

Socio-demographic Characteristics of Transsexuals Referred to the Forensic Medicine Center in Southwest of Iran

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Abstract

Background: Transsexualism or gender identity disorder affects person's gender identity. **Aim:** This study was to describe socio-demographic characteristics in a population of transsexuals. **Materials and Methods:** We studied 44 persons of both sexes with diagnostic criteria of gender identity disorder who were referred to the Legal Medicine Organization of Fars, southwest of Iran during the time period 2005-2010. The general practitioners examined the following socio-demographic characteristics and then recorded them in a semi-structured questionnaire, which was developed by the Forensic Medicine Center in Shiraz: Sex, age, educational level, place of residence, marital status, duration of treatment, and employment status. **Results:** A total of 44 persons (18 (40.9%) males versus 26 (59.1%) females) were referred for sex change during the study period. The sex ratio was 0.69:1. The mean age was 27.6 ± 2.9 years. The majority of patients were diploma and higher diploma education (77.3%), lived in urban areas (81.8%), were employed (56.9%), were single (93.1%), and were under six months of hormonal treatment (61.4%). **Conclusions:** It seems that social acceptance is lower for male to female transsexuals, since these patients have lower employment and literacy statuses. Further studies should be designed to evaluate and deeper analyze more socio-demographic, clinical, and psychiatric variables about transsexual patients.

Keywords: Fars, Forensic medicine, Gender identity disorder, Iran, Population characteristics, Socio-demographic characteristics, Transsexualism

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Introduction

Transsexualism (International Classification of Diseases (ICD)-10) or gender identity disorder (GID) (Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV) affects person's gender identity which is consistent with the bodily sex characteristics^[1,2] so that the individual has strong and consistent desire to live and be accepted as a member of the opposite sex.^[3] Estimating the prevalence of GID is extremely difficult concerning the lack of

adequate studies in this field.^[4] There is a classic report for the prevalence of GID based on the 1994 DSM-IV study,^[5] which calculated it about 1:30,000 males and 1:100,000 females. However, a 2009 review by Zucker *et al.*,^[6] concluded that the prevalence may be 3 to 8 folds higher than the DSM-IV report. This prevalence in a Thai study^[7] was estimated to be 1:180 males and 1:3,000 females.

A comprehensive review of the literatures from Europe, USA, and other countries^[4,8,9] reveals that (A) GID is more prevalent in male to female transsexuals (MTFs) than in female to male transsexuals (FTMs); (B) the prevalence of transsexuals have been increased during the last few decades; and (C) epidemiologic studies are needed to detect the hidden transsexuals. To our knowledge, there are very few investigations, which consider socio-demographic and clinical characteristics in transsexual patients. Duisin *et al.*,^[10] from Serbia reported

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that mainly males refer for psychiatric consultation in younger age and most of them have high school literacy status, living in urban areas, and equally employed and unemployed. Gómez-Gil and coworkers from Spain^[11] found that the basic characteristics of transsexuals from Spain were similar to those of other European countries, except for the higher proportion of transsexuals who reported same sex sexual orientation.

The medical practice of surgical and hormonal sex reassignment returns back to the early 1970s in Iran.^[12] The law that allowed transsexual patients to undergo sex reassignment surgery was passed in the mid-1980s.^[13] However, this is the first research in Iran about socio-demographic characteristics of transsexuals. The sex ratio of GID was calculated near 1:1 in Iran in a recent study.^[9] Data from the literature indicates that the male/female ratio in the transsexual population in most clinical centers is 3-5:1.^[11] Iranian legal system does not forbid sexual transition.^[14] To obtain legal permission for sex-reassignment surgery and new identity document, candidates must have medical certificate of GID which attests that the operation is necessary.^[15] Accordingly, there are clinics in which psychiatrists and clinical psychologists are authorized to provide a clinical assessment of the patients requesting a sex reassignment surgery.^[15] Transsexuals suffering from GID do face with some problems both in their private and public lives in our environment.^[12,14] For example, being sexually different is not accepted easily in Iranian culture and families of transsexuals have a hard time dealing with them mainly due to their fear of losing reputation.^[16] Also, transsexuals are in risk of developing serious mental health disorders.^[16]

In the present paper, we describe and analyze some of socio-demographic characteristics collected by the Forensic Medicine Center in Shiraz in a population of transsexuals.

