

## The frequency of personality disorders in patients with gender identity disorder

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Received: 8 July 2013

Accepted: 15 March 2014

Published: 10 September 2014

### Abstract

**Background:** Co-morbid psychiatric disorders affect prognosis, psychosocial adjustment and post-surgery satisfaction in patients with gender identity disorder. In this paper, we assessed the frequency of personality disorders in Iranian GID patients.

**Methods:** Seventy- three patients requesting sex reassignment surgery (SRS) were recruited for this cross-sectional study. Of the participants, 57.5% were biologically male and 42.5% were biologically female. They were assessed through the Millon Clinical Multiaxial Inventory II (MCMI- II).

**Results:** The frequency of personality disorders was 81.4%. The most frequent personality disorder was narcissistic personality disorder (57.1%) and the least was borderline personality disorder. The average number of diagnoses was 3.00 per patient.

**Conclusion:** The findings of this study revealed that the prevalence of personality disorders was higher among the participants, and the most frequent personality disorder was narcissistic personality disorder (57.1%), and borderline personality disorder was less common among the studied patients.

**Keywords:** Personality disorder, Gender identity disorder.

*Cite this article as:* Mazaheri Meybodi A, Hajebi A, Ghanbari Jolfaei A. The frequency of personality disorders in patients with gender identity disorder. *Med J Islam Repub Iran* 2014 (10 September). Vol. 28:90.

### Introduction

Strong and stable preference to live in form of the other gender is the clinical symptom of Gender Identity Disorders (GIDs) (1,2). Based on the revised text of the 4<sup>th</sup> edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), this disorder causes continuous dissatisfaction of the gender or feeling of inappropriateness of the current sexual role. GID affects social, occupational and other essential functions (3). The extent of prevalence of GID is not similar in different countries (4,5), and perhaps it is more widespread than what is presumed (6,7). The prevalence of GID is estimated 1:10,000 to 1:20,000 in men and 1:30,000 to 1:50,000 in women (8) and the sexual

ratio (biological males to biological females) is between 3 and 5 to 1 (1). However, this ratio seems to be close to 1 to 1 in our country (9).

In a cross-sectional study, the prevalence of MTF and FTM GID was calculated as 1:145,000 and 1:136,000, respectively, and the total prevalence as 1:141,000. The sex ratio of MTF to FTM GID was 0.96:1(12).

There are some researches on psychiatric co-morbidities with GID. However, the findings are scattered due to the differences in the number of patients, methods of sample recruitment and instruments. Studying psychiatric comorbidities in GID patients is important in several aspects:

Understanding these disorders contributes to clarification of GID nosology. Some

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scholars classified GID as a part of borderline personality disorder (BPD) (10 to 13). For example, Murray has suggested that GID in men is a presentation of character structure matched with Kernberg's criteria for borderline personality organization. Transsexualism is even considered as a subset of borderline personality disorder (10). Seikowski et al. opposed to the correlation between GID and borderline personality disorder, regarding GID as a separate disorder, which may sometimes show borderline personality disorder symptoms (14).

Another important aspect of studying comorbid psychiatric disorders in GID is helping the clinicians to make definite and accurate diagnosis. GID patients usually look for hormone-based treatment or sex reassignment surgery (SRS), but in many cases the patients asking for SRS have psychiatric disorders other than GID such as personality disorders which should be considered before surgery (1,9).

Furthermore, co-morbid psychiatric disorders affect prognosis, psychosocial adjustment and post-surgery satisfaction in GID patients (15,16).

Although social factors and cultural background affect GID, findings in one country could not be generalized to other countries without cautious considerations.

Researches on GID subjects in countries other than Western countries could be helpful in identifying the similarities and differences of features and comorbidities of GID between different nationalities with different cultural, political and religious orientations as these factors may affect attitudes towards sex (1-5). Researches of this kind are small in number; therefore, this study was designed to assess the frequency of personality disorders in Iranian GID patients

## Methods

### Subjects

Eighty- three patients with a primary Axis I diagnosis of GID according to the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition

(DSM-IV), participated in this study. The patients were admitted to the outpatient sex clinic in Tehran Institute of Psychiatry, Tehran, Iran between October 2006 and March 2007.

The patients were evaluated by two senior psychiatrists of Iran University of Medical Sciences faculty who had special interest in this area. The participants were recruited after an unstructured psychiatric interview in order to approve the diagnosis of GID and exclude the current mood disorders and psychotic disorders to decrease the effect of axis I disorders on the diagnosis of personality disorders. Seven patients were excluded as they met the criteria of current mood disorders.

This study was approved by the Review Board of the Psychiatry Department of Iran University of Medical Sciences. All the participants signed a written informed consent after they were provided with a complete description of the study. It is noteworthy to mention that the test results of three patients were excluded due to low validity scales scores of the MCMI II.

