

Pablo Expósito-Campos^{a,b}
Karmele Salaberria^a
José Ignacio Pérez-Fernández^a
Esther Gómez-Gil^c

Gender detransition: A critical review of the literature

^a Department of Clinical and Health Psychology and Research Methods, Faculty of Psychology, University of the Basque Country/Euskal Herriko Unibertsitatea, Donostia-San Sebastián 20018, Spain

^b Predoctoral Research Fellowship Program of the Department of Education of the Government of the Basque Country, Spain

^c Institute of Neurosciences, Psychiatry Service, Gender Identity Unit, Clínic Hospital, IDIBAPS, Barcelona 08036, Spain

ABSTRACT

Introduction. Gender detransition is the act of stopping or reversing the social, medical, and/or administrative changes achieved during a gender transition process. It is an emerging phenomenon of significant clinical and social interest.

Methods. We systematically searched seven databases between 2010 and 2022, manually traced article references, and consulted specialized books. Quantitative and content analyses were carried out.

Results. We included 138 registers, 37% of which were empirical studies and 38.4% of which were published in 2021. At least eight terms related to detransition were identified, with differences in their definitions. Prevalence estimates differ according to the criteria used, being lower for detransition/regret (0–13.1%) than for discontinuation of care/medical treatment (1.9%–29.8%), and for detransition/regret after surgery (0–2.4%) than for detransition/regret after hormonal treatment (0–9.8%). More than 50 psychological, medical, and sociocultural factors influencing the decision to detransition and 16 predictors/associated factors are described. No health or legal guidelines are found. Current debates focus on the nature of gender dysphoria and identity development, the role of professionals in accessing medical treatments, and the impact of detransition on future access to these treatments.

Conclusions. Gender detransition is a complex, heterogeneous, under-researched, and poorly understood reality. A systematic study and approach to the topic is needed to understand its prevalence, implications, and management from a healthcare perspective.

Keywords. Gender detransition, regret, desistance, gender dysphoria, gender incongruence, critical review

DESTRANSICIÓN DE GÉNERO: UNA REVISIÓN CRÍTICA DE LA LITERATURA

RESUMEN

Introducción. La destransición de género es el acto de detener o revertir los cambios sociales, médicos y/o administrativos conseguidos durante un proceso de transición de género. Se trata de un fenómeno emergente de gran interés a nivel clínico y social.

Método. Se condujo una búsqueda sistemática en siete bases de datos entre 2010 y 2022, se rastrearon manualmente las referencias de los artículos y se consultaron libros especializados. Se realizó un análisis cuantitativo y de contenido.

Resultados. Se incluyeron 138 registros, 37% correspondientes a estudios empíricos y 38,4% publicados en 2021. Se identifican al menos ocho términos para hacer referencia a la destransición, con diferencias en sus definiciones. La prevalencia difiere en función del criterio utilizado, siendo menor para la destransición/arrepentimiento (0–13,1%) que para la discontinuación de la asistencia/tratamiento médico (1,9%–29,8%), y menor para la destransición/arrepentimiento tras cirugía (0–2,4%) que para la destransición/arrepentimiento tras tratamiento hormonal (0–9,8%). Se describen más de 50 factores psicológicos, médicos y socioculturales que influyen en la decisión de destransicionar, así como 16 factores predictores/asociados. No se encuentran guías de abordaje sanitario ni legislativo. Los debates actuales se centran en los interrogantes sobre la naturaleza de la disforia de género y el desarrollo de la identidad, el papel de los profesionales con respecto al acceso a los tratamientos médicos y el impacto de las destransiciones sobre la futura accesibilidad a dichos tratamientos.

* Correspondence

Pablo Expósito-Campos, Department of Clinical and Health Psychology and Research Methods, Faculty of Psychology, University of the Basque Country/Euskal Herriko Unibertsitatea (UPV/EHU), Donostia-San Sebastián 20018, Spain.
pablo.exposito@ehu.eus

Conclusiones. La destransición de género es una realidad compleja, heterogénea, poco estudiada y escasamente comprendida. Se requiere un abordaje y estudio sistemático que permita comprender su prevalencia real, implicaciones y manejo a nivel sanitario.

Palabras clave. Destransición de género, arrepentimiento, desistencia, disforia de género, incongruencia de género, revisión crítica

INTRODUCTION

In recent years, there has been a significant increase in health, social, and media interest in the experiences of transgender people in developed countries. The progressive change in social attitudes toward sexual and gender diversity, their greater visibility in the media, the availability of access to information, and the demands of this group have enabled the creation of a more tolerant and committed social climate, especially in terms of equality, recognition, and rights. In Spain, this situation has been reflected in the approval of various regional laws and the creation of new healthcare units or teams in several autonomous regions¹. Within the medical and psychological disciplines in particular, new attitudes, concepts, and professional approaches to identity diversity have been promoted in order to reduce stigma and ensure the well-being and social integration of transgender people.

At the same time as all these advances have taken place, new clinical situations have emerged that are still poorly understood by professionals working in the field of gender identity^{2,3}. One of these situations involves people who, after having undergone a process of gender transition over a more or less extended period of time, decide to stop or reverse the social, medical, and/or administrative changes achieved, either partially or completely, temporarily or definitively. This phenomenon is known as *gender detransition*, and individuals who go through it are known as *detransitioners* or *detrans*. Some of them stop identifying as transgender and reidentify with their birth sex, while others maintain their identity and/or continue to consider themselves part of the transgender community.

Despite the impact it has had at various levels, this is not an entirely new issue from a historical perspective. In the literature published throughout the second half of the last century, one can already find various studies, both empirical and qualitative, describing situations that we would now categorize as detransitions⁴⁻⁷. However, the last decade has seen significant changes in the landscape of healthcare for gender diversity, without which it is difficult to understand this renewed interest in gender detransition.

On the one hand, there has been a significant increase in referrals internationally, especially among minors and young adults⁸⁻¹³; a progressive reversal of the sex ratio, which has shifted in favor of female-to-male gender transitions^{12,14-17}; and an increase in non-binary and other gender variant identities¹⁸⁻²⁰. These trends have also been observed in Spain, according to data from the Gender Identity Units (GIUs) of Andalusia²¹, Asturias^{22,23}, Catalonia²⁴, Madrid²⁵, and Valencia²⁶. On the other hand, a new treatment model, known as gender affirmative²⁷, is being implemented, which is based solely on the principle of informed consent²⁸ and eliminates the requirement for psychological assessment and counseling²⁹. This model thus departs from the traditional biopsychosocial model, which emphasizes the importance of conducting comprehensive psychosocial assessments before recommending any social or medical intervention^{30,31}. In Spain, the new treatment protocols that exist in some regions, such as Andalusia, following the approval of regional laws, eliminate the recommendation of psychological assessment and offer isolated endocrinological services without the participation of multidisciplinary teams^{1,3}.

In this context, some professionals have warned that providing medical treatment prematurely or hastily to an increasing number of young people, some of whom have a poorly understood psychosocial profile, could entail significant risks, such as an increase in the number of future detransitions^{3,32}. However, the paucity of research, coupled with the methodological limitations of clinical research, has resulted in a very limited understanding of the phenomenon of detransition. Much remains unknown about the experiences, factors, and motivations that underlie detransition, and about the possible needs and demands of people who detransition in healthcare settings.

The general aim of this article is to critically review the existing literature on the phenomenon of gender detransition in order to present a state of the art that allows us to identify known aspects, existing uncertainties, and possible lines of future research.

