distinction at all (ibid.: 10)

The result of this complete decoupling of gender from "arbitrary" sex is that the concept of gender identity begins to become disembodied altogether: "[w]hen the constructed status of gender is theorized as radically independent of sex, gender itself becomes a free-floating artifice, with the consequence that man and masculine might just as easily signify a female body as a male one, and woman and feminine a male body as easily as a female one (ibid.: 10)

In turn, these ideas have made their way into the philosophy of science. Sanz, for instance, makes the case that the "biological fact" of sex as binary rather than spectral is little more than a construct of "Western science" (2017: 1). Sanz surveys the different ways by which sex has been classified (anatomical, gonadal, hormonal, chromosomal, neural) and concludes that none of them adequately account for deviations from the binary sex model and therefore reveal the constructed nature of sex as a concept:

> despite all the dead ends and the past and current controversies about the *supreme* variable, something has remained unchallenged since the birth of biology in the eighteenth century: *the assumption of the dichotomous character of sex*. The definition of sex as a binary, while many times challenged, has stubbornly remained at the core of scientific research on sex. In addition, I argue that while the multiplication of variables has made the definition of sex more complicated over the years, it has also had the paradoxical effect of reinforcing the binary instead of disrupting it (ibid.: 19)

The influence of such ideas is readily apparent from the jargon employed in both scientific research and public health communication A considerable proportion of the literature, for instance, uses the phrase "sex-assigned at birth" in lieu of simply sex, or biological sex when a distinction is considered necessary.

The term also has its origin in DSD[13] research (Money et al. 1955), where the ambiguity involved in the initial "assignment" of sex, often by primary healthcare providers, is accurately captured by the word. For the overwhelming majority of births however, including for the vast majority of individuals who later become trans-identified (Chiniara et al. 2018; Carmichael et al. 2021), sex is unambiguously determined and recorded at birth rather than assigned. Not only is the qualification redundant, it also contributes to a misleading idea about the mutability and arbitrariness of sex.

Clinical guidelines for staff at the Boston Children's Hospital define gender identity as "the internal perception of one's gender, and [...] how much they align or don't

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[13] Disorders of Sexual Development (DSDs) are a group of between 40 and 60 congenital conditions leading to atypical development of sex characteristics. Depending on how liberally or restrictively the scope is applied, DSDs effect between 0.018%, (Sax 2002) and 1.7% (Fausto-Sterling 1993) of the general population. The term intersex is often also used, although here DSD is preferred as although primary sex characteristics may be ambiguous, people with DSDs remain categorisable as either male or female.

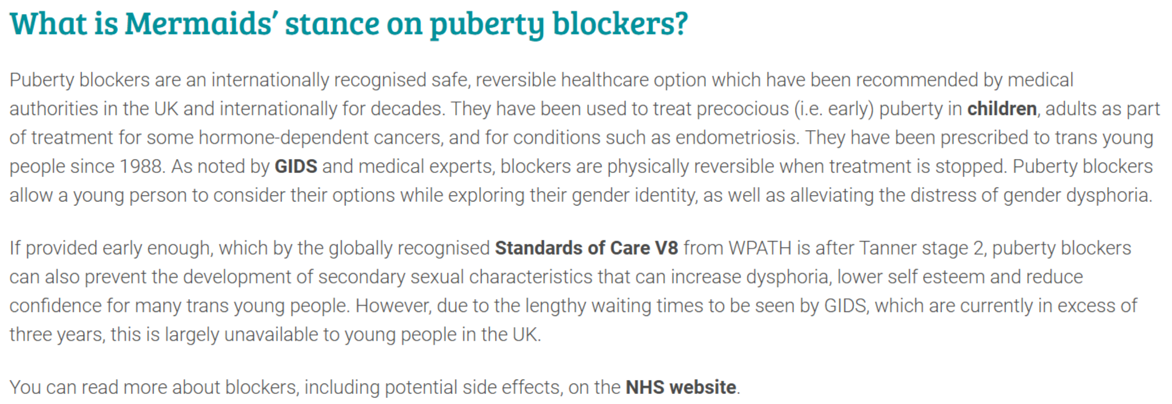
align with what they understand their options for gender to be”, going on to add “[c]ommon identity labels include man, woman, genderqueer, trans and other diverse gender identities. Gender is not to be confused with sex assigned at birth or “biological sex”” (BCH 2017). Note that scare quotes were deemed necessary for the notion of “biological sex”, but not for “sex assigned at birth”.

Activists

Philosopher Heather Brunskell-Evans sees the very concept of the “transgender child” as a construct representing the synthesis of two distinct groups with very different conceptions of gender identity. The first group is represented at the top level by the more radical fringes of gender studies scholarship and its bottom-up correlate of critical social justice activism, whereas the other group is comprised of more clinically focused bio-medical researchers at the top level and grass roots parent-led advocacy groups at the bottom level: “the transgender child and young person has emerged out of the fast-evolving social and political landscape of disputed biological truths, the hegemony of queer theory and trans affirmative lobbying and trans activism” (2019: 648).

She describes two different philosophies of activist organisations which exert bottom-up influence on the production of guidelines and provision of care for minors. She summarises their differing underlying conceptualisations of gender variant children as, on the one hand “the biological transgender child who requires medical diagnosis and treatment” (2019: 648) and, on the other, “the existential transgender child who bravely sensitizes the rest of us to the complexities of gender” (ibid.: 648-649).

The first is typified by the British charity Mermaids, a parent led organisation which advocated for “trans, non-binary and gender-diverse children, young people and their families since 1995” (Mermaids 2023). She characterises this type of advocacy as “biological” because it conceives of gender identity as residing in the brain, embraces psychiatric diagnoses such as gender dysphoria, and advocates for medical interventions such as hormones and surgeries. She documents a number of concrete examples where Mermaids have been instrumental in affecting how healthcare is provided to gender variant children, including the direct influence that they have had on the Endocrine Society guideline’s recommendation of puberty blockers, as well as on lowering the age at which they are prescribed by the NHS from 16 to the onset of puberty (ibid.: 646).



What is Mermaids' stance on puberty blockers?

Puberty blockers are an internationally recognised safe, reversible healthcare option which have been recommended by medical authorities in the UK and internationally for decades. They have been used to treat precocious (i.e. early) puberty in **children**, adults as part of treatment for some hormone-dependent cancers, and for conditions such as endometriosis. They have been prescribed to trans young people since 1988. As noted by **GIDS** and medical experts, blockers are physically reversible when treatment is stopped. Puberty blockers allow a young person to consider their options while exploring their gender identity, as well as alleviating the distress of gender dysphoria.

If provided early enough, which by the globally recognised **Standards of Care V8** from WPATH is after Tanner stage 2, puberty blockers can also prevent the development of secondary sexual characteristics that can increase dysphoria, lower self esteem and reduce confidence for many trans young people. However, due to the lengthy waiting times to be seen by GIDS, which are currently in excess of three years, this is largely unavailable to young people in the UK.

You can read more about blockers, including potential side effects, on the **NHS website**.

Figure 11: Archived version of Mermaid's Frequently Asked Questions section (Mermaids 2023) in which it directly points to the use of puberty blockers by health services and their recommendation by guidelines as evidence of their safety, despite having been instrumental in both.

This can be seen as a concrete example of a circular feedback mechanism underlying psychiatrization, whereby a flawed study produced by top-down researchers is utilised by bottom-up agents who, having lobbied a top-down medical body to recommend a treatment and a health service to provide it more widely, can further point to these endorsements as proof of the treatment's efficacy: "because laypeople always need to mobilize agents of the top-level to achieve effective changes (e.g., of the DSM), [...] medical expertise has to be incorporated at some levels" (Beerker et al. 2021: 6).

The second type of activism described by Bruskell-Evans, exemplified by Gendered Intelligence, is rooted in queer theory and existentialism (2019: 647). Because gender identity is conceptualised by this second group as unmoored from sex, much less emphasis is placed on the utility of psychiatric diagnosis and medical treatment is seen as a lifestyle option rather than an urgent necessity: "[t]he child is freed from any imperative for medical intervention, although it could nevertheless be a personal choice, since it is identity not the body which is of importance". Although more active on the level of academia, education and culture, these ideas have come to be dominant at youth gender clinics (Wren 2014; Cass 2024).

Clinicians

Beeker et al. provide a description of how agents working at the top-level are crucial for enabling agents further down affect change in a desired direction which leads to a blurring of the professional and advocacy roles, including academics and "clinicians who identify as activists for a certain kind of suffering and become "moral entrepreneurs". Top level agents may thus even actively encourage bottom-up psychiatrization" (2021: 6). Youth gender clinics can be seen as a textbook example of this entwining between activist organisations and activist clinicians creating the breeding ground for ever increasing psychiatrization (Abruzzese 2023: Bell 2020; Brunskell-Evans 2019; Clayton 2022).

