

Transgender population in the Russian Federation: diversity and trends

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Abstract

This report presents socio-demographic data of gender incongruent patients, searching for gender affirming medical care (GAMC) in Russia by retrospective medical records analysis of patients. Data of 1117 patients were included in the analysis. Over the period from 2014 to 2021, there was a significant increase in the number of applications (+123.2%). Among all transgender individuals 44.01% were trans female (MtF) and 55.99% (n=630) were trans masculine (FtM), 1.2% was non-binary persons. The average age for GAMC application in MtF was 26 years and in FtM was 23 years. Majority of patients experienced gender incongruence (GI) since pre-pubertal age (median 11.0). Age of acceptance oneself as a "transgender" was 17.0 years, earlier in FtM, later in MtF. The first coming-out was made at 20 (22 for MtF, 19 for FtM). Depression was diagnosed in 82.4% cases, 12.6% of patients have suicide attempts. 53.6%, were already taking hormonal therapy (76.7% MtF, 32.3% FtM). The Russian transgender population is big, stigmatized, ethnically and culturally heterogeneous group, that has little visibility. Further research is essential for formation of professional attitude in the medical environment.

Key Words: gender dysphoria; gender incongruence; demography; socio-demographic portrait; transgender health.

Eur J Transl Myol 33 (2) 11419, 2023 doi: 10.4081/ejtm.2023.11419

For the last decade the phenomenon of gender incongruence (GI) has become a widely discussed topic in many aspects, and medical aspect of this phenomenon is probably the most important.^{1,2} Around the world many healthcare providers mention a great increase in transgender patients' application for medical care and this paper represents our findings in Russian cohort.³ Russia is a huge country with 145478097 citizens according to Rosstat data (January 2022, <https://rosstat.gov.ru/>). If we will extrapolate results of the work by E.L. Meerwijk et al.⁴ that 0.39% of the US population identifies themselves as "transgender", we will get the number of approximate 567364 gender incongruent people in our country. Some research, such as GIRES, states number up to 0.5% in the UK,⁵ and that means an even bigger population, that has their right to access for the medical care. GI, according to ICD-11, is characterized by a marked and persistent incongruence between an individual's experienced gender and the assigned sex. Gender variant behavior and preferences

alone are not a basis for assigning the diagnoses in this group.⁶ Gender incongruent persons may face misunderstanding and rejection from their families, doctors, teachers and employers.^{3,7-9} These factors have a great negative impact on psychological and mental wellbeing. A series of researches confirm high suicide rate among people with gender dysphoria (GD), especially teenagers.¹⁰ A plenty of works prove that gender-affirming procedures (GAP) improve the quality of life in trans-patients, enrich their socialization potential and reduce suicide rate.¹¹ Organization of transgender inclusive healthcare system is essential for the community and its wellbeing.¹² Several studies in other countries show that the trans-population is generally dissatisfied with medical care,¹³ Russia isn't an exception. As trans-gender people find little understanding in the medical instances, they obtain information about the treatment from the web or their friends, and this information might be distorted. Quite often dysphoric persons start hormonal therapy without proper control and supervision, putting their health at