METHODS

Search strategy

An initial literature search was conducted in four international databases (Web of Science, Scopus, PubMed, and PsycInfo) and two national databases (Dialnet Plus and Psycodoc) using the following combination of terms: (detransition* OR de-transition* OR retransition* OR regret* OR surg* reversal) AND (transgender OR non-binary OR transsexual* OR gender dysphoria OR gender incongruence),

as well as their Spanish equivalents: destransición*, detransición*, retransición*, arrepenti*, rever* quirúrgica, transgénero, no binari*, transexual*, disforia de género, and incongruencia de género. The search strategy was adapted to the specific characteristics of each database. Given the epidemiological and health changes that have occurred nationally and internationally, it was limited to the last 13 years (January 2010–March 2022). To identify non-indexed books and articles, an additional search was performed in Google Scholar, the references of the selected articles were manually traced, and specialized books on the subject were reviewed. Finally, PubMed and Google Scholar were further searched during the writing of the manuscript to incorporate relevant articles published between April and June 2022. Only articles published in English, Spanish, or French were included.

Data selection and extraction

The results of the screening process were organized using a flow chart according to the PRISMA (*Preferred Reporting Items for Systematic Reviews and Meta-Analyses*) statement³³. All citations were entered into Zotero for consistency and treatment. The initial selection was based on the title and abstract, and the final decision was based on the full text. Inclusion criteria were: (a) having the study/reflection on the phenomenon of detransition as the main objective; (b) providing and discussing data related to its prevalence, etiology, or predictors/associated factors; or (c) being related in some way to gender detransition, even if this was not a priori considered among its objectives. Given the expected paucity of literature, all types of records were considered, including letters to the editor, editorials, commentaries, books, conferences, presentations, abstracts, theses, and informal surveys conducted by detransitioners.

The selected references were exported into a Microsoft Excel file from which the following information was extracted: author(s), year of publication, country (based on the affiliation of the first author), type of study, methodology, and results or main ideas. According to the type of study, the papers were classified into four groups: *empirical*, *theoretical*, *case studies*, and *opinion*. The *empirical* category included descriptive studies using surveys, retrospective chart reviews, prospective and retrospective cohort studies, and studies using qualitative and mixed methods. The *theoretical* category included systematic and non-systematic reviews, theoretical proposals, and reflection articles. *Case studies* included both single and multiple case studies. The *opinion* category included editorials, commentaries, viewpoints, and letters and responses to the editor. Due to their relevance, five outcome tables relating to the terminology associated

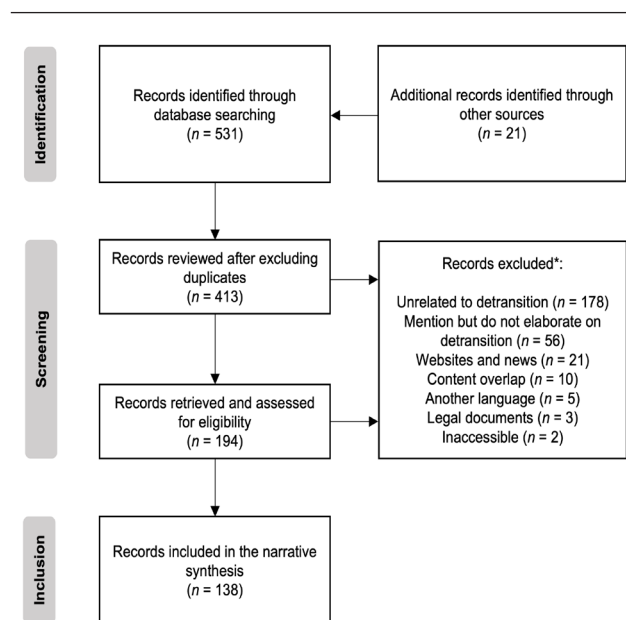
with detransition, its etiology, prevalence, predictors/associated factors, and the needs of detransitioners were developed from the data identified in the literature.

Data analysis

For the quantitative analysis, the following variables were extracted using frequencies and percentages: (1) type of study; (2) distribution by country; and (3) distribution by year of the records included in the narrative synthesis. For the content analysis, the following variables were collected where available: (1) terminology used and its definition; (2) prevalence data; (3) factors influencing the decision to detransition; (4) possible predictors/associated factors; (5) problems, difficulties, and related needs; (6) professional approach; and (7) clinical and bioethical implications.

RESULTS AND DISCUSSION

A total of 413 records were reviewed. After applying the inclusion criteria, 138 were finally selected for the narrative synthesis (Figure 1).



Notes. * Various records identified during the search reflected on gender detransition from a moral perspective on gender transition processes, so we decided to exclude them from the narrative synthesis given their limited clinical relevance. Similarly, we identified several articles and theses tangentially related to gender detransition, so we prioritized only those with greater relevance and related content. Articles focusing exclusively on the phenomenon of desistance (diagnostic remission of gender dysphoria) were also excluded, with the exception of Karrington's systematic review³⁰, which was included because of its thematic relevance. Finally, articles in which detransition occurs in the context of dementia or intersexuality were excluded as these were considered to be qualitatively different phenomena to the one explored in this review.

Figure 1

Flow chart

Quantitative analysis

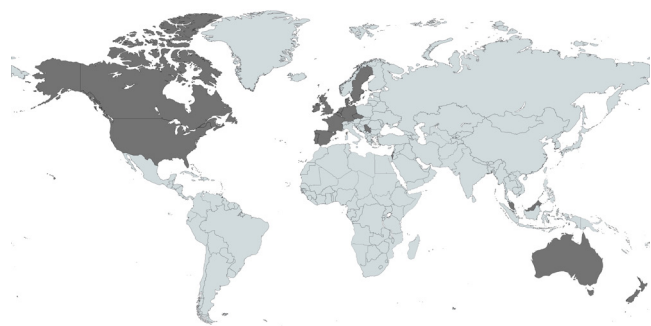
Most of the records reviewed were empirical ($n = 51$; 37%), with a predominance of qualitative methods ($n = 18$) and retrospective chart reviews ($n = 18$). Twenty-three articles were opinion pieces (16.7%) and 17 described single ($n = 11$) or multiple ($n = 6$) case studies. Theoretical records ($n = 47$; 34.1%) were mostly reflective in nature (74.5%) (Table 1).

Table 1		Characteristics of the included studies	
Type of article n (%)	Methodology	n	(%)
Empirical 51 (37%)	Qualitative ^{45-47,59,65,70,79,81,118,130,134,137,138,148,167-170}	18	(35,30%)
	Retrospective chart review ^{24,35,36,49,53,55,57,58,66,82,87,89,91,94-96,98,114}	18	(35,30%)
	Surveys ^{34,54,56,67,86,90,109}	7	(13,7%)
	Mixed ^{83,92,100}	3	(5,9%)
	Prospective cohort study ^{48,62,99}	3	(5,9%)
Theoretical 47 (34,1%)	Retrospective cohort study ^{93,97}	2	(3,9%)
	Reflection ^{2,3,32,40,43,69,116,117,119-121,126-129,131-133,139,140,142,143,145-147,149,150,156,157,159-162,166,171*}	35	(74,5%)
	Literature review ^{42,83,101,109,152,173}	6	(12,8%)
	Theoretical proposal ^{41,75,76}	3	(6,4%)
Opinion 23 (16,7%)	Systematic review ^{37,80,88}	3	(6,4%)
	Letter to the editor ^{44,77,102-104,125,135,136,151-153,158,163,165}	14	(60,9%)
	Viewpoint ^{50,51,85,164}	4	(17,4%)
	Editorial ^{52,141,144,154}	4	(17,4%)
Case studies 17 (12,3%)	Comment ¹⁰⁷	1	(4,3%)
	Single case study ^{61,63,64,68,73,74,110-112,115,172}	11	(64,7%)
	Multiple case studies ^{38,39,60,71,72,108}	6	(35,3%)

Notes. * Of the 35 reflection documents, four (11.8%) are based on the personal experiences of their authors as individuals who have transitioned and detransitioned^{117,120,121,171}.