Wren outlines the influence postmodern concepts had began to have on youth gender medicine by 2014: "those working clinically with trans adolescents may experience a troubling tension between, on the one hand, a view of sex and gender categorisations as undecidable and fragmented (as postmodern theory suggests), and, on the other hand, the apparent need of many for a coherent and settled sense of self" (271).

Despite its criticism of this exact relationship, even the Cass Review was explicitly influenced by these same advocacy organisations, which in turn had a clear impact upon the language used in the report: "an extensive programme of engagement has informed the Review. A mixed-methods approach was taken that prioritised input from people with relevant lived experience and organisations working with LGBTQ+ youth or children and young people generally" (Cass 2024: 26).

Because so much of the research takes place within these same clinical settings, much of the epistemological understanding is also shaped by and derived from this activism, even when it is at odds with robust scientific practices. A particularly conspicuous example of this lack of separation is psychiatrist Dr Jack Turban, who acts on the level of knowledge formation as a researcher, implementation as a clinician, and populariser as an activist.

Turban's professional website lists his extensive research credentials, appearing in extremely prestigious journals such as *The New England Journal of Medicine, JAMA, JAMA Pediatrics, JAMA Psychiatry, The American Journal of Public Health,* and *The Journal of the American Academy of Child & Adolescent Psychiatry*. These in turn have been cited in "major civil rights cases", legislation, and United Nations' and United States government guidelines. Clinically, he is the founding director of the Gender Psychiatry Program at the University of California, San Francisco. As well as writing for popular publications such as *The New York Times, CNN, The Los Angeles Times,* and *Scientific American*, his work has been quoted "over 100 times" by popular media including *The*

Daily Show with Trevor Noah, NBC News, Rolling Stone, The Washington Post, Vox, Reuters, GQ, Vogue, CBC, and Vanity Fair, and consulted for television shows including *60 Minutes, The Problem with Jon Stewart, and Last Week with John Oliver*. (Turban 2025).

While it may seem perfectly natural that an expert in a particular field would be called upon to provide insights for legal cases and policy prescriptions and clarity in matters of public education, the mixing of all these levels creates a circularity whereby ideologically driven research is implemented in clinical settings and popularised in the media, thereby presenting the impression that there is a much more robust evidence base than there is, which in turn produces more demand for the very same services.

This gives the appearance of settled science, whereas many of the theoretical and philosophical underpinnings of these practical professions are in fact extremely contested, and the methodology of the research extremely flawed. So much of the research originates from the same teams of “clinicians with vested intellectual, professional, and financial conflicts of interest” (Abruzzese et al. 2023: 688-689), who are at the same time providing treatment justified by that research while framing it as “medically necessary healthcare” in the public consciousness.

One of the most influential proponents of gender affirmation is Johanna Olson-Kennedy. A “frequent expert witness in court cases who is often quoted in the media”, she heads up the world’s largest initiative researching transgender youth and is president elect of WPATH’s sister organisation USPATH (The Economist 2024b).

WAPATH’s SOC 8 uses one of her studies on transmasculine youth to support the assertion that “[g]ender-affirming interventions are based on decades of clinical experience and research; therefore, they are not considered experimental, cosmetic, [rather] are safe and effective at reducing gender incongruence and gender dysphoria” (Coleman et al. 2022: 18).

For the study she defines the term *transmasculine youth* as “those assigned a female sex at birth who have a gender identity along the masculine spectrum” (Olson-Kennedy et al. 2018: 432). In this explicitly dualistic conception of “misalignment” between an embodied sex and a gendered mind, gender identity is clearly seen as taking precedence, with surgical intervention serving as a way to “bring the physical body into better alignment with the experienced gender” (ibid.: 432). Through this frame, changing the body to fit the mind is seen to be the only ethical solution: “[h]ormone therapy and surgery have been found to be medically necessary to diminish gender dysphoria” (ibid.: 432). The citation supporting this “medical necessity” leads to WPATH’s SOC 7, which itself relies heavily on the Dutch studies.

In the current instance, the individuals in need of “gender confirmation” (elective double mastectomy) are females between the ages of 14 and 25 (mean age of 17 and a half). A large percentage of the surgical cohort are minors, with 50% being under the age of 18 and 25% being only fifteen years old or younger.

The study reports significantly reduced rates of chest-related gender dysphoria on a custom Chest Dysphoria Scale (2018: 434) when compared to non-surgical patients. It should however be noted that this self-reported satisfaction was at a very short follow-up time (85% of instances 2 years or less) and had a high loss to follow-up (27%). Follow-up data for the study was collected between June and December 2016, and no follow-up has been conducted to ascertain longitudinal outcomes in the decade since.

Whereas the inclusion criteria makes no mention of psychological functioning (which is in line with SOC 8 guidance that even severe psychological problems should not preclude treatment if the patient is deemed capable of giving consent (Coleman et al. 2022: 172)), it can be inferred that the majority of females presenting at the clinic do so only well into adolescence: “Most transmasculine youth are accessing care after or near completion of breast development, necessitating surgical intervention for those who wish to have a masculine-appearing chest contour.” 432. It would therefore seem possible that they would fit the high pathological co/morbitity profile of adolescent-onset female patients elsewhere (Kaltiala et al. 2015; Zucker et al. 2012b; Littman 2019).

This follows a pattern of either failing to follow-up in a systematic manner, suppressing findings which do not show convenient results (Ghorayshi 2024b). or even directly manipulating data (The Economist 2024a). In 2015, Olson-Kennedy commenced a study blocking the puberty of 95 children. The children, a quarter of whom had depression or anxiety diagnoses, were an average age of 11 at the time of puberty suppression. Despite the participants now being adults, the results of the study have never been published because “she was concerned the study’s results could be used in court to argue that “we shouldn’t use blockers because it doesn’t impact them”” (Ghorayshi 2024b).

This ideological bottleneck produced by the researcher-clinician-activist distorts the available knowledge base and leads to confirmation bias:

> Dr. Olson-Kennedy noted that doctors' clinical experience was often undervalued in discussions of research. She has prescribed puberty blockers and hormonal treatments to transgender children and adolescents for 17 years, she said, and has observed how profoundly beneficial they can be. Although the N.I.H. [National Institute of Health] studies are large, she said, "these are minuscule compared to the amount of people that we've taken care of" (ibid.)

Even proponents of the gender affirmative approach acknowledge the impact that Olson/Kennedy's California clinic has had on the increase in treatment:

> Another contributing factor that may explain the observed results is the leading role of Kaiser Permanente in providing gender affirming care. Kaiser Permanente greatly expanded their coverage of gender-affirming treatment in 2010, the year that coincided with an accelerated increase in the proportion of TGNB people among adults 18 to 25 years old in our study (Zhang et al 2021: 394).

Government

Political and public health decisions should, ideally, be based on solid empirical evidence, but the production of this evidence base is obviously also highly exposed to a number of incentives not necessarily ideal for arriving closer at truth.

The trend over the last two decades has been in favour of gender affirmation at younger and younger ages (Levine et al. 2021: 718) for increasingly wide scope of presentations (Clayton 2022: 483). An updated SOC 8 removed both the need for distress and all minimum age requirements for all medical interventions apart from phalloplasty (the construction of a facsimile of a penis) (Coleman 2022: 566). This was later revealed to be as a direct result of political pressure from the US Department of Health. The removal was originally refused on medical grounds before being corrected within days of publication under threat of defunding (Ghorayshi 2024a).

Numerous leading medical institutions across Anglophone countries have fully adopted the affirmative model as the primary (Teffer et al. 2018; National Health and Medical Research Council 2018), sometimes sole (Government of Canada 2024) framework for treatment of gender dysphoria, yet many individuals continue to raise concerns surrounding methodological limitations of the studies underpinning the model (Abruzzese et al. 2023), as well as potential politically driven bias and an alleged atmosphere of hostility toward opposing perspectives in clinical and research settings (Amos 2024; Bell 2020). In many cases this has been accompanied by changes to law (White 2024), or attempted changes to law (Cook 2023), to recognise the primacy of gender identity over sex in determining how an individual is treated by public and private institutions.

The publication of the final Cass Report in 2024 lead to a ban on the prescription of puberty blockers in the UK, which followed similar bans across Scandinavia after their own respective reviews. The fact that the report recommended their use only in high quality clinical trials over a decade after their use had become widespread despite the absence of such trials shows how strong the impulse to medicalise gender identity still is.

The internet and social media

The impact of the internet, particularly social media, on the trend at hand almost defies quantification, and is certainly well beyond the scope of this paper, which will instead briefly explore some potential avenues of further research. Coincidently, perhaps, the current trends track almost exactly with increasing adoption of early social media platforms such as Tumblr, Reddit, YouTube in the late 2000s and TikTok etc. more recently. For an initial analysis of social media influences see (Littman 2019; Littman 2021).