### Instruments

In this study, the Millon Clinical Multiaxial Inventory II (MCMI- II) was used to assess comorbid personality disorders.

The MCMI II is an inventory with 175 items designed to measure personality disorders (17). It provides measures of eight basic personality patterns, three more severe pathological personality styles and nine clinical personality disorders. In this inventory, a score higher than 74 indicates the presence of personality disorder.

The reliability and validity of the MCMI II is generally sound. Based on the Millon studies, the internal consistency of the test is high. The average of 22 clinical scales is 0.89, and the range is from 0.81 to 0.95 (18; 19). The validity and reliability of the Persian version of the MCMI II have been approved in Iran (20).

### Results

Seventy (95.89%) patients were candi-

Table 1. The Frequency of Personality Disorders in Patients

Personality disorder	Total (70)		MTF-type (39)		FTM-TYPE (31)		X <sup>2</sup>	P
	N	%	N	%	N	%		
Narcissistic	40	57.1	25	64.1	15	48.4	1.742	0.187
Obsessive-compulsive	27	38.6	13	33.3	14	45.2	1.020	0.313
Masochistic-sadistic	24	34.3	11	28.2	13	41.9	1.445	0.229
Paranoid	18	25.7	11	28.2	7	22.6	0.286	0.593
Antisocial	16	22.9	8	20.5	8	25.8	0.274	0.600
Histrionic	12	17.1	4	10.3	8	25.8	2.940	0.086
Schizoid	11	15.7	11	28.2	-	-	10.374	0.001
Schizotypal	11	15.7	11	28.2	-	-	10.374	0.001
Avoidant	11	15.7	11	28.2	-	-	10.374	0.001
Passive-aggressive	9	12.9	8	20.5	1	2.3	4.607	0.032
Self-defeating	6	8.6	5	12.8	1	2.3	2.029	0.154
Dependent	6	8.6	6	15.4	-	-	5.216	0.22
Borderline	1	1.4	1	2.6	-	-	0.806	1.000
Personality disorder (total)	57	81.4	35	89.7	22	71	4.026	0.045

dates for sex reassignment, and they were referred to pass the legal process of surgical sex reassignment. Forty-two (57.5%) patients were the MTF-type and 31 (42.5%) were the FTM-type. The Mean±SD age of the patients was 25.3±6.4 years. Due to Iran's regulations, same gender marriage is not allowed and transsexuals cannot get married before sex reassignment, so all the examined patients were single (95.7%) or divorced (4.3%).

The most frequent personality disorder was narcissistic personality disorder (57.1%) and the least frequent was borderline personality disorder; only one sample exhibited borderline personality disorder (1.4%) (Table 1).

The average number of diagnoses was 3.00 per client (Table 2).

Schizoid, schizotypal, and avoidant personality disorders with  $p < 0.001$  and passive-aggressive and dependent personality disorders with  $p < 0.05$  were more prevalent in biological males than biological females ( $p > 0.01$ ).

Hormone replacement therapy had been

Table 2. Number of Personality Disorders in Patients

Number of Co-Occurring Personality Disorders	Frequency	%
1	10	31.4
2	12	17.1
3	10	31.4
4	8	4.11
5	9	9.12
6	5	1.7
7	3	3.4

administered for the majority of the patients (92.9%) before referral to Teheran Institute of Psychiatry. Of the participants, 5.7% had a history of self-harm (including cutting and burning). There was not a significant difference in the frequency of personality disorders based on marital status, receiving hormone therapy and history of self-harm.

### Discussion

Personality disorders were common in this study (57 cases, 81.4%). The rate of personality disorders were 41.9% in Hep et al. study (21), and it was 19.8% in Haroldson and Dahal study (22). It was found that males had more axis II disorders, and this finding is consistent with that of previous studies (8,15). In our research, the most common type of personality disorder was narcissistic personality disorder, which was observed in more than half of the patients (57.1%). In the study of Hep et al. as well as that of Haroldson and Dahal, cluster B personality disorders were more common than the other two clusters. Applying Structured Clinical Interview for DSM-IV axis II disorders (SCID-II), Hep et al. examined GID patients in Switzerland (20). The results revealed a comorbidity of personality disorders in 41.9% of the patients (13 patients); and the most frequent personality disorders were cluster B (7 patients) followed by cluster C (6 patients): Cluster A: 16.1%, Cluster B: 22.6%, Cluster C: 19.4%, NOS PD: 6.5% (run among GID

samples). The frequency of axis II disorders did not correlate with the patients' gender, age and state of treatment.

In 2004 in Sweden, Haraldsen and Dahl, applying SCID-II, found the following results in 41.8 % of the patients (17 patients) (22):

Cluster A: 5 patients (5.8%)

Cluster B: 7 patients (8.1%)

Cluster C: 5 patients (5.8%)

NOS: 0 (run among mixed pre and post SRS samples).