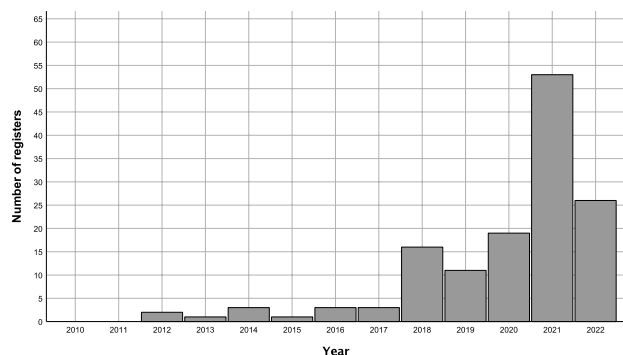
A large proportion of the records analyzed came from the United States (34.8%), followed by the United Kingdom (21%) and Spain (11.6%) (Figure 2). Overall, 88.4% were published in English, 9.4% in Spanish, and 2.2% in French.

As shown in Figure 3, 90.6% of the papers were published in the last five years (2018-2022), with a peak occurring in 2021 (38.4%).



Notes. United States ($n = 48$), United Kingdom ($n = 29$), Spain ($n = 16$), Canada ($n = 15$), Australia ($n = 5$), Belgium ($n = 3$), France ($n = 3$), Netherlands ($n = 3$), Serbia ($n = 3$), Germany ($n = 2$), Denmark ($n = 2$), Sweden ($n = 2$), Ireland ($n = 1$), Israel ($n = 1$), Malaysia ($n = 1$), New Zealand ($n = 1$), Portugal ($n = 1$), Czech Republic ($n = 1$). For one record, it was impossible to determine the place of origin¹¹⁷. Map created using mapchart.net.

Figure 2 | Distribution of records by country



Notes. 2010 ($n = 0$), 2011 ($n = 0$), 2012 ($n = 2$), 2013 ($n = 1$), 2014 ($n = 3$), 2015 ($n = 1$), 2016 ($n = 3$), 2017 ($n = 3$), 2018 ($n = 16$), 2019 ($n = 11$), 2020 ($n = 19$), 2021 ($n = 53$), 2022 ($n = 26$).

* Only records up to June 2022 were included.

Figure 3 | Distribution of records by year

CONTENT ANALYSIS

Conceptualization and terminology

One of the main difficulties in approaching the study of gender detransition is the lack of conceptual and terminological clarity. This review identified at least eight different terms used to refer to detransition. Furthermore, in many cases no operational definitions of the terms are provided, or qualitatively different terms are used equivalently or interchangeably. Table 2 summarizes the terms used in the literature, their definitions, and the relationships between them.

Broadly speaking, three main problems can be identified: (1) equating detransition with regret³⁴⁻³⁷; (2) using the same term to refer to different situations^{38,39}; and (3) using different terms interchangeably³⁹⁻⁴⁸ or inconsistently with the scientific literature^{24,49-52,79}.

The first problem is present in a significant percentage of the published articles. It originates in the older scientific literature, in which the term "regret" was used to describe situations of detransition⁷, regardless of the underlying motives and whether or not the person expressed regret about the transition process⁵. However, the emotional experience of regret

is not homogeneous but can vary significantly depending on different aspects, such as its duration, its intensity, or the type of situation that causes it: a temporary feeling of ambivalence is not the same as permanent regret, nor is regret following an identity change the same as regret following medical complications³⁴. More importantly, regret does not always lead to or is not always present in a detransition since it is possible to find cases of regret without detransition⁵³⁻⁵⁸ and of detransition without regret^{38,49,53,55,56,59-68}. For instance, some detrans individuals have expressed that transitioning was part of their own journey or exploration process and that they could not know beforehand if it was the right decision^{38,43,56,67,69-71}.

Table 2		Detransition-related terminology	
Term	Definition	Subtypes	
Detransition ^{2,3,32,34,37-39,41-47,49-53, 55,56,58-61,64,66-77,79,82,84,85,91-93,100,105,109-111,116-121,125-127,130-136,138,141-143,145,147,148,150,155,157,160-163,167-171,173}	The process of stopping or reversing the social, medical, and/or administrative changes achieved during a gender transition, either partially or completely, temporarily or permanently	When it involves the cessation of a transgender identity, it may be referred to as "primary" detransition or detransition "with identity desistance." If it does not involve the cessation of a transgender identity, it may be called "secondary" detransition or detransition "without identity desistance"	
Related terms	Definition	Relationship with the term "detransition"	
Regret ^{3,32,34-37,54,57,58,62,66,68,71,81,84,86-88, 93,102-104,108,112,113,115,128,129,134,137,139,140,142-144,146-149,151-156,159,160,162,164-166,172,173}	The negative emotional state associated with the social, medical, and/or administrative changes achieved during a gender transition process	It is used as a synonym for detransition, although they do not always coincide (there is detransition without regret and regret without detransition)	
Desistance ^{49-52,79,80,125,141,157,158}	It is currently used to describe individuals who stop identifying as transgender before undergoing a medical gender transition process. It does not necessarily imply a remission of gender dysphoria	In the scientific literature, it has been used to describe the diagnostic remission of childhood-onset gender dysphoria around puberty prior to any social or medical intervention	
Discontinuation/Cessation/Termination ^{36,38,41,62,63,89,92,94-99}	The stopping of the social and/or medical aspects of a gender transition process. It may or may not be accompanied by the cessation of a transgender identity	It is sometimes used as an equivalent to detransition. However, some suggest reserving the term only for cases of "secondary" detransition or detransition "without identity desistance"	
Reversion/Reversal ^{54,89,110,113-115}	The process by which a person returns to their pre-transition gender identity or gender presentation, either through social, medical, and/or administrative means	It may describe: (a) returning to living socially/legally according to the birth sex; or (b) undergoing birth sex-congruent medical treatment to reverse the physical changes experienced during a gender transition process	
Disidentification/Reidentification ^{43,67}	The process by which a person ceases to identify as transgender (disidentification) or reidentifies with their birth sex (reidentification)	It is equivalent to "primary" detransition or detransition "with identity desistance"	
Retransition ^{39-48,65,81,146,156,159}	The process of restarting or resuming a previously stopped or reversed gender transition	In some contexts, it is used as a synonym for detransition	

Others see their gender transition as a valuable experience and would not change anything if they could go back⁷⁰. Therefore, in order to dissociate the two terms, it might be helpful to stop using them interchangeably and instead prioritize the term "detransition," indicating whether or not it is accompanied by regret.

The second problem concerns the lack of consensus on the type of situations that constitute a detransition. In the literature, the term has been used interchangeably to refer to people who detransition after reidentifying with their birth sex^{39,72-74} (i.e., who cease to identify as transgender; "primary" detransition⁷⁵ or detransition "with identity desistance"³⁹) and to describe people who stop or reverse some aspects of their transition but maintain a transgender identity^{38,39,60,63,64} ("secondary" detransition⁷⁵ or detransition "without identity desistance"³⁹). It has also been suggested to break down detransition into three related concepts: detransition as an "act," which would refer to secondary detransition; detransition as an "identity," which would imply a change in the subjective self-understanding and would be conceptually closer to primary detransition; and detransition as a negative transition experience, which would be closer to the classic concept of "regret"⁷⁶. Other proposals suggest reserving the term "detransition" exclusively for primary detransitions^{41,77} and using other expressions, such as "discontinuation of the transition process", for secondary detransitions⁴¹.