great risk.¹⁴ In Russia oral estrogens and progesterone, oral antiandrogens, as well as testosterone and estrogen gels could be bought in a pharmacy without any prescriptions. Recipe is required only for injectable forms. So, many trans-people simply get different protocols online and start affirmative hormonal therapy (AHT) on their own initiative. This is specific for our country and has negative side (no medical control).^{13,15} In Russia no GAMC are covered by government medical insurance, so all procedures are paid by the patients on their own. According the Order of the Ministry of Health of Russian Federation No. 850 dated 10.23.2017 “On the Approval of the Form and Procedure for Issuance of a Gender Reassignment Document by the Medical Organization” permission for GAP (reference of stated form) is given by a medical commission, which includes 3 specialists: psychiatrist, clinical psychologist and sexologist. To get the permission a person should be over 18 years and have a diagnosis of F64.0 (ICD-10) “transsexualism” stated by the commission.³ After getting this document a person might undergo AHT and SAS (sex-affirmative-surgery). An epidemiological study for this group of patients is difficult to design, due to the lack of databases and universal approach.¹⁶ There is no national register for such people and it’s almost impossible to get the proper information. Not everybody is changing their sex-coding in the documents, thus, the passport office database is also of little help. Moreover, some gender incongruent people might live in a preferred social role without any GAP. The first publications concerning the incidence of “transsexualism” and its demographic characteristics were made by Benjamin (1967). Based on his own observations, he stated the ratio of trans-women (MtF) to trans-men (FtM) as 8:1.¹⁷ According to a recent meta-analysis of European data (Arcelus et al., 2015) based on clinical records, the incidence of trans people appeals for medical care is 4.6:100,000 (6.8:100,000 for MtF and 2.6:100,000 for FtM).¹⁸ Winter et al. (2016) raises this number to 0.5% of the Earth's total population, which equals about 25 million people.¹⁹ The tendency of increase in demand for GAMC is observed in developed countries, including England, USA, Belgium,²⁰⁻²² and in lower income countries, such as Iran, Brazil and Mexico.²⁶⁻²⁸ Full information is also available on Belgium. According to the Belgian national register (2015), there 428 transsexuals in the country, at that, MtF to FtM ratio is 69.1% to 30.9%. In 2015, Motmans et al. published sociodemographic data on transsexual patients in Belgium. The study included 223 people (118 MtF, and 38 FtM), 29.7% of them were married (34.7% MtF, 13.5% FtM), 21.2% were divorced (MtF), 58% MTF and only 8% FtM had children, and 65% of trans-people (67% MtF, 61% FtM) were employed.²³ Serbian scientists described 30 transsexual patients (18 MtF, and 12 FtM) and their level of education: 16.6% finished primary school, 66.6% received secondary education, 13.3% graduated from the colleges, and 3.3% received

higher university education.²⁴ Reconstruction of the sociodemographic portrait of transgender individuals may be of great interest for psychiatrists, endocrinologists, general practitioners, sociologists and other specialists. This data may help integration in the community and formation of professional attitude in the medical environment.

Objective of the present research is to present socio-demographic data of gender incongruent patients who are seeking established medical treatment in the Russian Federation.

Materials and Methods

We performed retrospective medical records analysis of patients who applied for GAMC to the private psychiatric medical center “Scientific center for personalized medicine” (Moscow, Russia). The study of vulnerable groups was carried out in accordance with all ethical principles. All participants, or their guardians in case of minors, signed an informed consent form before enrolment. The study was accepted by the local ethic committee of “Scientific center for personalized medicine” at 25.08.2021, protocol #6. The center offers psychiatric, psychological, endocrine care and psychotherapy. We do not give permission for AHT or SAS to the teenagers under 18 years, but provide psychological and psychiatric care for the patient and their families. We do not perform any surgical managements. The center’s records are not part of any national register. Study included data of the patients, who applied for GAMC with the symptoms of GI and GD from January 2014 to April 2021. Teenagers younger than 18 years were also included in the analysis of demographic data. We analyzed: number of applications to the center; patients’ anamnesis (gender identity, current age, ethnicity, family structure, level of education, employment, matronymic status, children, sexual anamnesis); history of GI (age of the first GI or GD symptoms, age of receiving information about GI, age of acceptance oneself “transgender”, age of the first expression in desired gender, years of socialization in desired gender, age of application for GAMC, attempts to live in a passport gender in the past); history of AHT; comorbid pathology and body mass index (BMI) according Kettle formula. Data was collected by clinicians of the Center in a detailed interview.

