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Characteristics of trans and non-binary children and adolescents who attended a tertiary hospital

Valeria Mulli[1], María Zabalza[2], Alfredo Eymann[1], Guillermo Alonso[3], María M. Bellomo[1], María C. Bertini[1], María F. Kuspiel[3], María N. Ormaechea[4], Cristina Catsicaris[1], Julio Busaniche[1]

ABSTRACT

Introduction. The trans population in Argentina represents 0.43%. Our objective was to describe the characteristics of trans and non-binary children and adolescents.

Population and methods. A cross-sectional study was designed. The population was all trans or non-binary persons under 24 years of age seen by an interdisciplinary team in a tertiary university hospital from January 2019 to May 2023. The sample was obtained from the database of patients seen by reviewing electronic medical records (EMR).

Results. The EMRs of 107 individuals were analyzed; the average age at first consultation was 15.3 years, and the age of self-perceived transgender identity was 11.1 years.

Seventy-two percent perceived themselves as having a trans male identity; in 89.7%, their gender expression was by their self-perception, and 46.3% had a bisexual sexual orientation.

Seventy-six percent acknowledged having family support; 87.3%, school support; and 92.5%, peer support. 44.8% had a hormonal strategy, 14.1% had surgery, 57.1% had mental health intervention, and 29.1% received psychiatric medication.

Only three patients (2.8%) detransitioned their gender identity.

Conclusion. Most individuals were trans men and perceived good support from their environments. Almost half received a hormonal strategy; less than a quarter received a surgical intervention; more than half received a mental health intervention. The detransition was infrequent.

Keywords: *adolescent; transgender people; gender identity; Argentina.*

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[1] Section of Adolescence; [2] Section of Infanto-Juvenile Gynecology; [3] Section of Pediatric Endocrinology; [4] Section of Pediatric Urogynaecology; Hospital Italiano de Buenos Aires, City of Buenos Aires, Argentina.

Correspondence to *Valeria Mulli: valeria.mulli@hiba.org.ar*

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INTRODUCTION

Trans and non-binary children and adolescents are people who experience an internal and individual experience of gender that does not correspond to the sex assigned at birth.[1-3]

It is complex to estimate the proportion of trans and non-binary people in a population. Some research has determined a variability through surveys between 0.3% and 4.5% in the adult population and between 2.5% and 8.4% in children and adolescents.[3,4] Likewise, it has been reported that the adult population attending the health system ranges between 0.02% and 1%.[3,5]

Cultural differences from one country to another could modify behavioral expressions of different identities.[6,7]

The trans population in Argentina was estimated at 0.43% of the country's population in the 2022 census. Of this percentage, 0.16% were trans men, 0.13% were trans women, 0.08% were non-binary, and 0.06% were none of the above. Within this population group, 27% were reported to be under 17.[8]

Trans and non-binary children and adolescents often face unique challenges due to their gender identity. They may experience discrimination and social exclusion, and harm their well-being and mental health. Consequently, they may require the use of hormonal, surgical, and mental health support strategies more frequently than the general population.[1,3,9-11]

In Argentina, trans and non-binary children and adolescents have legal and social protections. In 2012, Law 26743 on gender identity was approved, which allowed people to change their name and gender in their identity documents and to have full access to health care.[12]

According to the National Registry of Persons, more than 9,000 people chose to rectify their national identity card, and 15% were under 15.[13]

Concerning education, in 2006, the law that made it possible to outline the Comprehensive Sex Education Program and the guidelines for the care of children and adolescents with the right to gender identity were approved.[14] Despite these legal and social protections, there are still challenges for trans and non-binary children and adolescents. Discrimination and violence continue to be a problem, especially in rural areas and among the most socially vulnerable populations.[15-19]

Living according to one's identity is a right, and exercising it to be in harmony with the world requires visibility and understanding of society as a whole, including family, school, community, and health organizations.[15-19] Therefore, it is essential to broaden research agendas and review training strategies and the approach of clinicians and specialists not to reproduce practices that hinder free development by gender identity and to incorporate others that protect the rights of children and adolescents of this group.[15,19]

This led us to work in an interdisciplinary manner for the care of children and adolescents with diverse sexualities.