The third and final problem is the use of some terms that do not conform to common usage in the scientific literature. Traditionally, "desistance" has been used to describe the diagnostic remission of childhood-onset gender dysphoria (GD) with the onset of puberty prior to any social and medical transition^{77,78}. More recently, however, it has been used specifically to refer to those who cease to identify as transgender, in many cases after socially transitioning to some degree (e.g., by changing their name and pronouns), but before initiating hormonal and/or surgical treatments^{49-52,79}. Thus, according to this new meaning, desistance is based on identity rather than a diagnostic criterion, often occurs after a social transition, and does not necessarily take place at puberty. This confusion has also been pointed out by Karrington⁸⁰ in a systematic review of the literature on desistance. Other clinicians have even used the term "desistance" to describe all types of primary detransition in adolescents/adults before or after the initiation of medical treatment²⁴.

Finally, some authors have begun to use the term "retransition" as a synonym for detransition^{39-48,65,81}, on the premise that a detransition constitutes a transition back to the original gender identity (or to a different gender

identity). However, "retransition" is much more commonly used to indicate the resumption of a previously stopped or reversed gender transition process^{34,56,69,75,82}. Other terms used to describe detransition are "disidentification" and "reidentification"^{43,67}, although these are not as widely used as the others. It is also possible to find alternative expressions, such as "shifts in gender-related medical requests"⁸³ or "change in transition goals"⁸⁴, which could include experiences of detransition. From a historical perspective, it has been suggested to call detransition "Tiresias process" after a soothsayer in Greek mythology, Tiresias, who was transformed into a woman and, seven years later, turned back into and lived as a man⁸⁵.

Prevalence

Although it is difficult to determine the exact prevalence of people who detransition, overall, the estimates for detransition or regret following hormonal and/or surgical treatments (0-9.8%)^{24,34-37,48,49,53-55,57,58,66,82,86-95,98} are notably lower than those for discontinuation of care/medical treatment (1.9-29.8%)^{36,53,55,62,92,95-99}. However, in most of these cases it is not possible to determine whether there is an identity change or the underlying reasons. Similarly, the figures for detransition or regret following gender-affirming surgery (0-2.4%)^{24,34-37,49,53,55,57,66,86,88,90,93,100} are lower than those after hormonal treatment (0-9.8%)^{24,48,49,53-55,66,87,89,92,94,95,98,100}. The study by Marinkovic and Newfield⁹¹, which reports a 7.1% (1/14) figure for detransition after double mastectomy, is an exception given its small sample size. Finally, prevalence estimates range from 0.5 to 7.3%^{24,48,49,89} when focusing on the change, doubts, or cessation of a transgender identity before or at the beginning of hormonal treatment (Table 3).

An American study based on a 2015 survey¹⁰¹ with a convenience sample of transgender individuals found a temporary or permanent detransition rate of 13.1%¹⁰⁰. It is important to note, however, that all respondents still identified as transgender and not all had medically transitioned, so it is likely that these findings do not represent the total number of people who detransition. On the other hand, a recent meta-analysis has suggested an overall prevalence of regret and detransition of 1%³⁷. However, this only includes cases following surgical interventions (excluding, for example, those who detransition after starting hormonal treatment alone). Similarly, methodological, conceptual, and study selection errors have been identified that call into question the validity and generalizability of the results¹⁰²⁻¹⁰⁴.

Overall, there are four main barriers in the studies reviewed that make it difficult to reliably estimate the prevalence of detransition. Some of these difficulties are not unique to those studies but are common to the field of

Table 3		Prevalence of detransition/regret	
Study (year)	Criteria	Prevalence	
Boyd et al. ⁵³ (2022)	Discontinuation of hormonal treatment	8/41 (19.5%)	
	Change or cessation of a transgender identity after hormonal treatment	4/41 (9.8%)	
	Regret after surgery	1/41 (2.4%)	
Bustos et al. ³⁷ (2021)*	Regret after surgery	77/5672 (1.4%)	
	Reversion to the original gender after surgery	36/5672 (0.6%)	
Brik et al. ⁹⁸ (2020)	Discontinuation of hormonal treatment ^a	9/143 (6.3%)	
Butler et al. ⁸⁹ (2021)	Cessation of a transgender identity before hormonal treatment	59/1151 (5.1%)	
	Cessation of a transgender identity after hormonal treatment	58/1151 (5%)	
Carmichael et al. ⁹⁹ (2021)	Discontinuation of hormonal treatment	1/44 (2.3%)	
Davies et al. ⁵⁸ (2019)	Reversion to the original gender or regret ^{b,c}	16/3398 (0.5%)	
Day et al. ⁹⁰ (2021)	Regret after surgery	2/84 (2.4%)	
De Castro et al. ²⁴ (2022)	Identity doubts/cessation of a transgender identity before hormonal treatment	1/124 (0.8%)	
	Identity doubts/cessation of a transgender identity after medical treatment ^d	2/124 (1.6%)	
Deutsch ⁵⁴ (2012)	Regret after hormonal treatment	17/1944 (0.9%)	
	Reversal of the gender transition process after hormonal treatment	3/1944 (0.2%)	
Dhejne et al. ³⁵ (2014)	Request for legal and medical reversal after surgery	15/681 (2.2%)	
Fornander ⁹² (2022)	Cessation of a transgender identity/reversion to the original gender after medical treatment ^{c,e}	8/180 (4.4%)	
	Discontinuation of care before medical treatment	26/180 (14.4%)	
Gomes-Porras et al. ⁴⁹ (2020)	Stopping psychological treatment and/or follow-up before undergoing medical transition for reasons related to gender identity	4/796 (0.5%)	
	Stopping and/or reversing a transgender identity or a gender transition by social, medical, and/or legal means ^f	14/796 (1.8%)	
Gómez-Gil et al. ⁶⁶ (2022)	Cessation of a transgender identity after medical treatment ^g	5/235 (2.1%)	
Glintborg et al. ⁹⁷ (2022)**	Discontinuation of hormonal treatment for 13 months or more	108/1844 (5.9%)	
	Discontinuation of hormonal treatment for 24 months or more	72/1993 (3.6%)	
Hall et al. ⁵⁵ (2021)	Abandonment of the treatment regimen	38/175 (21.7%)	
	Stopping the gender transition process	5/175 (2.8%)	
	Discontinuation of hormonal treatment	11/175 (6.3%)	
	Treatment pattern suggestive of detransition	6/175 (3.4%)	
	Reversion to the original gender after medical treatment ^h	12/175 (6.9%)	

Tabla 3 Cont.		Prevalence of detransition/regret	
Study (year)	Criteria	Prevalence	
Kamali et al. ⁹³ (2021)	Regret after surgery	2/464 (0.4%)	
	Request for legal and surgical reversal after surgery	1/464 (0.2%)	
Karpel et al. ⁸⁶ (2012)	Regret after surgery	2/207 (1%)	
	Request for medical reversal after surgery	1/207 (0.5%)	
Khatchadourian et al. ⁹⁴ (2014)	Discontinuation of hormonal treatment and of the desire to pursue gender transition	1/84 (1.2%)	
Marinkovic and Newfield ⁹¹ (2017)	Discontinuation of hormonal treatment and request for legal reversal after surgery	1/14 (7.1%)	
McCallion et al. ⁹⁵ (2021)	Discontinuation of hormonal treatment ⁱ	7/79 (8.9%)	
Narayan et al. ³⁴ (2021)	Regret after surgery or request for surgical reversal	62/18125-27325 (0.2-0.3%)	
	Reversal surgery	36/18125-27325 (0.1-0.2%)	
Nieder et al. ⁶² (2021)	Regret after medical treatment	0/75 (0%)	
	Discontinuation of care/medical treatment ^f	13/75 (17.3%)	
Olson et al. ⁴⁸ (2022)	Change or cessation of a transgender identity, based on the modification of the pronouns used ^k	23/317 (7.3%)	
Richards y Doyle ⁸² (2019)	Reversion to the original gender ^c	1-3/303 (0.3-1%)	
Roberts et al. ⁹⁶ (2022)	Discontinuation of hormonal treatment	284/952 (29.8%)	
Segev-Becker et al. ⁸⁷ (2020)	Regret and discontinuation of hormonal treatment	2/96 (2.1%)	
Tang et al. ⁵⁷ (2022)	Regret after surgery	2/209 (1%)	
Turban et al. ¹⁰⁰ (2021)	Return to living temporarily or permanently according to the birth sex ^l	2242/17151 (13.1%)	
Wiepjes et al. ³⁶ (2018)	Discontinuation of hormonal treatment	6/333 (1.9%)	
	Regret after gonadectomy and initiation of reversal hormonal treatment (birth sex-congruent)	14/2627 (0.5%)	
Worth ⁸⁸ (2018)	Regret after surgery	28/1203 (2.3%)	

Notes. For ease of presentation, all figures have been rounded to the nearest tenth. We included treatment with puberty blockers and/or masculinizing/feminizing hormones (testosterone, estrogens) under "hormonal treatment." The prevalence estimates presented in the table include both minors and adults.