Aside from social media, the internet more generally has become the main source of information for many people globally. Synthesising her experience with patients at the UK's gender clinic, Wren identifies 4 major perspectives which "are called on to bolster the decision to support physical intervention for young trans people" (2014: 277). One of these perspectives broadly aligns with those discussed earlier, and represents a view that the child has "privileged access" to their gender identity and should therefore have sole autonomy over treatment decisions, whereas the other three have their foundations in "empirical research work, versions of which have found their way into the public discourse about transgender and may be drawn on by young people and their parents who are often avid consumers of internet-based sources of information" (ibid.: 278).

An example of this kind of information can be seen in a simple google search for "puberty blockers". As of May 2025, region UK, the first result returned is from the Mayo Clinic, a hospital consistently ranked the best in the US which also operates extensive research and public health information. The treatment is recommended for "transgender and gender-diverse youth" from the onset of puberty "around age 10 or 11". This, already, is a huge departure from the Dutch model, with the presumption that the "youth" is trans, and the age lowered to the onset of puberty.

Despite there having never been long term studies on their physical impact, and the very high continuation of medical treatment, the website states "GnRH analogues **don't** cause permanent physical changes. Instead, they [offer] a chance to explore gender identity. It also gives youth and their families time to plan for the psychological, medical, developmental, social and legal issues that may lie ahead". The next section contradicts this statement by stating GnRH use "**might** have long-term effects on: […] Fertility, depending on when the medicine is started" [emphasis added in both instances]. While potential downsides are entirely discussed in physical terms, the benefits it lists as "Improve mental well-being. Ease depression and anxiety. Improve social interactions with others. Lower the need for future surgeries. Ease thoughts or actions of self-harm" (Mayo Clinic 2023).

The website further states that "[t]aking puberty blockers alone, however, without other medical or behavioral treatment, might not be enough to ease gender dysphoria" (ibid.), and lists hormones and surgeries as these treatments.

There is no reference to any controversy surrounding the topic in general, any alternative treatments for gender dysphoric children, no mention of the executive order restricting the drug's use in the country where the information is coming from, nor to the drug's restriction in the country where the information is being consumed.

Concept creep

In the context of psychiatrization, Haslam et al. propose the mechanism of concept creep, which they see as expanding both vertically to encompass less intense forms of a previously narrowly defined phenomenon, as well as horizontally to apply new phenomena which are qualitatively distinct from what was previously understood by the concept (Haslam et al. 2021: 2). It is possible that both of these axes are at play in the formation of today's "transgender child".

Vertical concept creep

In the case of vertical concept creep, girls who would have previously been seen as "tomboys" or boys who might have been described as "effeminate" are increasingly seen by the adults around them as potentially having a sense of gender identity at odds with their sex, or encouraged to conceptualise these behaviours and interests as indicators that they were "born in the wrong body". This is especially true in cases of children socially transitioned before the age at which gender constancy is typically reached (Fast & Olson: 2018).

Steensma et al. followed up on children who were identified as gender variant from the general population, rather than those clinically referred. Initially conducted in 1983, a representative cross-section of Dutch children were recruited through the municipal register in South Holland. Parents and caregivers answered a checklist of 113 questions designed to measure general behavioural and emotional problems in this population. Gender variance was identified by two of these questions: "Behaves like opposite sex" and "Wishes to be of opposite sex" (Steensma et al. 2013b: 2725). 24 years later in 2007, the authors followed up on those aged between four and twelve during the initial study, who were then in their late-twenties to mid-thirties.

Gender variance during childhood was identified in 51 (6%) of the 879 participants followed up on, of whom none were trans-identified as adults and 6 were homosexual (12%) (ibid.: 2727). In fact, the only trans-identified individual was from the non-gender variant group in childhood, and had a heterosexual orientation (ibid.: 2729). Overall, homosexuality was significantly lower in the non-gender variant group (1.3%), but gender discomfort – measured by questions such as "In the past 12 months, did you feel unhappy with the fact of being a man or a woman?" (ibid.: 2726) – was actually higher, occurring in 31/828 of the non-gender variant group as opposed to just 1/51 of the gender variant group (she was also homosexual).

In their conclusion, the authors suggest that "gender-variant behavior and interests do not necessarily indicate gender identity disorder, can be seen as ordinary human diversity, and do not need clinical attention" (ibid.: 2731) Furthermore, they recognise the potentially damaging impact not just of forcing conformation to gender roles, but also of over affirmation of cross-sex identity at a young age: "[i]nstead of suppressing the child's gender variance or promoting a complete social transition that is difficult to reverse (including a name change, using pronouns of the other gender), parents could be advised to adopt a more balanced, neutral approach" (ibid.: 2731).

Considering the strong correlation between gender variance in early childhood and same sex attraction in adulthood seen cross culturally (Bartlett & Vasey 2006), might it be society's discomfort with gender non-conformity rather than individuals' discomfort with gender identity that fuels this medicalisation, in other words: "has the availability of the Dutch protocol itself created the "need?" (Abruzzese et al. 2023: 687).

Horizontal concept creep

On the horizontal axis, the impact of concept creep on notions of gender identity can be seen in clinical diagnoses, public health communication and scientific research. In terms of diagnoses, adolescent-onset gender dysphoria in females was almost absent in the literature prior to 2012 (Zucker et al. 2012b: 153) but now makes up a plurality diagnoses of the condition in under 18s (see [Figs. 6a-d]).

Horizontal concept creep can also be illustrated by the widening of gender identity to identities outside of male or female, such as the Mayo Clinic's definition of gender identity as "the internal sense of being male, female, neither or some combination of both" (Mayo Clinic 2023). The proposition *each person has an internal sense of being X, Y; neither X nor Y; or some combination of X and Y* holds true for any X and Y.

The SOC 7 is particularly relevant to the current discussion of horizontal concept creep as it was found to have directly influenced almost every other set of clinical guidelines for the treatment of gender distressed children (Cass 2024: 28). Its definition of gender identity is: "[a] person's intrinsic sense of being male (a boy or a man), female (a girl or a woman), or an alternative gender (e.g., boygirl, girlboy, transgender, genderqueer, eunuch)" (2012: 221).

Because gender dysphoria is defined in relation to gender identity, a widened definition of the latter must necessarily inflate the former. The historical literature refers almost exclusively to binary cross-sex identification in minors, with this becoming an increasingly prevalent identification over the last decade or so. It would seem implausible, for instance, that the Dutch clinicians would have expected their protocol to be used to affirm a eunuch gender identity. Despite this, SOC 8 has a whole chapter devoted to the treatment of eunuch gender identity (Coleman et al. 2022: 88-93) as “part of the gender diverse umbrella” for which there is a strong need for “medically necessary gender-affirming medical and/or surgical treatments” (ibid. 88) which are outlined in detail (ibid.: 90).

Concept creep has been particularly associated with an increased perception of harm, and a widening of harm related concepts, suggesting that the current cohort may be particularly susceptible: “[h]olding broad harm concepts is associated with being female, politically liberal, empathetic, concerned about injustice toward others (but not preoccupied with injustice towards the self), likely to endorse harm based morality, and high Neuroticism” (Haslam et al. 2021: 2-3).

“Poor generalizability/applicability to currently presenting cases”

Of all Abruzzese et al.’s criticisms of the Dutch studies use as evidence for gender affirmation’s efficacy, this one perhaps provides the biggest insight into the phenomenon currently under investigation. The most common profile of the adolescents presenting at youth gender clinics since the publication of the Dutch studies is now “an adolescent with postpubertal emergence of a transgender identity and significant uncontrolled mental health comorbidities” (Abruzzese 2023: 648) and adolescents meeting this profile (in much smaller numbers) were considered unsuitable for sex-reassignment by the researchers because of “concern that the risks of early gender transition might outweigh the benefits” (ibid.:: 684).

Clinics are therefore applying a treatment protocol developed for one group, which even then showed highly questionable results, to an entirely different cohort. Based on this earlier cohort, the Dutch researchers believed that:“[i]n nearly all cases seen, adolescents age 12 and up come to the Amsterdam gender identity clinic with a desire for gender reassignment. While gender dysphoric feelings in younger children will usually remit, in adolescents this is rarely the case” (de Vries et al. 2012: 310). The adolescents they were describing were teenagers (mostly boys) who had behaviours and interests atypical for their sex from early childhood, with distress increasing at the onset of puberty (de Vries &

Cohen-Kettenis 2012). They were almost all same sex attracted[14] (de Vries et al. 2011: 3), and had a relatively normal distribution of psychological co-morbidities.