Using clinical interview, based on DSM-III, Levin and Bodlund reported personality disorders in 66% of the surgery candidates and in 37% of GID samples (24,25).

Using SCID-II Bodlund et al. found the prevalence of comorbidity of personality disorders as follows:

Cluster B: 22.2%,

Cluster C: 11.1%,

Cluster A: N= 0 (25)

Mededdu reported the presence of personality disorders in 52% of the surgery candidates and stated that narcissistic personality disorder was the commonest disorder.

It can be concluded that personality disorders are more widespread among surgery candidates than the general GID samples. Furthermore, the higher rates of narcissistic personality disorder in these patients (surgery candidates) may be due to the fact that they are more preoccupied with their own appearance and beauty and need more praise by others.

Moreover, it is not clear why personality disorders are common among these patients; it might be that each of these two disorders makes the patient vulnerable to the other. Hoopes and Meyer found that GID patients try hard to adjust to their biological gender and sexual role, but the adjustment costs their personality. Besides, the hard circumstances, in which most GID patients live may predispose them to other psychiatric disorders.

On the other hand, shared symptoms and same age of emergence may result in greater number of diagnosis of personality dis-

orders particularly cluster B in GID patients, or perhaps the patients are inclined to be affected by both disorders due to simultaneous common etiologies like a possible genetic connection.

Therefore, various personality disorders should be examined in each individual with GID (22). In GID patients, the comorbidity of personality disorder was accompanied with poor prognosis (15,16).

In some studies, borderline personality disorder is acknowledged to be the most common personality disorder co-morbidity in GID patients (1,2). Murray has suggested that transsexualism is a presentation of borderline personality organization and even a subgroup of borderline personality disorder. Murray compared transsexual males, BPD males and homosexual males with controls. Compared to controls, transsexual and BPD patients had more aggression, poorer reality testing and lower levels of object relations, but Rorschach test results were similar in both groups (10). Seikowski and colleges, however, found no sign of borderline personality disorder or other personality disorders in 80% of 164 transsexual patients, applying Beck Depression Scale (BDI), Freiburg Personality Inventory (FPI) and Questionnaire for Assessment of One's Own Body (FBek). In addition, they believed that the diagnosis of BPD in other cases could be contributed by depression, low composure, poor socialization and low self-confidence. Therefore, they did not approve the correlation between GID and borderline personality disorder and considered the GID as a distinct disorder whose symptoms might sometimes overlap with borderline personality traits (14). In this study, the elevation of the borderline personality scores was found only in one case (1.4%). This implies the scarcity of this disorder in GID patients. However, the diagnosis of borderline personality pattern is also based on many combinations of personality scores including 2, 4, 5 and 8 (avoidant, histrionic, narcissistic, antisocial, and self-defeating). Therefore, despite the fact that borderline personality disorder

was only identified in one case, borderline personality pattern was observed in most of the cases, which is consistent with the result of some studies (26-28).

The difference between the results of the mentioned studies may originate from different settings, instruments, number of patients and methods of sampling.

The validity and reliability of the MCMI-II in GID patients were not evaluated; therefore, the findings should be interpreted with caution. There was not a significant difference in the frequency of personality disorders based on marital status, hormone therapy or history of self-harm, and this may be due to the small number of divorced patients, patients who did not receive hormone therapy and patients with history of self-harm. In our study, there was no normal control and this is considered one of the limitations of this study.

This study also faced other limitations. Patients in our research may be imperfect samples of all GID patients. In Iran, GID patients are guided to Tehran Institute of Psychiatry when they request a new official identity or sex reassignment surgery (SRS). Consequently, samples in this study can be considered a sample of patients who have more psychiatric problems or more intense conflicts with their conceived identity. Furthermore, although according to some studies there is a fair clinical concordance between the MCMI II and DSM-III-R criteria, some other studies showed that the MCMI II is not congruent with Structured Clinical Interview for DSM-III-R (29-31). Therefore, it is a limitation of our study that only the MCMI II test, which is a self-report questionnaire, was applied and personality disorder was not assessed by other standard tests such as SCID-II. Conducting further studies with gold standard instruments such as SCID-II and a control group is recommended. In addition, this study was clinic-based, and a field study may also be helpful to determine the comorbidity of personality disorders in less severe cases.

## Conclusion

Personality disorders are common in patients with Gender Identity Disorder who are candidates for sex reassignment. As a result, the assessment of Personality disorders before sex reassignment surgery and offering psychological and medical intervention care, if needed, is strongly suggested. The results of this study also indicated that Borderline personality disorder is not necessarily the most comorbid personality disorder in patients with Gender Identity Disorder.

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