Statistical analysis was carried out in the program Statistica 10 for Microsoft (StatSoft, Russia) using descriptive statistics, parametric and non-parametric methods of analysis. In the case of a representative sample, the values are given as the mean and standard deviation $M \pm m$. In the case of a non-representative sample, the data are given as the median and the 25th and 75th quartiles: Me [Q1; Q3]. Comparison of intergroup differences was carried out using Student's T-test or Mann-Whitney U-test. To compare qualitative features, analysis was carried out using Pearson's χ^2 test. When

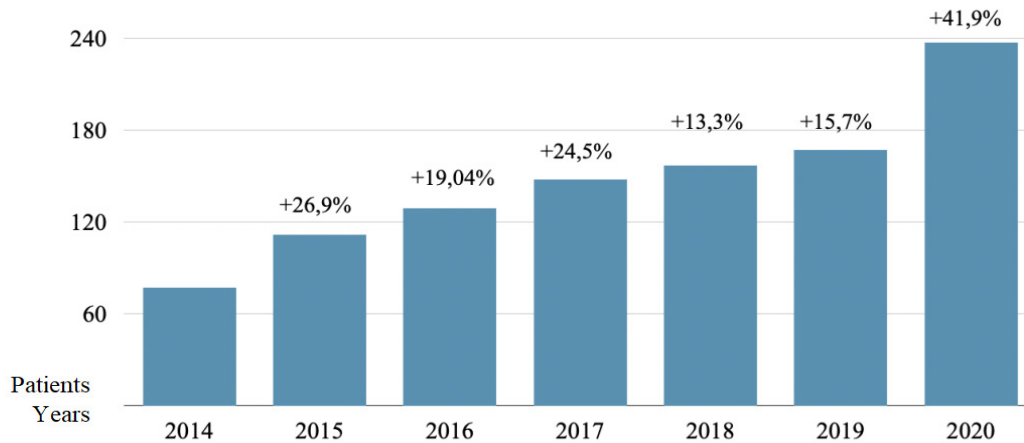


Fig 1. Increase in the number of applications of transgender patients by years.

Note. The % of increase is presented in regard to the previous year.

testing statistical hypotheses, the critical significance level p was taken equal or less than 0.05.

Results and Discussion

Increasing demand for gender affirming medical care

There were 1117 individuals included in the analysis. Over the period from 2014 to 2021, there was a significant increase in the number of applications in order to receive GAMC. If in 2014 we had only 77 patients, then in 2020 this figure reached 237 people, which means about +123.2% growth over 7 years. Detailed data is presented in Figure 1. Only for the period from January to April 2021, 90 patients applied for medical care.

History of gender incongruence.

The median age for application for GAMC meets 24 years (from 15 to 65 years) in the total group. Among all

transgender individuals 44.01% (n=515) were trans feminine (MtF) persons and 55.99% (n=630) were trans masculine (FtM). Four MtF and ten FtM identified themselves as non-binary persons (1.2%), but all of them desired to undergo AHT and to correct gender markers in the documents. The average age for GAMC application in MtF was 26 years (15 to 65), and in FtM was 23 years (16 to 52). Most of the patients in both groups applied in the period between 20 and 29 years (48.4%). See figure 2 for details. Majority of patients experienced GI and GD for the first time in childhood, in pre-pubertal or early pubertal age (median age 11.0), FtM slightly earlier than MtF. It took more than 10 years to apply for the GAP (at 24 years median), table 1. The age of getting information about “transgenderism” and GI was from 11 to 17 years, median 14, comparable for MtF and FtM. One of the stigmatizing social opinions in our country is that GI is a “temporary fashion trend”. But we see, on average, after