Taking their observation – that gender dysphoria does not remit in this cohort of adolescents – as true for the sake of argument, there is little reason to suppose that this would hold equally true for the current cohort of mostly females with fairly sex-typical pre-puberty childhoods (Littman 2019) significantly lower levels of same-sex attraction (Wood et al. 2015), a preponderance of non-binary gender identification (Gulapo 2021) and significantly higher levels of psychological co-morbidities (Kaltiala et al. 2015).

Although adolescent-onset of gender dysphoria is not entirely novel, the large scale of its prevalence definitely is. The UK saw a 71-fold increase in referrals of adolescent females in the 7 years between 2009 and 2016 (de Graaf et al. 2018: 1303) (as opposed to a near 18-fold increase in adolescent males), with clinicians warning of the need to "monitor the influence of social and cultural factors that impact on their psychological well-being" (ibid.: 1304).

A recent German study of insurance billing found a 700% increase in diagnoses of gender identity disorders in 5-24 year olds between 2013 and 2022 (Bachmann et al. 2024: 370). Like elsewhere, much of this rise was made up of females with symptoms first presenting in adolescence (ibid. 370). In over 72% (76% for females) of cases this was accompanied by at least one additional psychiatric diagnosis, most commonly depressive and anxiety disorders, emotionally unstable personality disorder of the borderline type, attention-deficit/hyperactivity disorders, and post-traumatic stress disorders (ibid. 370).

Five year persistence rates were less than 50% in both males and females, but was especially pronounced (at only 27%) for adolescent females in the 15-19 age range at initial diagnosis (ibid. 370). Although the authors refrain from commenting whether the increase is caused by either decreased stigmatization or overdiagnosis, they point to these extremely low persistence rates in cautioning against irreversible medical intervention (ibid. 371).

And yet, in a context of gender affirmation, this cohort is subjected to much higher rates of medicalisation with less safeguards against "false positives": "[r]ather than focusing on predicting clients' future gender identity, psychologists should strive to best support them in the here-and-now. That means respecting youths' expressed gender

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[14] In the Dutch study, 97% of the initial 70 puberty blocked children were same sex attracted (including 100% of females – 89% of which exclusively) (de Vries et al. 2011: 3).

identity, supporting children who wish to socially transition, and facilitating access to medical transition among adolescents" (Ashley 2021: 9).

This rather flippant approach to medicalisation downplays not only potential psycho-social impact of early childhood social transition but also the serious physical impacts, including sterility, that these treatments entail, while at the same time overestimating the ease of reversal of hormonal treatment and surgical procedures.

Ethics of social and medical transition in minors

Social transition

Social transition refers to the process of "living as" the other sex without necessarily medically or surgically changing the body. It usually involves changes in appearance more stereotypically associated with the other gender (hairstyle, clothing etc.) as well as requesting or insisting that others use a different name and the third person pronoun of the desired sex when referring to the person.

In autonomous adults this can be facilitated by the person themselves, but due to the nature of childhood this requires significantly more input from the adults in the child's life, especially parents, teachers and other members of the family and community.

Because of the low rates of persistence of gender dysphoria in young children, under the "watchful waiting" paradigm the social transitioning of this group was seen as inadvisable. It was known even to the Dutch clinicians that early social transition made it extremely difficult for a child's sense of self to evolve out of the cross-sex identification, and therefore recommended that "young children not yet make a complete social transition (different clothing, a different given name, referring to a boy as "her" instead of "him") before the very early stages of puberty" (de Vries & Cohen-Kettenis 2012: 307-308).

Their logic was that there was a small group who would continue to have gender dysphoria into adulthood (for which they would require treatment) and a much larger group with "nonpersisting gender dysphoria". They therefore believed that social transition would make a reversion to the original gender role unnecessarily complex for this latter group (ibid.: 308). Although these two groups were indistinguishable pre-puberty, it was believed that with the onset of puberty the "true" dysphoria would become apparent in the former and dissipate in the latter.

Early social transition was seen as inappropriate not only because it solidified a cross-sex identity in the "not truly transgender" group, however, but also because it made it harder for the children in the smaller “truly transgender” group to comprehend the medical interventions which were seen as necessary to align the body with the gender identity:

> some children who have done so (sometimes as preschoolers) barely realize that they are of the other natal sex. They develop a sense of reality so different from their physical reality that *acceptance of the multiple and protracted treatments they will later need is made unnecessarily difficult*. Parents, too, who go along with this, often do not realize that they contribute to their child’s lack of awareness of these consequences [emphasis added] (ibid.: 308)

This is a perspective still rooted in earlier understandings of gender identity as a cognitive awareness of one’s own sex, one which is occasionally prone to errors as cognition develops. A contrasting view was already becoming dominant however, especially in the United States, which saw gender identity as innate and essentially fixed from birth, even though the degree to which it is expressed or even acknowledged relies on the permissiveness of the corresponding society.

This version of the concept is exemplified by psychologist Diane Ehrensaft’s notion of the “true gender self”, which “begins as the kernel of gender identity that is there from birth, residing [...] most importantly in our brain and mind” (2012: 342). Although she acknowledges that environmental factors may influence gender identity, for her, “true gender” is fixed and unchanging from birth: “its center always remains our own personal possession, driven from within rather than from without” (ibid.: 342). This, naturally, she contrasts with the “false gender self”, which she describes as “the face a child puts on for the world” which “run[s] the gamut from the cisgender boy who puts on a macho mask to empower himself and please his Marine dad to the transgender child who hides dresses in the closet to avoid punishment from disapproving parents” (ibid.: 342).

Because gender identity is inborn in the “mind”, it is seen as the “true” sex of the individual which should therefore be affirmed as soon as it is discerned. Advocates of gender affirmation see the child as the only person capable of knowing what their innate gender identity is, that no external factors lead to the development or persistence of this core identity (although they influence its expression), and that any decision to bring the body in line with the identity should therefore be made by the child itself:

> There is now a little person named Sophie enrolled in kindergarten as a girl and by parent and teacher reports she is doing quite well. As Sophie grows older, she will have to decide, with the help of her parents, whether and to whom to disclose that she had once been Brady; whether to take hormone blockers; whether to take cross-sex hormones; whether to have surgery (Ehrensaft 2012: 354)

There does seem to be a strong link however between being transitioned in early childhood and persistence of gender dysphoria into adolescence well beyond that which would be considered by chance based on pre-affirmative persistence rates. In a Finnish study, all of the children already socially transitioned at time of assessment expressed certainty about the need for medical intervention (Kaltiala et al. 2015: 4). In another relatively large sample of 317 American children socially transitioned in pre-pubertal childhood (at 3-12 years old), almost all (97.5%) were still trans-identified five years later (Olson et al. 2022: 4) and many of them had gone on to be medicalised. More than a third of those included in this sample (124 children) were socially transitioned before the age of 6, with a 95% persistence rate in this subset (ibid.: 4).

Only 8 of the initial 317 socially-transitioned children desisted in their cross-sex identification, with the majority of these desisting before the age of 9, and the remaining before the age of 11 (ibid.: 4). Furthermore, because of the young age of the inclusion criteria, the demographic makeup of the participants is much closer to the historical rather than current cohorts (i.e. 2:1 male to female ratio, low levels of psychological co-morbidity) (ibid.: 7), suggesting that similar high levels of desistance and homosexuality might have been seen in adulthood had they not been socially transitioned at such a young age.

A Dutch study found significant correlation between social transition and persistence of gender dysphoria from childhood into adolescence, especially in males (Steensma et al. 2013a: 586), and that the persisters were more likely to have a homosexual orientation (ibid.: 587).

The Cass Review also stated that social transition should not be seen as a neutral intervention, as it has the potential to concretise cross-sex identification and therefore increase the likelihood of persistent psychological distress and/or subsequent medical interventions. (Cass 2024: 31). Many children who are currently socially transitioned during early childhood and medicalised at the onset of puberty do not even meet the clinical criteria for gender dysphoria, with parents often perceiving the diagnosis as unethical and/or not required for affirmation of the desired gender and social transition (Olson et al. 2022: 3).

Far from being "progressive", childhood transition can be seen as reinforcing regressive sexist and homophobic stereotypes. Through social transition, gender non-conformity is reconceptualised as conforming to the opposite gender, rather than widening the scope of acceptable behaviours within each gender. The groups most likely to be affected are gender non-conforming young children who may have previously disproportionately grown up to be homosexual, and adolescent girls who fit a similar profile to those affected by other distresses which manifest on the body such as eating disorders and cutting. This is further reinforced by many research projects focused on gender dysphoric children, for example The Trans Youth Project, which already take for granted that they *are* trans.

Even if there does turn out to be biological identifiers of misaligned gender identity, none of these children have ever been screened for them and laboratory tests have shown that there is no indication that external anatomical or hormonal physiology is not well within the normal hormonal range for their sex (Chiniara et al. 2018; Carmichael et al. 2021). Social transition in early childhood is particularly unethical, given that the child may not even realise that they are the sex that they are, leading to increased distress for dysphoric children during puberty, which is a confusing tie for many children anyway: "[p]ersisters indicated that they believed that they were the "other" sex, and the desisters indicated they wished they were the "other" sex" (Steensma 2013a: 588).