Materials and Methods

The sample of this cross-sectional study consisted of 44 persons of both males and females who were referred to the Forensic Medicine Center in Shiraz, southwest of Iran, for sex reassignment surgery during the time period 2005 to 2010. One psychiatrist together with a psychologist made the final diagnosis of GID, based on diagnostic criteria of GID according to DSM-IV (1994) and ICD-10 (1988) classifications, in the Legal Medicine Organization (LMO) of Fars Psychiatric Department. The study was approved by the Iranian LMO ethical review board and was explained to the patients who then gave their written informed consent. Helsinki's moral principles were considered for keeping human identity, prestige, and medical secrets.

Then the general practitioners examined the following socio-demographic characteristics and then recorded them in a semi-structured questionnaire which was developed by the LMO of Fars: Sex, age, educational level, place of residence, marital status, duration of treatment, and employment status. In terms of educational level, under-diploma refers to illiterate, elementary, and lower-secondary education. Also, diploma means upper-secondary education (14-17 years or older) and above diploma means Technical/Vocational School (17-19 years or older).

Statistical analysis

Descriptive analyses were used to describe the participants' details. Data were analyzed using Statistical Product and Service Solutions (SPSS) 16. Quantitative variables were presented by mean as well as standard error of mean and qualitative variables were presented by frequencies tables (frequency and percentages). Paired *t*-tests and Chi-square were used to evaluate for statistical significance. The significance level of 0.05 was as difference between variables.

Results

A total of 44 persons with GID (18 (40.9%) MTFs versus 26 (59.1%) FTMs) were referred to the Forensic Medicine Center in Shiraz for sex change during the study period. The mean age of patients was 27.6 ± 2.9 years. There was not statistically significant difference between mean age of MTFs and FTMs (27.7 ± 2.9 and 27.3 ± 2.5 , respectively $P = 0.260$). Table 1 represents the distribution of sociodemographic and clinical characteristics of the study population.

In terms of educational level, the majority of the patients (16, 36.3%) were diploma, while the minority of the patients was above-diploma (8, 18.3%). According to the place of residence, 36 patients (81.8%) lived in urban areas, while eight patients (18.2%) lived in rural areas. The patient's occupational status was as follows: 25 (56.9%) persons were employed and 19 (43.1%) persons were unemployed.

In our study, the majority of patients (41, 93.1%) were single and only three patients (6.9%) were married. Of total 44 patients in our study, 27 patients (61.4%) were under six months of their GID treatment.

Discussion

Our MTF/FTM ratio (0.69:1) was similar to that found in recent descriptive cross-sectional study of 281 GID subjects in Tehran (0.96:1).^[9] The sex ratio of about 1:1 in Iran may represent that fewer MTF GID patients seek help in Iran than other countries. Data from

Table 1: Distribution of socio-demographic and clinical characteristics in persons who were referred to LMO of Fars for sex change during the time period 2005-2010

Variable	MTF (%)	FTM (%)	Total (%)
Level of education			
Under-diploma ^a	6 (33.3)	4 (15.3)	10 (22.7)
Diploma ^b	6 (33.3)	10 (38.4)	16 (36.3)
Above-diploma ^c	4 (22.2)	4 (15.3)	8 (18.3)
University (Bachelor of Science/Master of science/Doctorate)	2 (11.1)	8 (30.7)	10 (22.7)
Total	18 (100)	26 (100)	44 (100)
Place of residence			
Urban areas	17 (94.5)	19 (73.1)	36 (81.8)
Rural areas	1 (5.5)	7 (26.9)	8 (18.2)
Total	18 (100)	26 (100)	44 (100)
Occupational status			
Employed	8 (44.5)	17 (65.3)	25 (56.9)
Unemployed	10 (55.5)	9 (34.6)	19 (43.1)
Total	18 (100)	26 (100)	44 (100)
Marital status			
Married	1 (5.5)	2 (7.7)	3 (6.9)
Single	17 (94.4)	24 (92.3)	41 (93.1)
Total	18 (100)	26 (100)	44 (100)
Duration of psychotherapy for GID			
Under six months	10 (58.8)	17 (62.1)	27 (61.4)
Between 6-12 months	4 (23.5)	7 (25.9)	11 (25.0)
between 12-18 months	3 (17.7)	3 (12)	6 (13.6)
Total	17 (100)	27 (100)	44 (100)