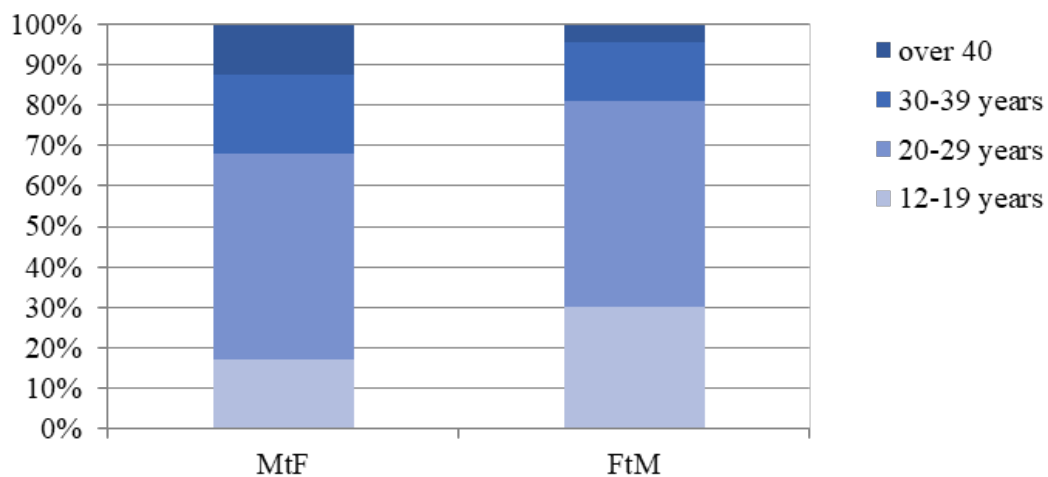


Fig 2. Age of appealing for gender affirming medical care.

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Table 1. Anamnesis trends in gender incongruent people.

Parameter	Total (n=1117)	MtF (n=515)	FtM (n=630)
Age of the first GI symptoms at (years)	11.0 [6;12]	11.0 [6;13]	10.0 [3;11]
Age of receiving information about “transgenderism” and GI at (years)	14.0 [11;17]	14.0 [12;17]	14.0 [11.17]
Age of acceptance oneself as a transgender person at (years)	17.0 [13;20]	18.0 [14; 22]	16.0 [13; 19]*
Attempts to live in a passport gender (% , n)	66.8% (746)	71.2% (366)	63.4% (399)*
The first steps of expression in desired gender at (years)	20.0 [17;26]	22.0 [18; 26]	19.0 [16; 24]*
Socialization in desired gender for (years)	2.0 [1.0;4.0]	2.0 [1.0;3.0]	2.0 [2.0;5.0]
Age for GAMC application at (years)	24.0 [20;31]	26.0 [15; 65]	23.0 [16; 52]*

Note. * Significant differences between MtF and FtM groups, Mann-Whitney’s U-test or Pearson’s χ^2 test, $p < 0.05$

getting information, it took from 1 to 4 years for our patients to accept themselves as “trans individuals” and 3 more years to the first expression in desired gender (wear appropriate clothes, accessories, and hairstyles, use their chosen names, correct proper verbs and pronouns in communication). During the period of acceptance 66.8% tried to “live normal life” (in accordance with passport

gender), but these attempts lead to periods of depression, anxiety and self-harm. Significantly higher such attempts were in the MtF group, $p=0,01$. We see that gender incongruent patients, at the moment of applying for GAMC, already live in the desired gender for the median of 2 years, Table 1.