* The pooled number of patients has been corrected according to Expósito-Campos and D'Angelo¹⁰².

** The authors' definition of discontinuation also involves a shift from masculinizing to feminizing hormones or vice versa, which may include cases of reversal hormonal treatment.

^a Of the nine patients, four subsequently resumed hormonal treatment (2.8%) and five expressed no desire for medical treatment (3.5%).

^b Of the 16 patients, three detransitioned long-term (0.1%) and 10 detransitioned temporarily (0.3%). The remaining three patients expressed regret (0.1%), but only two were considering detransitioning.

^c The type of treatment or gender transition cannot be determined.

^d One after hormonal treatment (0.8%) and one after hormonal treatment and surgery (0.8%).

^e No explicit definition or criterion for detransition is given, so it has been inferred from the context of the document.

^f Six after hormonal treatment (0.8%) and three after hormonal treatment and surgery (0.4%).

^g One after hormonal treatment (0.4%) and four after hormonal treatment and surgery (1.7%). One of these patients subsequently retransitioned (0.4%).

^h Seven after hormonal treatment (4%) and five after hormonal treatment and surgery (2.9%). Regret was documented in two cases (1.1%).

ⁱ Four patients because their gender dysphoria had desisted (5.1%) and three patients because of non-compliance with the treatment protocol (3.8%).

^j Three after hormonal treatment (4%), one after hormonal treatment and surgery (1.3%), and nine before the start of medical treatment (12%).

^k Eight returned to identifying with their original gender (2.5%), one of them after beginning hormonal treatment with puberty blockers (1.1%; 1/92).

^l Of these, 1125 had started hormonal treatment (6.6%) and 371 had undergone surgery (2.2%).

transgender medicine as a whole.

First, the criterion for detransition varies widely between studies on the few occasions in which it is explicitly defined. In some, it is based on the explicit expression of regret and the request for reversal treatment^{34,36}. In contrast, in others, it is based on the request for legal and medical reversal^{35,86,93}, the reversion to the original gender^{55,58,82,86}, or the change/cessation of a transgender identity^{48,53,66,89,92} (see Table 3). The lack of consistency in the data, as well as the very specific or even restrictive characterization of detransition in some articles¹⁰⁵, is a potential source of bias and distortion in the estimates and prevents comparisons between them.

Furthermore, despite the distinction drawn above between detransition and regret, the intricate historical relationship between the two terms, the lack of clarity, and the complex conceptual diversity make it extremely difficult to separate them when categorizing and grouping prevalence estimates. In this regard, three of the studies included in the percentage of detransition (0–9.8%) talk about regret without providing a concrete definition^{57,88,90}, making it impossible to determine whether there is an identity change, a detour/reversal of the gender transition process, or simply a negative feeling of dissatisfaction associated with the medical transition. Only Tang *et al.*'s study⁵⁷ mentions a patient's interest in undergoing reversal surgery, which could indicate a possible detransition, although this procedure was eventually not performed. Their inclusion, therefore, reflects practical interest rather than conceptual coherence, highlighting some of the problems mentioned in the previous section. This contrasts with the studies by Bustos *et al.*³⁷ and Narayan *et al.*³⁴, which provide a categorization that makes it possible to discern which patients with regret detransition. In short, despite the importance of distinguishing between regret and detransition, the current state of the literature makes this task extremely difficult and forces us to continue to link the two concepts, not only when reflecting on the phenomenon but also when analyzing percentages.

Secondly, the percentage of patients lost to follow-up during the gender transition process is very high, reaching 36% in the Dutch study³⁶ and over 40% in others¹⁰². It is conceivable that those who feel dissatisfied with their transition processes, drop out of treatment, or decide to detransition do not respond to follow-ups by the GIUs and are therefore excluded from the estimates published in the literature. In fact, 76% of the participants in Littman's study⁵⁶ reported not informing their original providers of their decision to detransition, which is a significant limitation when dealing with prevalence estimates from the clinical literature.

Third, the follow-up intervals used in most studies are minimal, usually between one and two years after the start of medical treatment. Some professionals have referred to this interval as the "honeymoon period," which may not be a realistic representation of the trajectories of individuals who medically transition¹⁰⁶. The use of limited follow-up intervals drastically reduces the possibility of including those individuals whose detransition processes begin several years after the first medical intervention. In fact, several retrospective studies, including the Swedish³⁵, the Spanish^{49,66}, and the Dutch³⁶, have reported cases of detransition between four and 23 years after the start of the medical transition process. Therefore, detransition figures from studies with short follow-up intervals should be interpreted with caution.

Finally, as the introduction shows, there have been major changes in the landscape of healthcare for gender diversity. Referrals have increased significantly and new models of care based solely on the principle of informed consent have been implemented. However, most of the studies that have been conducted to date, many of which are part of the meta-analysis on regret and/or detransition³⁷, are based on more conservative treatment models with extended assessment periods, stricter eligibility criteria, and sometimes a "real life test" (a period of time during which the person had to live full time, in all areas of their life, according to their gender identity before they could receive medical treatment). For this reason, the detransition figures derived from these studies should be taken cautiously in understanding and assessing the current situation¹⁰⁷.

Etiology

The literature reviewed describes more than 50 factors influencing the decision to detransition, grouped into psychological, medical, social, cultural, and ideological factors (Table 4). Although this is not an exhaustive list (it is possible that detransition may occur for other reasons not included in this table), it provides a general idea of the factors that can lead to detransition and highlights the enormous diversity and profound complexity surrounding the phenomenon. Overall, the reasons leading a person to detransition are multiple, varied, and complex, making it difficult to establish clear patterns that allow us to understand and delimit the phenomenon.

Predictors/associated factors

Perhaps one of the most important questions relates to the possibility of predicting (and therefore preventing) the occurrence of detransition. Given that most of the physical changes associated with medical treatments are irreversible, as well as the negative emotional experiences

that may come with them^{43,56,67,108,109}, both individuals and professionals need to ensure that the decisions made are as beneficial as possible in the long term. As shown in Table 5, at least 16 psychological, sexual, social, and biological

predictors/associated factors that may increase the risk of detransition are described in the literature reviewed. However, it is important to emphasize that many of them have not yet been empirically tested⁸⁸.