One of the major explanatory models for the correlation between trans-identification and psychological ill health is the Gender Minority Stress Model (Delozier et al. 2020; McConnell et al. 2018). The framework states that psychological ill health results from an individuals membership of a gender minority in a binary focused society hostile to gender nonconformity, and distinguishes between distal and proximal stressors. Distal stressors are directed from external society arising from the individuals' minority status and includes overt and covert discrimination, ostracisation and non-affirmation, whereas proximal stressors are internal on the level of the individual themselves such as internalised transphobia, fear of discrimination, concealment of gender identity etc. (Delozier 2020: 843).

A major problem with the model however, is that it fails to describe the increase in psychological co-morbidities for trans-identified youth during a period of increased societal acceptance (i.e. reduction in distal stressors). Again, it is possible that an increased exposure to social media at this time lead to an increase of perception of victimisation (i.e. proximal stressors) that was not necessarily representative of societal attitudes as a whole compared to previous generations in every country where this worsening mental health is seen (Adamczyk & Liao 2019). The directionality of causation between trans-identification and poor mental health is largely presumed, and yet the certainty that most phycological problems are caused by minority stress is used to promote gender affirmation as medically necessary:

> Parents may weigh more heavily the risks of gender-affirming medical treatment (e.g., hormone blockers, gender-affirming hormone therapy, surgery) without a clear understanding of minority stress processes, which pose physical and psychological risks to their child. Helping parents affirm their child's gender exploration will bolster resilience" (Delozier 2020: 845)

That this "gender exploration" happens in the context of life-long medical interventions is downplayed because the risks to the individual's mental health from non-affirmation, including potentially suicide, are seen as so high (Coleman et al. 2022: 117). This is despite there being no clear link between trans-identification and suicidality once other psychiatric co-morbidities are controlled for (Appleby 2023, Biggs 2022).

The "exaggerated suicide narrative" which is often stated to be as high as 45% or 50% amongst trans-identifying youth despite there being no evidence to support anywhere near that figure (see Clayton 2022: 488). Despite this, the memefication of this figure perpetuates an associating between gender uncertainty and suicide which might in itself increase the risk of suicide.

The use of an inflated risk of suicide to downplay risks of medicalisation can be seen in this editorial from *The Lancet*, the world's most prestigious medical journal: "[f]ocusing on potential harms ignores the fact that wellbeing is broader than physical health alone. The harms to wellbeing posed by prohibiting care are huge. [...] puberty blockers reduce suicidality. Removing these treatments is to deny life" (The Lancet Child & Adolescent Health: 2021: 385).

In magazine article supportive of gender affirmation, a mother is quoted explaining the moment she realised that affirmation was the only option for her child: ""Do you want a happy little girl or a dead little boy?" This was the question, posed by a therapist who specialized in the transgender community, that would change everything for our family" (Neal 2017). This was a very common narrative around this time in mainstream media outlets across the political spectrum such as *CNN* (Wallace 2015) and *The National Post* (The Telegraph 2016), being asked by gender affirming therapists to parents who might otherwise be sceptical of medical interventions at such a young age, as well as in publicity for fictional (ITV 2018) and reality (Karlan et al. 2015) TV shows. An independent report commissioned by the UK government concluded that although there was no clear increased risk of suicide amongst gender dysphoric children, over associating suicidality and gender dysphoria might itself lead to an increased rate of suicide (Appleby 2023).

Medical transition

The Dutch clinicians conclude their paper reporting on the outcomes of surgical affirmation of gender identity in adolescents: "Apparently the clinical protocol of a multidisciplinary team with mental health professionals, physicians, and surgeons gave these formerly gender dysphoric youth the opportunity to develop into well-functioning young adults (de Vries et al. 2014: 7). But what of the counter/factual, how might these young people faired had their sense of gender identity not been medicalised?

Smith et al. 2001 followed up on adolescents referred to the Dutch gender clinic in the mid to late 1990s who were either deemed suitable for surgical and hormonal treatment or not, based on tighter psychosocial requirements than today. As the non-treated participants comprise those who did not fit the relatively strict criteria for treatment, they form a rather imperfect control group as they are by very definition not directly comparable. Given the complete absence of randomised control trials in the field (Ludvigsson et al. 2019), the outcomes of this non-treated group may nonetheless provide some valuable insight into the potential counter-factual of non-treatment, especially as they were not necessarily disqualified for lack of gender dysphoria but rather their poor phycological or social functioning.

This latter group seemed to have benefited from non-treatment, with the researchers noting that the "majority of the NT-group had found other ways for dealing with their gender problem to the point that they actually reported having less gender dysphoria" (Smith et al. 2001: 478). In explaining why the gender dysphoria had remitted in this less stable group without medical intervention, the authors attributed it to a mix of treatment for other psychological conditions and an over attribution of those troubles to gender dysphoria: "these applicants had received treatment for major non-gender problems. It could well be that they had overestimated their gender dysphoria at the time of their application and that they were able to appraise the intensity of their gender problems in a more realistic way at the time of follow-up" (Smith et al 2001: 479).

In addition to the treated and non-treated groups, the researchers also identified a third group who had initially been refused treatment but had later received it elsewhere. Those adolescents who sought out surgery independently against the advice of the initial clinicians had the worse outcomes of all, despite the intensity of pre-treatment gender dysphoria and receiving the same gender affirmative care: "[s]ome very gender dysphoric but unstable applicants pursued SRS [sex reassignment surgery] again when they were older [...] Their general level of functioning was still worse than that of the T-group despite the fact that some had received additional treatment" (ibid.: 479).

The profile of this third group (ibid.: 481) appears to correspond somewhat to the preponderance of cases more recently referred to youth gender clinics (Kaltiala et al. 2015), however affirmation is now often considered the only appropriate response, with the consideration of poor mental health only in as far as it negatively impacts upon treatment (such as reduced ability to care for oneself post surgery) but not in itself a barrier for treatment (Coleman 2022: 173).

The weakness of the evidence surrounding the efficacy of hormonal treatment on psycho-social functioning is further shown by findings that those adolescents who functioned well before treatment tended to function well after, whereas those who struggled prior to treatment either continued to do so or worsened (Kaltiala et al. 2019a).

The uncertainty becomes more stark still when contrasted with the outcomes of children referred to gender clinics before the wide-scale adoption of the Dutch Protocol, where for the vast majority of children gender dysphoria had resolved by adulthood (Singh et al. 2021). Furthermore, the similarity between the untreated group (which represented a small percentage of those referred in (Smith et al. 2001)) to the current majority of referrals are striking – particularly with respect to lateness of onset, psychological co-morbidities, and less stable family life (Kaltiala et al. 2023).

When taken together with the extremely high continuation to cross-sex hormones by patients initially prescribed puberty blockers (93-100%), a worrying picture of iatrogenic self-fulfilling prophesy begins to emerge whereby the treatment in itself may be leading to a perception of need for further treatment for distress which could potentially have resolved in the course of pubertal development. With such high rates of continuation, its use as a diagnostic tool (de Vries & Cohen-Kettenis 2012; Coleman et al. 2022) to give time to assess whether the child truly has a misaligned gender identity requiring reassignment seems redundant, as almost all do continue.

This trade off was well known to the Dutch clinicians at the time, but avoiding irreversible physical changes of puberty was considered worth the risk of over-treatment:

> Lowering this age might increase the incidence of 'false positives', but should also result in higher percentages of individuals who would more easily pass into the cross sex role than if treatment commenced well after the development of secondary characteristics. It may therefore result in a lower incidence of transsexuals with postoperative regrets. This holds especially for male-to-female transsexuals, because beard growth and voice breaking give so many of them a never disappearing masculine appearance (Cohen-Kettenis & van Goozen 1998: 248)

Even if, as the Dutch clinicians evaluated, the increase in "passibility" for the "true positives" was worth the risk of the unnecessary medicalisation of others, the argument does not hold the same weight in the case of adolescent females, as the masculinising affects of testosterone on the appearance of post pubertal females tends to be much more convincing than the inverse.

But the protocol had already solidified the idea that a gender dysphoric child was a "trans child". Because they *will be* a trans adult, it would be better to avoid puberty, which means they *need* this intervention: “allowing irreversible puberty to progress in adolescents who experience gender incongruence is not a neutral act given that it may have immediate and lifelong harmful effects for the transgender young person” (Coleman et al. 2022: 48)

While the initial Dutch studies – upon which much of the rationale for gender affirmative interventions for minors rests – successfully showed that adolescent bodies can be brought in line with the aesthetics of the opposite sex through the use of medication and surgeries, the studies failed to conclusively establish whether this was at all beneficial to the mental well-being of those young people (Abruzzese et al. 2023: 676).