There are few studies in our country on this population. Therefore, our objective was to describe the characteristics of trans and non-binary children and adolescents who attended a tertiary-level university hospital.[15,16,19]

POPULATION AND METHODS

A cross-sectional study was designed. The population included were all persons under 24 years of age seen by at least one member of an interdisciplinary team for the care of trans and non-binary persons, composed of professionals in pediatrics, adolescence, gynecology, endocrinology, pediatric surgery, plastic surgery, and mental health from January 2, 2019, to May 31, 2023. All patients registered in the team's database were included, and electronic medical records (EMRs) were reviewed.

The variables analyzed were the age of self-perceived trans and non-binary gender identity (years), age of first consultation with a professional of the interdisciplinary team (years), gender identity (trans male, trans female, and non-binary), gender expression according to self-perceived gender (yes-no), sexual orientation (heterosexual, homosexual, bisexual, pansexual, asexual, don't know, other), education and work (yes-no), history of comorbidities (yes-no) defined as disorders that have required medical treatment for more than one year (yes-no), perceived peer, educational, and family support (yes-no), sexual initiation (SRI) (yes-no), age at SRI (years), change in ID card registration (yes-no), change of gender in EMR (yes-no), change incorrectly registered in EMR (yes-no), hormonal strategy (yes-no), type of hormonal strategy (cross-induction, pubertal inhibition with GnRH analog, progestogen oral contraceptives), surgical strategy (yes-no), type of surgical strategy (thoracic masculinization, vaginoplasty, and vulvoplasty), mental health requirement (yes-no), use of psychiatric medication (yes-no), psychiatric hospitalization (yes-no), main body discomforts,

and detransitions (yes-no).

Categorical variables were expressed by absolute number and percentage, and continuous variables by mean, standard deviation, and range. The chi-square test was used to associate categorical variables, and the Student t-test was used to measure continuous variables. A *p*-value <0,05 was considered significant. The statistical program Stata 14Ô was used.

The study was approved by the Ethics and Research Protocols Committee (PRIISA registration number 10157) and conducted according to the guidelines outlined in the modified Helsinki Declaration.

RESULTS

The EMRs of 107 trans and non-binary children and adolescents were analyzed. The average age at first consultation was 15.3 years (range 7-22). Of these, 7 patients consulted in the prepubertal stage; the rest had already entered puberty, and only 3 patients were 22 years old. The mean reported age of self-perceived transgender identity was 11.1 years (range 2-20). Twenty-three percent reported their self-perceived trans or non-binary gender identity at less than 9 years of age.

Seventy-two percent perceived themselves as having a trans male identity; in 89.7%, the gender expression was by their self-perceived gender. The gender expression variable arose from the observation made by the attending physician at the time of the interview and was recorded in the EMR. The sexual orientation referred to in 46.3% was bisexual. The rest of the characteristics are described in *Table 1*.

Seventy-six percent acknowledged having family support; 87.3%, school support; and 92.5%, peer support.

Thirty-three percent processed the change of sex in their identity card; 38.4% processed the change of gender and name in the EMR (for which they do not need the identity card change), but in half of these cases, the registry modification was incorrect.

Only three patients (2.8%) detransitioned their gender identity, and none of these cases had undergone surgery.

Table 2 describes the strategies of psychiatric, hormonal, and surgical therapies, and in *Table 3*, the main discomforts manifested according to gender identity.

The proportion of trans women was significantly higher in the under-9 group compared to the oldler children group, where there was a higher proportion of trans men, 32% vs. 14% ($p = 0.04$).

No association was found between the use of psychiatric medication and the use of surgical interventions ($p = 0.4$). An association was found between the use of hormonal and surgical interventions ($p = 0.001$) and a greater use of hormonal strategies at older age ($p = 0.04$).