Table 4	Factors involved in the etiology of detransition
Psychological	
<ul style="list-style-type: none"> - Doubts or fluctuations in gender identity^{24,34,38,42,43,49,58,65,94,98-100,109,119} - Non-binary gender identity^{36,42,43,49,53,56,63,70,109,119,132} - Remission of the distress associated with gender dysphoria^{56,67,95,109} - Failure to meet the expectations associated with gender transition^{37,39,43,46,72,79,109,115,119,121,148,173} - No improvement or worsening of previous psychological problems^{46,47,64,70,72,73,79,100,116-118,148,173}, mental health^{56,67,72,73,79,98,100,109,117} or gender dysphoria^{67,73,109,115-117,130} - Feelings of personal dissatisfaction^{37,42,49,56,109}, feelings of unhappiness, disconnection, inauthenticity, and unreality as a transgender person^{67,108,111,118,121,148,171}; or progressive comfort with the idea of reidentifying with one's birth sex^{53,56,70,79,118} - Changes in the environment (exposure to new perspectives, new social contexts)^{60,168} - Discovering that the distress attributed to gender dysphoria was caused by other factors (grief, trauma, abuse, etc.)^{36,43,47,56,67,109,121,148,167}, resolving previous mental health problems that contributed to gender dysphoria^{56,67,109}, or finding alternative ways of coping with the distress associated with gender dysphoria^{56,67,79,109,168} - Feeling that detransitioning is the right thing to do at that point in life^{43,64} or that transitioning is not the right choice^{43,46,49,69} - Experiencing identity reinforcement (increased self-esteem, self-acceptance, and empowerment)⁶⁰ or feeling satisfied with the changes already achieved^{39,43,56,62} - Comorbid decompensated psychopathology^{39,42,110,148} or misdiagnosis^{34,36,37,43,69,148} - Confusion between gender identity and sexual orientation^{24,39,42} - Fear of medical treatment¹⁰⁹ or mental health concerns^{62,67,109} 	
Medical	
<ul style="list-style-type: none"> - Physical health concerns or issues^{53,56,59,67,109,119,169}, medical complications, or unwanted/adverse side effects^{34,42,44,49,53,56,58,98,108,172} - Concerns related to fertility/the possibility of having children in the future^{67,100,109,119,132} - Dissatisfaction with the results of medical treatment^{37,42-44,49,56,59,67,88,90,109,148,172} or poor surgical outcomes^{34,43,44,148} 	
Social	
<ul style="list-style-type: none"> - Lack of family and/or social support^{34,36,37,42-44,47,49,67,100,109,132}, discrimination/victimization/rejection/stigma^{34,38,43,47,56,61,64,67,100,109,132}, social isolation/interpersonal difficulties^{46,58}, or family/social/work/professional pressure^{56,100} - Lack of support, loss, and/or difficulty in finding a partner^{34,49,82,100} - Lack of financial resources^{43,67,100,109} or work discrimination/employment difficulties^{37,56,69,100,167} - Legal reasons (custody, social services)¹⁰⁰ or incarceration^{43,63,170} - Lack of social understanding³⁶ or fear of not being cared for at the end of life^{43,169} - Difficulty in accessing medical treatment^{98,100}, integrating as a person of the experienced/expressed gender^{56,69,100,109}, or feeling that transitioning is too much of a sacrifice^{36,69,117,119} - Experiencing violence and/or sexual abuse^{47,100} - Other reasons (elite sport, moving to another country)¹⁰⁰ 	
Cultural	
<ul style="list-style-type: none"> - Discovering a relationship between gender dysphoria and feelings of internalized misogyny^{43,56,67,109,121} or homophobia^{36,56,109} - Complying with the ideas, traditions, and customs of one's own culture^{61,169} 	
Ideological	
<ul style="list-style-type: none"> - Experiencing a change in one's conception of what it means to be a man or a woman in society^{39,56,67,77,109}, rejection of the idea of perpetuating gender stereotypes^{43,118,171} or of relying on medical treatments to influence others' perception^{118,171} - Realization of the impossibility of changing one's birth sex^{79,108,109,117,148,171} - Experiencing a change in one's political/ideological^{67,69,109}, religious, or spiritual^{34,43,61,109,148,169} beliefs - Experiencing ideological pressure from another group⁵⁹ 	

In a retrospective chart review, Gomes-Porras et al.⁴⁹ identified four predictors of detransition: being a transgender woman, rapid onset gender dysphoria (ROGD), a non-binary gender identity, and lack of family support, while being of legal age was a protective factor for detransition. In addition, the authors reported that, in half of the cases, detransition occurred less than six months after treatment initiation, and in 14.7% of the cases between 6 and 12 months after treatment initiation. Butler and colleagues⁸⁹ found a higher percentage of detransition in the under-16 age group than in the over-16 age group, while Olson et al.⁴⁸ found that children who had socially transitioned before the age of six were more likely to detransition than those who had transitioned after the age of six. This may suggest that the likelihood of detransition is higher at younger ages and in the early stages of the gender transition process. However, other studies, as discussed in the prevalence section, suggest that the decision to detransition may take many more years to materialize^{35,36,56,64,66,67,109-111}. Turban et al.¹⁰⁰ also identified a non-binary gender identity, lack of social support, and male birth sex, in addition to bisexuality and not having initiated medical treatment, as factors associated with detransition in their study. Based on these findings, patients with a non-binary gender identity appear to be more likely to detransition or discontinue treatment. In this regard, Cohen et al.'s study⁸³ shows that changes in medical treatment requests are much more common in this subgroup of patients.

An exception to the previous findings is the study by Roberts et al.⁹⁶, who found a higher rate of discontinuation of hormonal treatment (with a 4-year follow-up) among females at birth and among those who had started treatment when they were older than 18 years of age. Glintborg et al.'s study⁹⁷, on the other hand, shows mixed results, with a higher discontinuation rate among patients over 25 years of age and among those who were male at birth. Also mixed are the results of Dhejne et al.³⁵, who found higher detransition rates in female at birth patients who had received treatment at a younger age and in male at birth patients who had received treatment at an older age.

On the other hand, late-onset GD, lower intensity of GD, and a history of severe psychopathology may be significant risk factors for detransition^{39,42,49,88,110,112}. In Gomes-Porras et al.'s study⁴⁹, for example, 13 of the 14 people who detransitioned showed late-onset GD, which was of mild intensity in more than half of the cases. Also, six had a psychiatric history, including depression, self-harm, and personality disorders. Similarly, a significant percentage of the participants in Littman's study⁵⁶ reported mental

Table 5	Predictors/factors associated with detransition
	Psychological
	<ul style="list-style-type: none"> - Rapid onset gender dysphoria⁴⁹ - Late-onset gender dysphoria or absence of gender dysphoria during childhood^{42,49,88,112} - Low intensity gender dysphoria⁴⁹ - Lower age at the beginning of the transition process^{49,89} - Lack of pre-treatment psychological assessment^{88,108,113-115} - Dissatisfaction with surgical outcomes^{88,172} - Non-binary gender identity^{49,10} - History of mental health problems or decompensated psychopathology^{39,42,49,110,112} - Irregular or interrupted follow-ups¹¹² - Not having initiated medical treatment¹⁰⁰
	Sexual
	<ul style="list-style-type: none"> - Confusion between gender identity and sexual orientation^{24,39,42} - Bisexuality¹⁰⁰ - Fetishistic transvestism or "autogynephilia"^{42,74,108} - Lack of sex life¹¹²
	Social
	<ul style="list-style-type: none"> - Lack of social and family support^{49,100}
	Biological
	<ul style="list-style-type: none"> - Male birth sex^{49,100}

Notes. * Although male birth sex has been identified as a possible predictor/factor associated with detransition, it is important to note that most participants in Littman's⁵⁶ and Vandenbussche's¹⁰⁵ studies were female at birth. This may be due to the recent demographic changes observed in referrals for gender dysphoria. However, most of the predictors/factors associated with detransition reviewed in the literature have not yet been empirically tested.

health problems prior to the onset of GD and the transition process. Other case studies^{39,110} have described detransition experiences framed or preceded by the development of severe psychopathology, such as schizophrenia or psychotic-type disorders. Lack of psychological assessment prior to medical treatment^{88,108,113-115}, including a poor or dubious differential diagnosis; irregular or interrupted follow-ups¹¹², lack of childhood GD¹¹², dissatisfaction with surgical outcomes⁸⁸, fetishistic transvestism or "autogynephilia"^{42,74,108}, lack of sex life¹¹², and confusion between gender identity and sexual orientation^{24,39,42} have also been associated (more or less explicitly) with an increased risk of detransition.