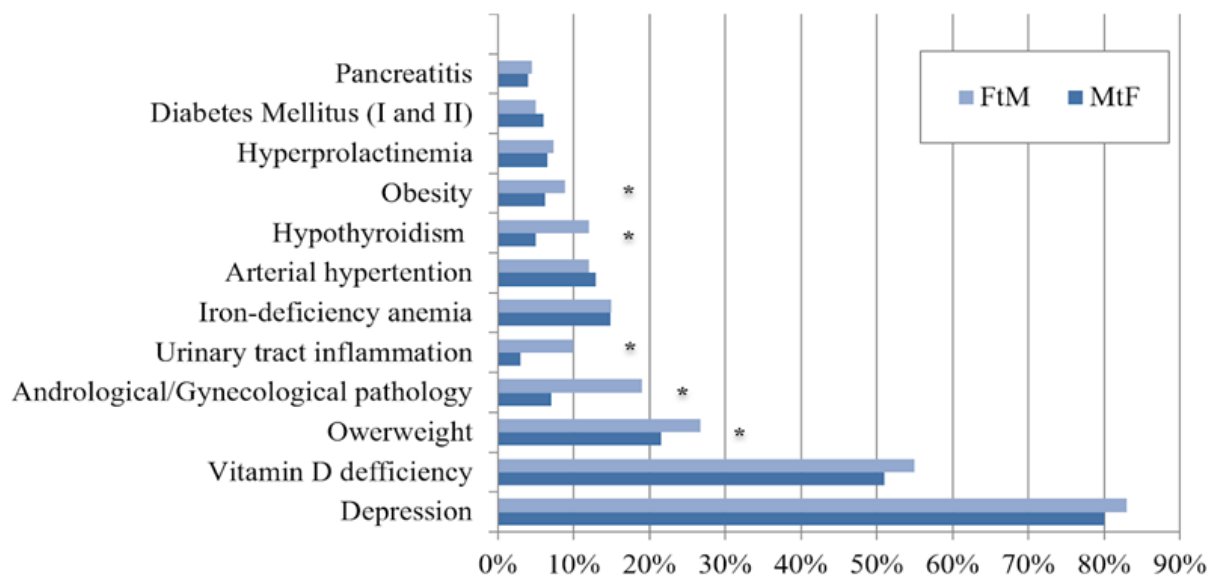
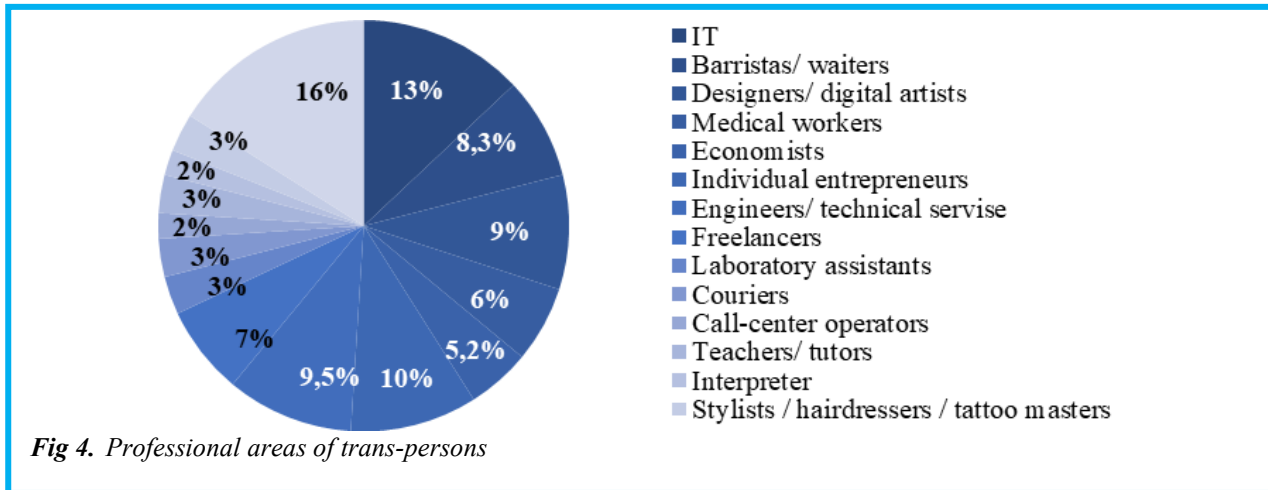


Fig 3. Comorbid pathology in gender incongruent patients.

Note. * Significant differences between MtF and FtM groups, Pearson’s χ^2 test, $p < 0.05$.



Ethnicity, family and sexuality

Our study group was ethnically heterogeneous: 94.4% (n=1054) identified themselves as “Russian”, though this data might be not highly relevant as Russia is a multinational and multicultural country. Remaining 5.6% minority (n=63) was represented by the Tatar ethnic group (n=20), Ukrainians (n=10), Jewish people (n=6), Kazakhs (n=6), Uzbeks (n=5), Tajiks (n=4), Greeks (n=3), Kalmyks (n=3), Romany ethnic group (n=2), Hispanic (n=2), Korean (n=1) and African (n=1). Most of the transgender people grow up in full families with two parents (71.6%, n=800), 28% (n=313) grow up with one parent and 0.4% (n=5) were orphans. Some gender incongruent patients entered into official marriage (13.1%, n=146). Significantly higher rate was observed in MtF group 23.1% (n=119) vs FtM 4.3% (n=27). The number of marriages increased with the later application for GAMC. In total 115 children were born in the group. In the MtF group 8.8% people have children (from 1 to 3) and in the FtM group 3.5% gave birth (from 1 to 2). Sexual experience (any type of sexual practice) has got 95.6% of the patients: 96.0% MtF (n=494), 94.6% FtM (n=595). The first experience occurred at the age of 17±3,1 (12-23 years), both for MtF and FtM. Concerning sexual orientation: 47.8% MtF and 76.0% FtM was heterosexual; 14.1% MtF and 4.6% FtM was homosexual; 34.7% MtF and 19% FtM was bisexual. Also 0.4% FtM identified themselves as asexual.