Detransition, a sign of trends to come?

As with many aspects of this field, there is a plethora of terms related to the concept of re-identification with one’s birth sex. Which term is used is often dependant upon a mix of factors including discipline, time period and ideological persuasion, but for the purpose of this paper the term *detransition* is used very broadly to refer to a secession of treatment, a corresponding shift in gender identity which it potentially infers, or a more explicit renouncement of transgender-identification.

Simply put, the detransition rate is almost entirely unknown (Cohn 2023; Expósito-Campos 2023). Without a clear and consistent operational definition of *desistance* and *detransition*, estimates range anywhere from the extremes of less than 1% to upwards of 20% depending on the definition, criteria and methodology. Very little research has been conducted on the phenomenon, with a recent review finding 91% of the available literature dated within 4 years since 2018, only a third of which was empirical research of some kind (2023: 101). Transition is an inherently heterogeneous process in terms of motivation, social context and medicalisation, and detransition therefore doubly so, making it extremely difficult to quantify. The lack of research is further compounded with it being seen as “politically incorrect” by many institutions (BBC 2017). For this reason provenance rates for detransition often have to be inferred from follow-up studies of treatments, many of which have other limitations.

A few studies at the extremes will be explored in more detail in order to get an idea of the heterogeneity of the data, as well as its lack of applicability to predicting a feasible detransition rate in the current cohort. At the low end, Wiepjes et al. reported upon post operative regret on patients who had received gonadectomies in the Netherlands over a 40 year period (N=2,627) (2018: 2). They found a 0.3-0.6% regret rate (N=14) among this population, with reasons ranging from external factors such as social acceptance to what they called “true” regret: “[p]eople who were classified as having true regret reported that they thought gender-affirming treatment would be a “solution” for, for example, homosexuality or personal acceptance, but, in retrospect, regretted the diagnosis and treatment” (Wiepres et al. 2018: 4).

This seemingly small regret rate is qualified by a remarkably high loss to follow-up of 36%, despite the clinic being the country’s only gender service and post-surgical patients requiring lifelong medical care (ibid.: 8). Furthermore, regret was ascertained through medical records and was first expressed an average of 10 years following surgery. Considering the vast majority of surgeries were conducted within this time-frame [Fig. 12] there may not have been enough time for it to be expressed. Because of the sifting population sheen elsewhere, similar issues around the generalisability of these results also apply here. In addition, gonadectomy was a legal requirement to being officially recognised as the opposite gender in the Netherlands until 2014 (ibid.: 7) and this change may have made patients subsequently re-evaluate the practical utility of the surgery. This can be hinted at from the dramatic decrease in the procedure in the subsequent four years (van der Loos et al. 2023).

Figure 12: Patient trends at the Amsterdam University Medical Center (Wiepjes et al. 2018: 5)

Two major problems exist in the wider current literature around long term satisfaction with medical treatments for gender identity: high loss to follow-up and short follow-up times. This can mean that a large proportion of people who subsequently detransition may not be picked up by these studies. Cohn [Fig. 13] makes this point by plotting studies by the percentage of treated patients followed-up against the time at which they were followed up to show that no study to date meets these requirements.

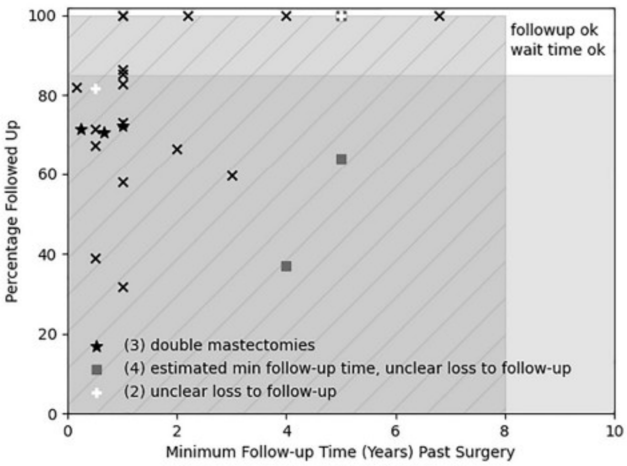


Figure 13: Follow up studies on medical transition by percentage and time of follow up (Cohn 2023: 1941).

In a study looking at the reasons for detransition – rather than the prevalence thereof – it was found that 76% of detransitioners had not informed their clinicians (Littman 2021: 3369), indicating that detransitions may be disproportionately represented in loss to follow-up statistics.

When insurance billing records are taken as a proxy for detransition, rates do indeed seem significantly higher than indicated through follow-up studies (Roberts et al. 2022; Bachmann et al. 2024). Roberts et al. saw a 30% drop in gender affirming treatment within 4 years. with males considerably more likely to continue treatment than females (81% vs 64%) (2022: 3939). Individuals who were transitioned before the age of 18 were also much more likely to persist in cross sex identification (as gauged by continued access to hormones) than those who transition as adults (ibid.: 3940).

As well as prevalence estimates, reasons for detransition also vary greatly across and within studies. An online survey of 237 detransitioners (92% female) reported predominantly reasons around gender dysphoria, change of perspective and consequences of treatment [Fig. 14].

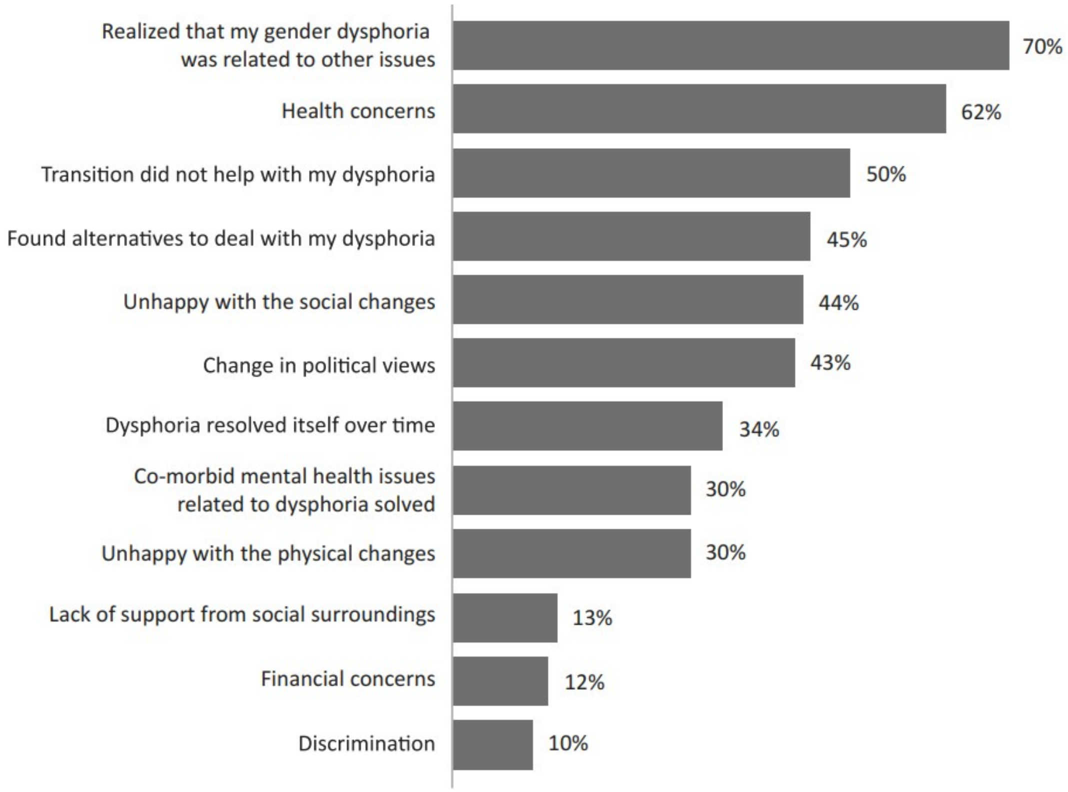
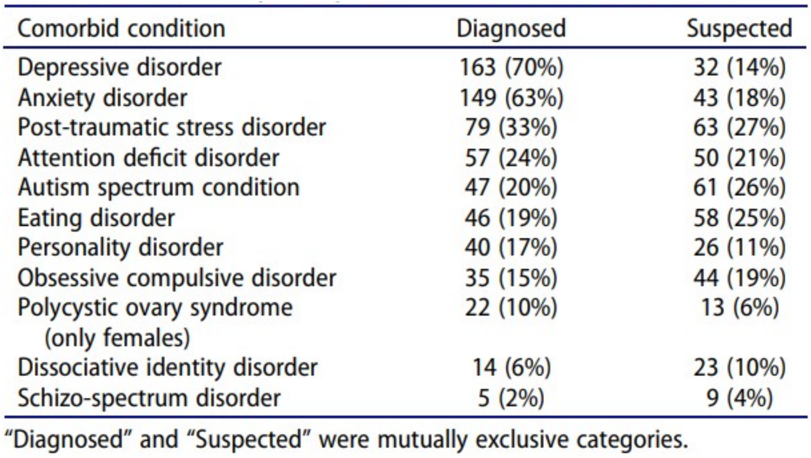


Figure 14: Reasons for detransition (Vandenbussche 2022: 1607)

Littman found similar reasons for detransition, with the addition of internalised homophobia, which was not surveyed for but reported by 23% of participants in free text fields (2021: 3362). Contrastingly, a study looking at data from 2242 people with histories of detransition from the *U.S. Transgender Survey* found detransition was motivated primarily by external factors, with only 16% of detransitioners citing uncertainty or fluctuations around gender identity (Turban et al. 2021: 276).