Of the total, 87,9% are in clinical follow-up (defined by the presence of consultations in the last year with a team professional) by professionals of the interdisciplinary team.

DISCUSSION

In our study, the population included were all persons under 24 (7-22 years old) attended by at least one member of an interdisciplinary team for the care of trans and non-binary persons. According to different authors, we considered 24 as the cut-off point for adolescence.[20] This concept defines the end of adolescence when some social roles have been completed in addition to reproductive capacity: life project, autonomy, and independence, among others. Our working group, and many others, are concerned with the health of people up to 24 years old.

Most of the children and non-binary children and adolescents were trans males. This data is consistent with other studies on trans children and adolescents and the 2022 census in Argentina. On the other hand, multiple studies of the adult trans population report that most people are trans women, but only those who consulted the healthcare system were included.[1,3,4,7,9,13,15]

The average age at the onset of the transgender identity was 11 years; almost a quarter of the children and adolescents reported perceiving a trans or non-binary identity between the ages of 3 and 9 years. The assumption of identity is a complex process that involves different biographic moments in people. In a study conducted in the City of Buenos Aires, where a survey was conducted with 202 trans people between 18 and 65 years of age, 92.2% of the total reported self-perceiving themselves as trans before the age of 13, but that it took them longer to assume the social role of this identity. Likewise, 54% were able to socially express their identity between the ages of 14 and 18, representing an increase over data from a similar study in 2005 in which 45% were able to express their identity in this age group.[17-19]

It is striking that the trans women in our study

Table 1. Characteristics of trans and non-binary children and adolescents (n = 107)

	n		
Age at first consultation in years, mean (SD)	107	15.3 (3)	
Age of self-perception of trans or non-binary gender identity in years, mean (SD)	96	11.1 (4.3)	
Gender identity, n (%)	107	trans male	77 (72)
		trans woman	18 (16.8)
		nonbinary	12 (11.2)
Sexual orientation, n (%)	84	bisexual	39 (46.3)
		heterosexual	26 (31)
		homosexual	14 (16.7)
		pansexual	2 (2.4)
		asexual	1 (1.2)
		other	1 (1.2)
		does not know	1 (1.2)
Gender expression according to self-perception, n (%)	87	78 (89.7)	
Initiation of sexual relations, n (%)	96	33 (34.4)	
Age of onset of sexual intercourse, mean (SD)	33	16.1 (1.4)	
Studying and/or working, n (%)	107	102 (97.1)	
Comorbidities, n (%)	107	27 (25.2)	

n: number, SD: standard deviation.

Table 2. Therapeutic strategies in trans and non-binary children and adolescents (n = 107)

Hormonal strategy, n (%)			48 (44.8)
Type of hormonal strategy, n (%)	Cross hormonal induction		27 (25.2)
	Pubertal inhibition (GnRH analogue)		8 (7.5)
	Pubertal inhibition and cross-hormonal induction		6 (5.6)
	Progestogenic oral contraceptives		7 (6.5)
Surgical strategy, n (%)			14 (13.1)
Type of surgical strategy, n (%)	Trans men (n = 77)	Masculinization of the thorax	12 (15.5)
	Trans women (n = 18)	Vaginoplasty + vulvoplasty	1 (5.5)
		Vulvoplasty	1 (5.5)
Mental health intervention, n (%)		60 (57.1)	
Psychiatric medication, n (%)		30 (29.1)	
Psychiatric hospitalization, n (%)		8 (7.8)	

n: number.

Table 3. Main bodily discomforts of trans and non-binary children and adolescents by gender identity (n = 107)

Trans men, n (%) n = 77	Presence of breasts	45 (58.4)
	Menstruation	26 (33.7)
	High-pitched voice	3 (3.9)
	Wide hips	1 (1.3)
Trans women, n (%) n = 18	Male genitalia	7 (39)
	Absence of breasts	4 (22.2)
	Virile face	1 (5.5)
	Leg hair	1 (5.5)
Non-binary, n (%) n = 12	Presence of breasts	6 (50)
	Dysmenorrhea	3 (25)
	Menstruation	1 (8.3)

n: number.