Somatic and mental health

Depression or anamnesis of depression was the most common diagnosis in the study group (82.4%, n=920). But at the moment of application for GAMC in 75.2% cases (n=840) gender incongruent patients were mentally healthy: 69.5% of the MtF group (n=358), 76.5% of the FtM group (n=482). Additional psychiatric diagnoses (comorbid pathology) had 26.1% (n=291). Auto-aggressive behavior (represented by self-harm such as cuts and burns, risky sexual behavior, alcoholism and toxic substances abuse, avoidance of periodic medical examinations) was registered in 38.5% of transgender

patients (n=420). In total group 12.6% of patients have had suicide attempts in anamnesis (n=140); 35.5% had suicidal thoughts in the past (n=396), 28.7% reported actual suicidal thoughts (n=320). Among all patients with suicidal experience, 50.0% were MtF and 50% FtM. When analyzed within groups, the prevalence of suicidal activity in the MtF population was higher: 15.2% (n=76) vs. 10.6% in the FtM group (n=64), p=0.001. As far as somatic pathology is concern, 24.1% (n=269) of transgender individuals were overweight and 7.1% had obesity (n=79). Average BMI for MtF was 20.6± kg/m2 and for FtM was 23.4±kg/m2 (p=0.009), fig. 3. The most common somatic diagnoses, among total group, were: vitamin D deficiency (54.1%), iron-deficiency anemia (15.6%), arterial hypertension (12.7%), hypothyroidism (11.7%), hyperprolactinemia (7.0%), reproductive system disorder (dysmenorrhea and amenorrhea, polycystic ovaries, inflammatory process, hypogonadism) in FtM group (19%). As for smoking anamnesis, 60,8% of MtF and 72,7% of FtM were current smokers.

Affirmative hormonal therapy without prescription

Among all patients 599 people, or 53.6%, were already taking AHT. The duration of therapy ranged from 1 month to 20 years, mainly from 2 to 5 years. Feminizing therapy was initiated in 396 MtF individuals (76.7% of all trans women). Masculinization therapy was started in 204 FtM patients (32.3% of all trans men). Duration of AHT before the application for medical care (to our center) for MtF was 2.2 years, and for FtM 0.7 years. Among transgender people who have already started taking AHT, only 8.6% consulted with an endocrinologist. And in 91.4% cases the treatment was chosen according to “friends advice” or on the basis of Internet information presented on foreign and Russian websites. Only 15.4% of patients noted that before starting treatment on their own initiative, they got acquainted with the "International Medical Standards for Care transgender people”,⁸ articles in PubMed, international recommendations or other scientific sources.

Level of education and professional activity

People who applied for GAMC have different levels of education, with prevalence of University degree (42.3%, n=474) and secondary professional education (college equivalent) (29.1% n=327), 13.7% (n=155) of patients were university students, 13.0% (n=147) were secondary professional education institutions students, 1% (n=12) went to school.

Among all transgender people 89.6% were employed (n=1000), 2.1% didn't work (n=24). 8.3% were involved in study, 23.3% (n=93) combined studying and working. Professional areas are presented in Figure 4.