This discrepancy between the two figures can be explained in large part by the difference in sampling of the two studies, with the former recruiting participants through online detransition forums and pages (Vandenbussche 2022: 1604), and the latter filtering data from a larger survey of trans-identified people, meaning that everyone who took the survey re-identified as transgender (Turban et al 2021: 274). The former likely biases responses to more negative experiences, while the latter to more positive ones. Other ethological factors also influence the result, with the latter survey for instance listing 28 external factors and only three internal factors, with a further reason “It was just too hard for me” excluded from analysis in the study (ibid.: 277).

Detransition will not be discussed much further, but from the limited data available so far there is some indication of diagnostic overshadowing which may turn out to be pertinent to the current cohort of medically affirmed adolescents. 59% of the female detransitioners in Littman's study were diagnosed with mental illness or neurodevelopmental disability prior to the onset of gender dysphoria, 28% had engaged in self harm and 48% had experienced trauma less than a year before onset of dysphoria (2021: 3369). High psychological co-morbidity rates in detransitioners are also reflected elsewhere [Fig. 15].



Comorbid condition	Diagnosed	Suspected
Depressive disorder	163 (70%)	32 (14%)
Anxiety disorder	149 (63%)	43 (18%)
Post-traumatic stress disorder	79 (33%)	63 (27%)
Attention deficit disorder	57 (24%)	50 (21%)
Autism spectrum condition	47 (20%)	61 (26%)
Eating disorder	46 (19%)	58 (25%)
Personality disorder	40 (17%)	26 (11%)
Obsessive compulsive disorder	35 (15%)	44 (19%)
Polycystic ovary syndrome (only females)	22 (10%)	13 (6%)
Dissociative identity disorder	14 (6%)	23 (10%)
Schizo-spectrum disorder	5 (2%)	9 (4%)

"Diagnosed" and "Suspected" were mutually exclusive categories.

Figure 15: Psychological co-morbidity among detransitioners (Vandenbussche 2022: 1606).

A lawsuit recently filed against Dr Olson-Kennedy reads:

> This case is about a team of purported health care providers who collectively decided that a vulnerable girl struggling with complex mental health struggles and suffering from multiple instances of sexual abuse should be prescribed a series of life-altering puberty blockers and cross-sex hormones, ultimately, receive a double mastectomy at the age of 14 (Schwanemann 2024)

For proponents of gender affirmation, for whom almost all mental health problems down to transphobia (Ashley 2021: 6), this is a price worth paying: "transition for those who would grow up cis does not appear comparably harmful to delaying transition" (Ashley 2021: 9)

The elephant in the room

Anyone with even a cursory knowledge of cognitive science or similar interdisciplinary pursuit, is well aware of the oft evoked analogy of a series of blind wise-men, each groping around at a different part of an elephant and coming to their own conclusions about its nature. Each conclusion, so the parable goes, is logical from within the narrow domain within which the individual wiseman operates (he who examines the trunk believes he is dealing with a snake, while he who is engaged with the leg supposes it to be a tree etc.), while failing to grasp the bigger picture of the gestalt of the elephant from its parts.

The moral of the tale is clear: in order to establish the true nature of the elephant, it is crucial that the wisemen communicate their individual findings so that a synthesis can be achieved.

Well, there's an elephant in the room, and no matter what parts they examine and how well they communicate, the wisewen will never discern its gender identity.

Gender identity has gone from a narrowly defined psychological construct to a nebulous transcendental concept that trumps objective reality: *I think I am a boy, therefore I am*. All of this has happened in the context of increasing medical interventions which have the potential to be particularly devastating to the health and wellbeing of the children treated. The evidence supporting both the need for and efficacy of these intervention is deeply flawed, and no systematic follow-up research exists of its long term impact. More attention should be paid to the emerging demographic of detransitioners, as this cohort is likely to grow if indicators from the high desistance rates of medical transition are anything to go by.

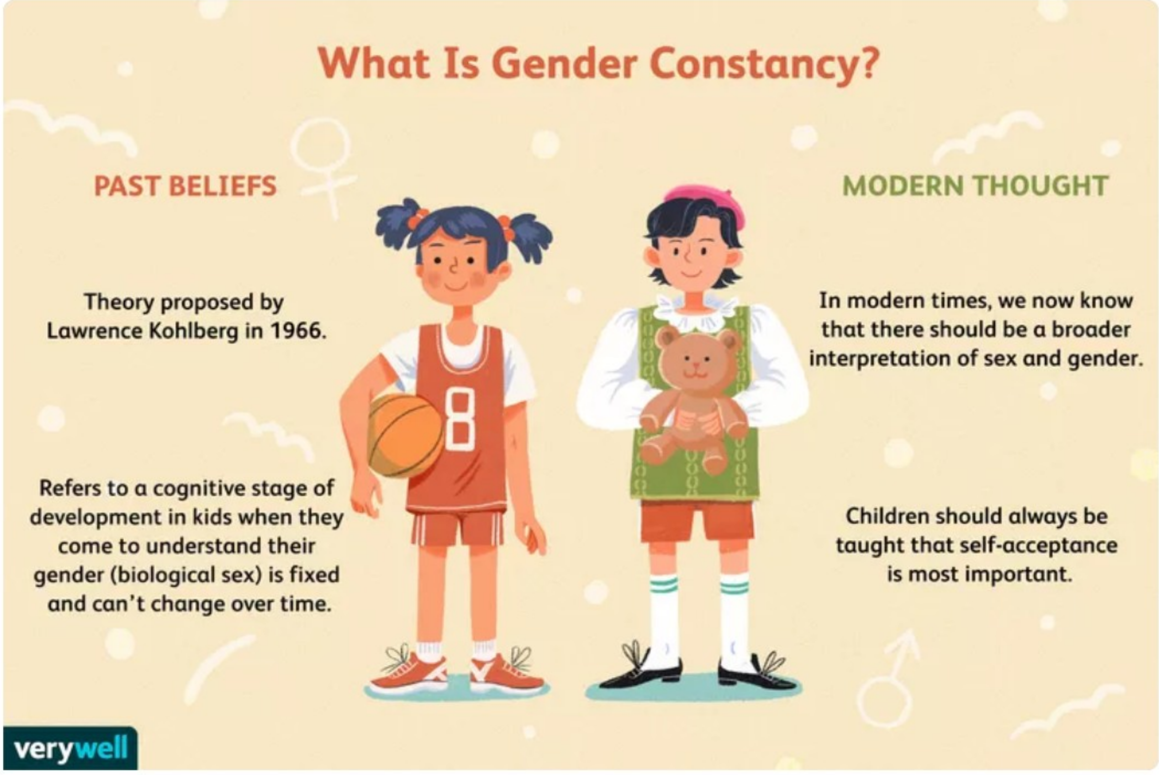
So entrenched is the concept of the "ahistorical trans child" (Brunkell-Evans 2019: 641) within mainstream psychology that its existence is seen as undermining previously well established models of childhood development, as this quote from the first few pages of the 2020 *Encyclopedia of Infant and Early Childhood Development* demonstrates:

> "Recently, Kohlberg's notion of gender constancy as a critical component of gender identity development has come under scrutiny with greater societal acknowledgement of the fluidity of gender identity and recognition of transgender and gender nonconforming children. Psychological research has traditionally assumed a cis-centric ("cisgender" focused) perspective that gender identity completely aligns with physical sex [...]. For transgender children, gender identity and sex are not aligned" (Martinez 2020: 2).

From this perspective, gender identity in young children is no longer conceptualised as a cognitive process of recognising that the social environment is divided up into two sex categories into one of which the child belongs, but rather as an innate sense of self which may (cis) or may not (trans) align to the sexed body.

This has very little to do with Kohlberg's use of gender identity. Gender identity in his sense is a development of knowledge that one is a certain sex. This knowledge is arrived at through inferred categorisation gleamed from often superficial characteristics and traits of those around them. Like all knowledge, this knowledge of one's own sex can of course be objectively untrue, but it doesn't negate the development of the knowledge.