Nevertheless, it is difficult to determine which factors might contribute to increasing the likelihood of detransition.

Individual developmental trajectories are diverse and influenced by multiple unpredictable and uncontrollable circumstances.

Problems, difficulties, and related needs

The limited data currently available suggest a high prevalence of psychological difficulties related to the experience of detransition. These include: (1) psychological and emotional problems^{43,56,67,70,74,77,79,108,109,116,117}; (2) lack of social and professional support^{46,109,117,118}; (3) a tendency not to report the decision to detransition or not to seek professional help^{56,69,74,108,109}; and (4) difficulties in finding information and well-trained professionals^{43,79,109,119}.

Participants in Vandenbussche's study¹⁰⁹, for example, showed a high prevalence of comorbidities, particularly depression (70%), anxiety (63%), post-traumatic stress disorder (33%), and autism spectrum disorders (20%). In Littman's study⁵⁶, a significant number of participants reported various psychological problems prior to the onset of GD and the gender transition process, with trauma (37%), depression (32%), anxiety (27%), and self-harm (24%) being the most frequent. In the Canadian study⁷⁰, almost half of the participants reported that various past problems, including depression, GD, body dysmorphia, or eating disorders, had reappeared after detransition. Other articles and testimonies have highlighted the enormous emotional difficulties involved in the experience of detransitioning, including regret and various negative feelings toward the gender transition process^{43,56,67,70,116,118}, shame^{43,74,108,117}, rejection and loss of friendships^{69,79,109}, and a significant lack of support, both social and professional^{46,109,117,118}. Many of these individuals also continue to experience GD or gender-related concerns after detransitioning^{43,67,70,79,109,116,117}, and some may even develop a new form of discomfort resulting from the medical treatment they received, often referred to as "reverse dysphoria"⁷⁰.

On the other hand, in many cases, people who detransition do not inform the healthcare providers involved in the transition process of their decision or choose not to seek help^{56,69,74,108,109}, either because of the stigma attached to detransition^{43,74,79,108,109,117}, the lack of information^{43,79,119}, the difficulty in finding supportive and knowledgeable professionals^{43,79,109}, or simply because of mistrust of the medical or mental health institutions^{43,46,109,120}. This situation becomes even more relevant when considering the multiple (and often complex) needs and demands of people who detransition, as reported in Vandenbussche's study¹⁰⁹ and other sources^{43,46,69,75,79} (Table 6). All these data show that the detransition process, like the transition process, can

involve specific stressors that have a significant impact on the social and psychological functioning of these individuals, and that the attitudes of professionals play a fundamental role.

However, for some people, the process of transitioning and detransitioning can be a growth and learning experience. In Pullen Sansfaçon's study⁷⁰, several participants shared reflections on self-acceptance, liberation, and personal growth after detransitioning, particularly those with positive attitudes toward their initial gender transition process. Some expressed that they felt better psychologically, liberated from gender expectations, and more comfortable with their birth sex and body. Several participants in Stella's survey⁶⁷ responded similarly. In Durwood et al.'s research⁶⁵, participants described different trajectories of identity exploration and social detransition, generally receiving an accepting response from their social environment and not experiencing feelings of regret or rejection. In this sense, people's understanding of their processes of transition and detransition may be diverse^{67,121}, so it is important not to adopt a homogeneous prism of interpretation.

Professional approach

As mentioned above, gender detransition is still a poorly understood and under-researched issue in clinical settings. This has made it difficult to recognize detransitioners as a group with unique experiences, needs, and demands. As a result, there are currently no clinical guidelines to inform health professionals in dealing with these cases^{3,34,39,42,43,49,50,111} and no legislative considerations have been made^{3,42,49}. Although in other countries some independent therapists are already establishing care and support services for people who detransition^{122,123}, the lack of information and resources continues to pose significant challenges to these initiatives. As a result, some professionals have expressed concern about the lack of guidance in view of the growing visibility and presence of this group in our society^{3,50}. Other professionals have asked the World Professional Association for Transgender Health to consider devoting a chapter to detransition in the eighth and last edition of its standards of care for the health of transgender people^{34,42,43,111}. However, such an addition has yet to be made¹²⁴. This omission has significant consequences, as it contributes to the invisibility and delegitimization of the phenomenon and perpetuates the lack of clinical recommendations.

However, the Post-Trans initiative (an online community created by two European detrans women) has published a booklet that contains individual testimonies, advice, and resources for people who have detransitioned or are

Table 6	Needs and demands of people who detransition
Medical	
<ul style="list-style-type: none"> - Obtaining information from health professionals about: complications^{75,109} or long-term effects and risks associated with the treatments received^{45,109}, the possibility of safely stopping or changing hormonal treatment^{43,69,75,79,109}, the possibility of accessing hormonal and/or surgical reversal treatments^{69,75,109}, and the possibility of reversing the physical changes experienced^{43,75,109} - Increasing the frequency of medical follow-ups⁴⁶ 	
Psychological	
<ul style="list-style-type: none"> - Receiving psychological support to learn to cope with gender dysphoria and other related psychological difficulties^{75,109} such as internalized homophobia/misogyny¹⁰⁹, regret, and other negative feelings^{75,109}; to understand the origins of gender dysphoria, or the impact of detransitioning on one's identity^{75,79} - Finding alternatives to medicalization to deal with gender dysphoria^{75,79,109} - Obtaining psychological support to cope with detransition-related aspects such as social and physical changes¹⁰⁹, loss of friendships, rejection, and the politicization of detransition stories^{69,75,109} 	
Social	
<ul style="list-style-type: none"> - Listening to other people's stories of detransition¹⁰⁹ - Establishing counseling services, peer groups, and social support networks¹⁰⁹ - Receiving support in communicating the decision to detransition to family and friends⁷⁵ - Encouraging the representation of non-normative gender expression in everyday life^{79,109} - Finding a community that offers understanding, inclusion, and support^{46,109} - Promoting empathy, understanding, and education about detransition among health professionals and society^{79,109} 	
Legal	
<ul style="list-style-type: none"> - Obtaining legal assistance to change the name/birth sex in the civil registry^{75,109} or in relation to employment¹⁰⁹ - Receiving advice on how to pursue legal action for medical malpractice^{75,109} 	

considering doing so, which is available in Spanish⁷⁹. Although it is not a guide to action or a set of recommendations, it could be helpful as introductory or guiding material to sensitize and raise awareness among health professionals who may encounter these cases.

Clinical and bioethical implications

Gender detransition is a phenomenon of growing health and social interest. An essential part of this interest

is related with its clinical and bioethical implications, which have given rise to four important debates: (1) the questions that detransition raise for the knowledge about the etiology of GD^{51,52,72,73,125} and the unstable nature of identity^{38,43,46,48,65,70,116,126-133}; (2) the implications of detransition in the face of new models of treatment based solely on informed consent^{2,3,32,39,42-44,52,60,69,75,107,116,126-128,134-136}; (3) the divergences that exist between patients, who want to access treatments through self-determination to avoid pathologization; and professionals, who have a responsibility to avoid iatrogenesis through inappropriate or unnecessary medicalization^{53,81,84,113,128,129,134,137-139}; and (4) the impact of detransition on access to medical treatment for those who wish to medically transition and, consequently, the politicization and censorship surrounding this phenomenon^{34,40,42,43,45,47,64,76,119,126,132,140-145}.