Compared with Europe, total transgender population in Russia is really numerous and heterogeneous. Unlike in European research data,²⁵ we see almost equal numbers of FtM and MtF in our statistics, which may be explained by strong positions of the patriarchal paradigm in Russian society, where the male gender role gives some more social privileges and opportunities. This hypothesis is supported by the fact that in countries where women's social freedom is significantly limited (for example in Islamic countries) we see significant predominance of FtM over MtF.²⁶

In typical cases GD has its onset in prepubertal and early pubertal age. Some years later people get information about "gender incongruence". It took some more years to accept themselves as a "transgender" and some more years to express themselves in desired gender. The decision to undergo GAP and change sex-coding in the documents was never spontaneous. We see that the older patients, who grow up and live in an information deficit usually have long periods of trying to live "normally", i.e., according to passport data, that never brought happiness or relief, reducing their quality of life and provoking psychological problems. In general, Russian patients who applied for GAMC was under 30 years. This picture correlates with European statistics. Though we rarely see children and adolescents, while the latest data from USA and Europe tells us about increase in the application in this group.⁸ Among the MtF group, in comparison with FtM, we observe older acceptance age, the same age of receiving information about GI, later start of the AHT and later application for GAMC. This is also congruent to the data from other countries (Spain, Italy, Brazil).²⁷⁻³⁰ For trans women to look harmoniously with their gender usually took a lot more efforts and time than for trans men, and in our opinion this fact result in later transition.

Majority of MtF patients had been already taking female hormones on their own initiative at the moment of the first application for GAMC. This pattern is explained by the fact that female hormones pills and anti-androgens can be easily purchased in any pharmacy, while to buy injectable testosterone you need a prescription.

People with GI can be characterized by a high level of education, according to our data; almost all of them were employed at the moment of application.

This may not reflect the general situation, as the data were collected in a private clinic and our patients used to have medium or high income.

The area of professional interest shows a broad spectrum and doesn't differ from similar statistics on cis-gender people of comparable age, that tells us about integration into society, sufficient socialization and social independence of gender incongruent persons.

Our study has a significant limitation, because the sample involved only a small part of the community, mainly from Moscow. Furthermore they have enough financial support and socialization level to start GAP.

There is considerable scope for further research of the trans-population both medical and sociological. Further study is essential for understanding the community specificities to improve medical care quality and accessibility for the GI population.

In conclusion, i) The Russian transgender population is a big, ethnically and culturally heterogeneous group that has little visibility. MtF persons are more vulnerable than FtM; ii) We see a significant increase in the number of applications in order to receive GAMC (+123.2% from 2014 to 2021); iii) Among all transgender individuals 44.01% were trans female and 55.99% were trans masculine, 1.2% identified themselves as non-binary persons; iv) The average age for GAMC application in MtF was 26 years and in FtM was 23 years. Majority of patients have experienced GI and GD since pre-pubertal or early pubertal age. Information about GI was received at a median 14 years. Age of acceptance oneself as a "transgender" was 17.0, earlier in FtM (16.0), later in MtF (18.0). The first steps to bring one's appearance in accordance with desired gender was made at a median of 20 years (22 for MtF, 19 for FtM); v) Depression was diagnosed in 82.4% cases, 12.6% of patients have suicide attempts; vi) In 53.6% patients were already taking AHT (76.7% MtF, 32.3% FtM) predominantly without prescription and without adequate medical control; vii) Further research is essential for the formation of professional attitude in the medical environment and local standards development.

List of acronyms

AHT – affirmative hormonal therapy
FtM – female-to-male (trans-masculine)
GAP – gender affirming procedures
GAMC – gender affirming medical care
GD – gender dysphoria
GI – gender incongruence
MtF – mate-to-female (trans-feminine)
SAS – sex-affirmative-surgery

Contributions of Authors

SNV, study design development, data collection, analysis, and interpretation; MEV, statistical data processing, writing the article; KSA, data collection, statistical processing, editing of the article. All authors have read and approved the final edited typescript.

Acknowledgments

The Authors thank colleagues of the Department of Neurosciences, University of Padova, Italy and of the A&C M-C Foundation for Translational Myology, Padova, Italy for discussions and critical readings.

Funding

The study received no special funding.

Conflict of Interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

Ethical Publication Statement

We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this report is consistent with those guidelines.

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Submission: April 26, 2023

Revision received: May 29, 2023

Accepted for publication: May 29, 2023