This equivocation of the more restricted sense of gender identity with a more expansive one is relatively common in public health education, and is often used to signal perceived social progress, even to the detriment of established scientific fact. A particularly egregious example of this can be seen in [Fig. 16] from the *Verywell Mind*. A high traffic website on topics of mental health, its website promises "[y]ou can count on us to sift through the noise that too often makes mental health advice confusing or misinformed, bringing it back down to earth through clear and actionable guidance".(Verywell Mind 2019).



Theory proposed by Lawrence Kohlberg in 1966.

Refers to a cognitive stage of development in kids when they come to understand their gender (biological sex) is fixed and can't change over time.

In modern times, we now know that there should be a broader interpretation of sex and gender.

Children should always be taught that self-acceptance is most important.

Figure 16: Infographic from popular mental health education website Verywell Mind (Cuncic 2019).

The infographic contrasts “past beliefs” such as that “kids […] come to understand that their gender (biological sex) is fixed and can’t change over time”, with “modern thought” that “we now understand that there should be a broader interpretation of sex and gender” (Cuncic 2019). The implication is that in the past people “believed” that sex cannot be changed, and now we “know” that not to be entirely true.

From the plain language and use of infographics, it is clear that the resource is, in part at least, aimed at children and adolescents (Kohlberg’s theory is often taught at school). Before discussing the concept of gender constancy there is a disclaimer that “the theory does not account for individuals who identify as transgender, nonbinary, or gender fluid” (ibid.) with a hyperlink to a different section of the website entitled “What is transgender?” (Verywell Mind 2023).

This section begins “you've likely noticed that many bills in the government seek to stop different types of gender-affirming care for transgender people” with the hyperlinks leading to pages titled “How to Find Trans-Affirming Mental Health Care” and “Growing Prevalence of Anti-Transgender Legislation Takes a Toll on Mental Health” (ibid.).

It continues to explain that “transgender people have existed throughout history and were celebrated by many indigenous cultures. Because of the impact of colonialism and its heteronormative values, being a transgender person came to be seen as unnatural in the same way that being gay was” (ibid.). *I know that gay people have been treated very unfairly and have fought hard for the rights they enjoy today, so I would not want to find myself on the wrong side of history by questioning any of the claims being made about this other group.*

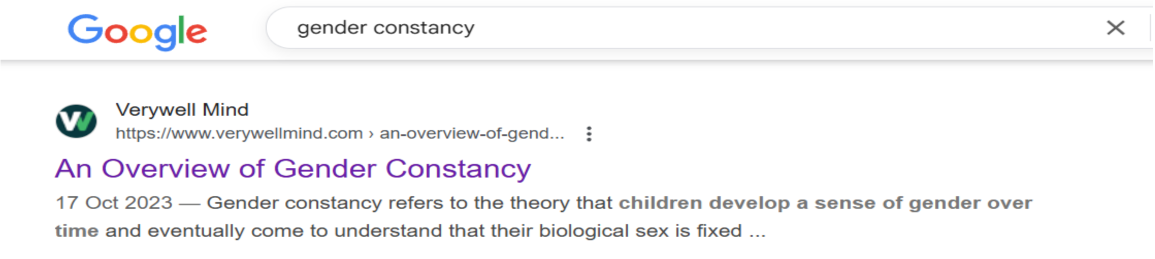
Under a subheading “Gender Dysphoria in Transgender People”, I am told about a medical condition which “is a sense of experiencing negative feelings or distress about your gender because it doesn't align with the sex assigned to you” (ibid.). *Negative feelings are bad, and although it’s not really clear to me what gender is, I don’t know how a doctor could be so negligent by assigning a sex to someone before making sure it aligns with their gender, especially as this dysphoria* “can present at any age and may occur in small children as they become socialized” (ibid.).

Apparently, “Gender dysphoria can be as simple as not wanting to play with the toys considered appropriate for your gender or as complex as wanting medical care to change your body to align with your identity” (ibid.). *That’s a very wide range of* *experiences, I better be on the lookout for signs of this condition in myself and those around me. Luckily*, “numerous treatments available for gender dysphoria that can help improve the quality of life for trans people” (ibid.).

The following “Treatment” section details surgical and hormonal interventions which a transgender person needs “to have their body align with their gender identity” (ibid.). First up is the puberty blockers section, where I learn “If a child discovers that they are transgender at a young enough age that they have not yet experienced puberty as their assigned sex, puberty blockers may be given to the child to prevent that from happening” (ibid.). *Hmm, wait a minute, is puberty not a natural human process that marks a biological transition for childhood to adulthood? Don’t adults have sex(ual intercourse) with each other, sometimes to make more children and sometimes just for fun? Is it possible for a child to* ***discover*** *that they are transgender? Should we really be… oh, wait, there’s more* “This intervention has been shown to lead to better mental health outcomes than when transition begins after puberty” (ibid.). *Oh, that makes sense then, it’s been scientifically proven. Anyone who stops these transgender children from taking these drugs must be stupid and hateful*.

Final reflection

So, why the long diversion down this particular path? This resource is not an outlier or unusual and is fairly typical for public health information in English speaking countries. I came across this website in the final days of writing this paper while searching for something else entirely. This is a mainstream high credibility public health education resource at the top of Google searches for many common conditions and receiving traffic from the most popular social media sites, reaching over 150 million unique users per year (Verywell Mind 2024).


Google

gender constancy

Verywell Mind
https://www.verywellmind.com › an-overview-of-gend...

An Overview of Gender Constancy

17 Oct 2023 — Gender constancy refers to the theory that **children develop a sense of gender over time** and eventually come to understand that their biological sex is fixed ...

Figure 17: Google search for “gender constancy” by the author of this paper on 15/05/2025, and the reason this thesis is ending the way that it is.

Within 2 minutes of clicking on the first search result for “gender constancy” [Fig. 15], a near 60 year old reasonably well established developmental psychology model, I am told that a category of people ostensibly defined by their utilisation of medicines and surgical procedures developed within the last century have always existed, that colonialism and hetero-centric notions of biological sex have lead to their marginalisation. I am told that this group suffers immensely from a medical condition with wide ranging severity and symptoms, that prevention of life saving care negatively impacts of their mental health, and that if I feel I may be one of those people I am given further information about how to access this care.

If I am a child (or parent), I am encouraged to decide quickly whether I am (or my child is) one of these people, as it has been shown that my (child’s) mental health outcome will be worse if I (they) go through puberty. The only source made available to me is a 2020 study by some doctors in Canada but that’s all I need because doctors are smart and I can count on this site to sift through all the noise of scientific research and misinformation to provide me with actionable guidance.

What I don’t know: the source was included in systematic reviews which found it provided “incredibly weak” evidence supporting the drug which is currently being recommended to me, and led to its being banned in some of the most socially progressive European countries, including by a left wing government under a Health Secretary who is himself homosexual. But I am provided none of this information, instead I am encouraged to view any attempts to criticise these life saving medical interventions as bigoted and outdated and akin to homophobia, leaving out that these indigenous cultures often have no other concept of homosexuality outside of these “third genders”, members of which undergo none of this medicalisation which leaves the transgender child with a lifelong dependency on large pharmaceutical companies. No reference is made to the growing number of people who, having undergone these same treatments for what at the time felt to be a strong need to bring their body into alignment with their gender identity, now have a different conceptualisation of gender identity altogether and deeply regret the decision they feel should never have been given to them in the first place at such a young age. Nor am I told that these supposed historical truths are imbued with post-structuralist notions of identitarian power relations which, despite being highly contested, have nonetheless spread throughout the Western sense-making apparatuses of universities and the media, buoyed by the cultural and financial hegemonic influence of the world's major superpower.

To me the point of science is to in some way get closer to *the truth*. In what is likely to be the last remotely academic work that I produce I therefore consider it worth the risk to say what I now *believe* to be true. Regardless of whether or not these children have a gender identity at all, they do have a sex. Sex is immutable. Whether they are male or female is a value-neutral but materially significant fact which will have implications for their physiological development and social interaction throughout their entire life. The impulse to destabilise the notion of sex in favour of gender identity removes the ability to describe the world in somewhat objective terms. When this meets medicine it becomes a postmodern driver drunk at the wheel of a modernist car.

This is going to seem like a strong statement and possibly, depending on your own views on the matter, one that itself comes across as heteronormative, cis-centric or even bigoted. But in a thesis where I was encouraged to give my personal view on the topic, my personal view is that many of the concepts, diagnoses and treatments underpinning gender affirmative care for minors will one day come to be seen much like recovered memory, multiple personality disorder and lobotomies before it. Gender affirming care for gender questioning minors too young to possibly consent to its lifelong consequences, may well represent not just *an* example, but by its scope and success, potentially *the* example of the psychiatrisation of society.

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