The first debate concerns the nature of GD and identity development. In this regard, some practitioners argue that the recognition and study of detransition should be integrated into developmental theories of GD and lead to changes in clinical practice^{44,51,127}. In some cases, there is concern that GD and/or identity questioning may be acting as conduits for other complex psychological issues that materialize in the body as a maladaptive emotional coping and control strategy^{52,72-74,146}. For other professionals, detransition highlights that gender identity is not always stable, essential, recognizable, rigid, and immutable^{38,65,116,126-129,131,132,145}, but that in some people it may be subject to change and fluctuation throughout life, and that uncertainty is an inherent aspect of the gender transition process¹³². Faced with this fact, however, there are two opposing positions: (a) those who consider that detransition challenges the commonly-held idea of a "linear transition" that is permanently governed by a single goal (complete medicalization), understanding it as part of the journey or process of self-understanding^{43,46,48,70,116,130}; and (b) those who emphasize the implications of this "instability" for the proposed models of intervention^{127,133}. A particularly controversial aspect of this debate is the phenomenon of ROGD, as the possibility that ROGD is contributing to an increase in the number of detransitioners has been raised and discussed^{52,125,146,147}.

The second debate concerns the relationship between detransition and recent changes in the treatment of GD. In this regard, a sector of the clinical community has expressed concern and uncertainty that the implementation of treatment models based solely on informed consent may be behind the increase in the number of detransitioners^{2,3,32,44,107,127,135,136}. Several detransitioners have expressed that they did not receive sufficient (or any) psychological assessment and/or counseling before transitioning, that they were not adequately informed about treatments and their

consequences, or that they underwent rushed medical transition processes^{46,47,56,67,70,109,116,148}. For this reason, some professionals have insisted on the need to develop non-medicalized approaches to GD and to improve the informed consent process^{43,60}; for instance, by conducting comprehensive assessment phases^{3,39,42,52,75,116}, by broadening the range of treatment options^{39,52,60,69,75,136}, and by including the discussion of detransition as one of the possible outcomes of a gender transition^{127,142}.

Another sector of the clinical community, however, considers that detransition and regret are unpredictable^{43,126,128,134}, even if there are measures for prevention and risk minimization^{88,134}, and that emphasizing these aspects can lead to a pathologization of transgender identities¹⁴⁹. In short, there is concern about the influence that the study of detransition could have on health practices focused on the treatment of GD¹³⁴. In this vein, some authors have argued that the discomfort associated with social and/or medical transition for those who eventually detransition is not meaningfully comparable to the discomfort caused by delaying or discouraging gender transition⁴⁰, and that detransition does not invalidate informed consent or violate the Hippocratic principles of beneficence and non-maleficence^{126,150} because the original recommendation to transition sought to maximize well-being and minimize the psychological risks associated with the absence of treatment. In parallel, there has been considerable debate about the possibility of truly informed consent, especially in the case of minors, in light of the existing evidence for the medical treatment of GD and its irreversibility, as well as other ethical aspects related to autonomy, decision-making capacity, and the balance between the risks associated with treatment and the risks of not receiving it^{103,104,127,141,142,151–165}.

The third debate concerns the divergence between healthcare professionals and patients seeking treatment. On the one hand, patients want access to treatment while avoiding paternalism and pathologization by professionals. On the other hand, professionals have a strong sense of responsibility toward their patients and therefore wish to avoid any potential iatrogenic risk or harm to their health, including detransition or regret^{45,84,113,137,138,166}. Professionals' concern about this possible outcome has shaped the healthcare paradigm for GD through a series of mechanisms designed precisely to prevent and minimize risks^{81,88,128,129,134,138}, such as psychological assessment phases, delaying treatment, or even restricting the access to it^{134,139}. Some detransitioners, for example, have expressed that they would have felt pathologized or would not have listened to reason if someone had intervened to slow down or delay their transition process, but that, in retrospect, they

wish someone had done so⁴³. This creates a paradox that is difficult to resolve and highlights the dilemmas faced by professionals and patients in making decisions, many of which occur at a time of profound change and instability such as adolescence.

The fourth and final debate stems from concerns that detransition may be instrumentalized and used to discredit the legitimacy of transgender identities and to hinder or impede access to treatment^{34,40,42,43,45,47,64,76,119,126,132,140–145}. In this regard, some voices have insisted that research on detransition should focus on providing support rather than prevention, as the latter implies negative value judgements and may convey the idea that detransitioning is not a viable option or that there is "no life" after detransitioning⁷⁶. Others have reflected on the motivations of those who seek to minimize or invalidate detransition experiences by labeling them as "irrelevant"⁴⁷ and on the possibility of recognizing and making sense of them from a perspective of inclusion, acceptance, and tolerance^{41,47}. The politicization of the phenomenon creates an atmosphere of censorship that affects people who detransition, people undergoing gender transition processes, and the professionals involved.

STRENGTHS AND LIMITATIONS

The strengths of the study include, firstly, the number of sources consulted and the thoroughness of the review, which provides a complete overview of the phenomenon of detransition, including not only those with the most significant international impact, but also those published in national journals of lesser relevance and those from the grey literature, which are nevertheless of interest in clinical settings. Secondly, the literature search was limited to last 13 years, allowing the study of detransition to be placed in the current context, taking into account changes in the profile of referrals and treatment models. Finally, a critical analysis of the content was carried out, highlighting the confusion, controversy, and complexity surrounding the phenomenon, particularly with regard to the terminology and definitions used, the prevalence estimates, and the clinical and bioethical implications.

In terms of limitations, it should be noted that no strict inclusion and exclusion criteria were established. Therefore, some of the documents reviewed may not have been subjected to the usual scientific standards and may contain biased or partial information. In addition, the available evidence was not ranked hierarchically or assessed for methodological quality. Therefore, all the information in the registries was given equal weight and consideration in the content analysis.

CONCLUSIONS

Gender detransition is an emerging phenomenon for which there is currently little data. The terminology is diverse and used confusingly, demonstrating the need for more consensus in the scientific community. Available estimates suggest a relatively low prevalence, although higher than previously assumed. However, these figures are limited by the lack of conceptual consistency, the loss of patients during follow-ups, and the tendency of many patients not to report their detransition, suggesting a possible tendency toward underestimation. The factors and conditioning circumstances surrounding the phenomenon are multiple and diverse, making it difficult to identify clear patterns. In general, detransition is an experience that involves significant psychological challenges and a need for substantial social and professional support. The lack of professional guidelines is an additional challenge in view of the increasing visibility of this group. For all these reasons, it is imperative to address the study of this phenomenon with a systematic, rigorous, and committed approach that allows us to progress in its understanding and to develop therapeutic tools aimed at increasing the well-being and integration of people who detransition.

FUTURE PERSPECTIVES

Despite being a poorly understood and under-researched reality, detransition raises essential questions about identity development, the origins of gender-related distress, and the response offered by health institutions in a social and cultural moment of continuous change and challenge. Even though the provision of care outside reference GIUs has contributed to the progressive loss of casuistry³, it is increasingly necessary to start systematically collecting information on detransition with a threefold objective: (1) to know the extent of this phenomenon; (2) to understand the experiences and motives underlying detransition, as well as their characteristics and specificities; and (3) to use all this information to implement specific healthcare services and protocols that ensure the comprehensive care and well-being of people who detransition.

In addition, the systematic collection and study of detransition could provide a more complex, in-depth, and nuanced view of the evolutionary trajectories of GD, identity development, and the impact of medical treatments, thus contributing to improving healthcare for people experiencing gender-related distress, either by refining current therapeutic tools or by developing new approaches. Furthermore, given the controversy and the atmosphere of censorship surrounding this phenomenon, this information

would allow professionals to develop a clinical and scientific view of detransition, which could contribute to generating perspectives that are more on line with the reality of healthcare.

Conflict of interest

The authors declare that they have no conflicts of interest.

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