manifested their gender identity at an earlier age than trans men. This is likely because trans men perceive less discrimination from the social environment during childhood. After all, usually, there is greater tolerance of gender stereotypical behaviors.[15-17,19,21] The onset of puberty, with the appearance of secondary sexual characteristics and menarche, usually favors consultation with the health system.[22-24]

In most trans and non-binary children and adolescents, gender expression was by self-perceived gender, and about sexual orientation, almost half declared themselves bisexual. In the first survey on the trans population in 2012, nearly half of the people stated that they began to change gender expression between the ages of 13 and 17.[17-19,21,22]

The trans and non-binary condition is constructed from each subject's perception. There is controversy in the literature about carrying out diagnostic studies or waiting until a certain age to accompany trans and non-binary persons in the health system. There is a tendency to respect the dynamic perceptions of each child and adolescent. [1,3,19,25-27]

In our study, the children and adolescents who consulted received family support regarding health insurance and emotional support. This aspect was relevant since family support or rejection is critical to the comprehensive health of adolescents. It has been described that those who do not have family support have 6 times the risk of depression and eight times higher risk of attempted suicide than the general population.[21]

In addition, other studies reported that 70% of transgender people reported having moved away from their family when they were not yet of legal age. The reason for moving away was to assume their trans identity, and the younger the age of this assumption, the sooner they left home.[19,21,24]

Almost all the children and adolescents in the sample were studying and working and reported a high level of peer, school, and family support. Likely, the development of more inclusive legal frameworks and the growing acceptance of diversities by the community have allowed for a better integration of this group.

Considering intersectionality –understood as an analytical tool that recognizes that multiple social factors such as gender, ethnicity, social class, and disability converge and multiply inequalities, disadvantages, and discrimination– it should be noted that our population is composed of families with high school or university education, paid work and access to the health system.

A study conducted in Argentina in 2012 reported that 6 out of 10 trans women and 7 out of 10 trans men had dropped out of high school before the age of 18 because of discrimination suffered by school peers, teachers, and non-teaching school staff.[21]

It is to be expected that trans and non-binary children and adolescents feel the desire to have a body by their gender perception. Almost half demanded and received hormonal therapeutic strategies, like the 35-45% of cases described in November 2022 by a panel of experts.[19,21,23]

This work reinforces the importance of consultation with a comprehensive approach adapting the strategies to each patient. Most of the literature supports the use of these strategies to mitigate the psychological discomfort generated by living with unwanted secondary sexual characteristics to their gender perception.[3,27,28] The experiences around gender and body modifications are diverse and unique; not everyone has the same expectations or wishes to carry out modifications.[1,3,18,19]

Clinical practice guidelines recommend a three-pillar approach: psychological, hormonal, and surgical strategies.[3,19,28] There is a tendency to provide flexible hormonal strategies according to the needs and desires of each child.[3,19]

The most frequently performed surgery was thoracic masculinization in trans men and, less frequently, vaginoplasty and vulvoplasty in trans women. However, the percentage of surgical strategies in trans women and trans men was the same.

It was expected that the use of hormonal strategies was chosen at an older age and that it has been associated with surgical interventions. The identity process is complex, prolonged, and flexible. Finally, although it is very infrequent, only 3 patients in our series detransitioned.[3]

The main discomforts reported in trans men were the presence of breasts and, in trans women, male genitalia.[1,3,15]

We consider it essential to express that gender changes in medical records should be done correctly within the current regulatory framework. It is part of the monitoring and validating of this population, for which we must continue internal training.

This study has limitations, such as that it was conducted in a single healthcare center with an urban population with access to health

insurance, and the information was retrieved from the electronic medical record. However, we consider that it provides valuable information for understanding trans and non-binary children and adolescents in our community.

CONCLUSION

Most of the children and adolescents were transgender males and perceived good support from their environments. Almost half received hormonal therapeutic strategies; less than a quarter underwent surgical interventions; more than half required mental health intervention. Detransition was infrequent. ■

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