^aIlliterate, elementary and lower-secondary education., ^bUpper-secondary education, ^cTechnical/Vocational School

Canada (1.7:1),^[17] Germany (1.2:1),^[18] Norway (1.1:1),^[19] and Sweden (1.8:1)^[20] show a slight predominance in the male to female group. Data from Belgium (2.4:1),^[21] The Netherlands (2.5:1),^[22] and Spain (2.2:1)^[11] show a moderate predominance in the male to female group, while data from Australia (6.1:1)^[23] and Japan (5.5:1)^[24] show a substantial predominance. We emphasize that this sex ratio is related exclusively to the group of patients examined in this research and cannot be generalized.

In our study, the mean age of patients was in harmony with the study of Gomez-Gil, *et al.*, in Spain.^[11] However, our results are not consistent with some earlier studies.^[9,25] The mean age was older than those reported previously from Iran^[9] and Singapore^[25] in which the mean age was about 24 years. On the other hand, the mean age was younger than those reported from Belgium^[21] with a mean age of about 30 years.

As reported by previous medico-legal studies concerning GID cases,^[11,26] our findings confirm that females-to-males are younger when they apply for sex reassignment

treatment than males-to-females. In terms of literacy status, more than three-quarters of our patients were diploma and higher diploma education. This proportion was about 1.7 times lower in the study by Gomez-Gil *et al.*, from Spain.^[11] Previously, Duisin *et al.*, from Serbia^[10] found that two-thirds of transsexual patients have completed high school. De Cuypere *et al.*, from Belgium^[21] found that most transsexuals had reached last years of secondary school (65%), while 19% had a degree from a university or college or higher education. In another study from Poland, transsexuals reached secondary school in general.^[27] In the present study, the educational degrees of FTM patients were higher than MTFs.

At the time of investigation, unequal numbers of patients were employed or unemployed, a finding similar to data from Spain^[11] and Turkey.^[28] In contrast, data from Serbia^[10] show an equal number of patients had a permanent job and was unemployed. FTM patients had better employment status than MTFs. In previous studies,^[11] FTMs had a significantly higher literacy status and to be employed in more stable jobs than the MF group. The unstable and low employment status in our study population, especially in the MTF group, might be due to the social exclusion that these patients suffer.

In our study, both FTM and MTF patients were predominately single. We did not find a contrary study to this finding. Several studies have found that both groups lived predominately with their parents.^[11,21] They explain the high proportion of patients still living with their parents as certain cultural features such as delayed independence of children, barriers to employment and low-level of information and knowledge in the family.

The majority of the patients came from the urban areas. This finding could be explained partly as: (a) higher tolerance and acceptance of difference, (b) easier access to health care services, and (c) better possibilities to get information from media in urban areas.

Of total 44 patients who were referred to us, the majority of them received fewer than six months of psychotherapy for GID. None of these patients accepted their bodily sex and practiced doing activities appropriate to this sex at the end of this six-month period. Khodayarifard *et al.*, from Iran^[26] investigated the effectiveness of cognitive-behavioral therapy with emphasis on spiritualism in treatment of a 20-year-old transsexual male. They did not prescribe any hormone during their study and approved the effectiveness of this method in treatment of transsexualism after 30 therapeutic sessions (once a week). At the end of this period, their patient accepted his bodily sex and professed that he did not have any more tendency for transsexuality even after a one-year period of following-up.

In conclusion, it seems that social acceptance is lower for MTF transsexuals, since these patients have lower employment and literacy statuses. Therefore, further studies should be designed to evaluate and deeper analyze more socio-demographic, clinical, and psychiatric variables about transsexual patients.

Limitations of the study

This research had some limitations. The first limitation was the non-compliance of participants in completing psychological tests. Also, lack of availability to subjects due to changing the place of living was one of limitations. Finally, the sample was not representative of all transsexuals in our environment because an unknown proportion of these patients do not undergo professional workup.

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