

Evaluation of personality disorders in patients with Gender Identity Disorder (GID): An update

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ABSTRACT

Introduction: Gender dysphoria (GD) could cause various mental illnesses, but its main cause is unclear. GD patients also suffer from different personality disorders that increase the risk of side effects among them. The present review study is aimed to investigate the most recent studies on comorbid personality disorders in patients with GD. **Materials and Methods:** Online databases were searched using related keywords for collecting any related articles. After precise reviewing the abstract of all collected articles, those with more appropriate content were included in our study. **Findings:** The prevalence rate of personality disorders in GD patients has been reported to be from 15% to 80% by different studies. In line with the data from previous studies, it was revealed that borderline personality disorder is one of the most prevalent disorders among GD patients. Available comorbid personality disorders cause a wide range of side effects on the normal function of patients. **Conclusion:** The majority of studies carried out on the comorbidity of personality disorders have revealed that the possibility of personality disorders in GD patients is high. Anyway, further studies are required to understand the exact effect of psychological care on personality disorders in these patients.

Keywords: Comorbidity, gender dysphoria, personality disorders

Introduction

Gender dysphoria (GD) is specified through the situation in which the identity of an individual's expressed gender is opposite to his/her main biological gender. GD at least lasts for half a year and could cause psycho-social dysfunctions. The definition of GD varies in children and adults with one and two specifiers for them respectively.^[1]

GD prevalence for female-to-male (FtM) and male-to-female (MtF) is estimated to be 1:30,000 to 1:200,000 and

1:10,000 to 1:45,000, respectively.^[2,3] The prevalence ratio of FtM to MtF types varies from 4:1 to 3:1.^[4]

Different studies have shown that GD patients are at higher risks of suffering from psychiatric axis I and II disorders in comparison with the general population. The most prevalent disorders such as bipolar disorder, stress response syndrome, personality disorders, substance-related disorders, and anxiety disorders are higher in this group compared with the individuals with normal situations.^[5-12] Moreover, the prevalence of psychotic disorders, dissociative disorders, and somatoform disorders in this group of patients is high.^[13-15] Some other prevalent disorders were suicidal ideation, child abuse, and neglect was high compared to normal individuals.^[16] In addition, some other similar studies have demonstrated that maladjusted behavior such as suicidal attempts, self-mutilation, emotional distress, and school refusal is prevalent in about one-third of GD patients. In

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this group of patients, the rate of suicidal attempts is reported to be 5 to 8 times higher in comparison with normal individuals.^[16-20]

However, some other similar studies showed that in GD patients, the rate of psychiatric comorbidity is low and also there were no differences between patients with GD and individuals with general situation in this regard.^[21-24] Moreover, in many cases, it has been reported that GD patients may experience subtle behavioral symptoms, psychological distress, emotional problems, and dysfunction, while they may not have psychological illness.^[24] Using different treatments such as psychotherapy, hormone replacement therapy, and sex reassignment surgery for GD patients may face destructive side effects.^[25-29] The possibility of facing with side effects is the main reason that most countries admitted the standards of care of the World Professional Association for Transgender Health (WPATH) to decrease their adverse consequences. In this regard, the countries which follow WPATH instructions, comprehensive psychiatric assessments are considered before using hormone replacement therapy and sex reassignment surgery to make decision about management of psychiatric comorbidities.^[30] Appropriate diagnosis of these psychiatric comorbidities provide the possibility of achieving a better understanding of gender identity disorder (GID).^[31]

Because of the prevalence of personality disorders and also an increase in psychological problems in GD patients in the world, prevention, recognition, and treatment of GD patients should be considered as a key factor of management of these patients. Consequently, this study is aimed to review recent related studies that are focusing mainly on personality disorders in GD patients to achieve more precise understanding of the co-occurrence of these diseases.

Methods

We conducted a comprehensive search on some of the most well-known databases such as PubMed, Medline, Embase, Scopus, Web of Science and EBSCO, PsycINFO, and Cochrane Library during the period of January 2014 to October 2020. All recorded documents were in English. For this reason, a wide range of key words were applied to collect the most related documents which include trans-sexual, transsexual, trans-sexualism, transsexualism, transvetism, gender dysphoria, gender-dysphoria, gender identity disorder, GID, transgender, personality, personality disorder, personality trait, temperament, character, comorbidity, Minnesota Multiphasic Personality Inventory (MMPI), Minnesota Multiphasic Personality Inventory, Millon Clinical Multiaxial Inventory (MCMI), Millon Clinical Multiaxial Inventory, Temperament and Character Inventory (TCI), Temperament and Character Inventory, and NEO Personality Inventory (NEO PI-R), NEO Personality Inventory. All related English studies were chosen to be studied precisely and those records with less related content or those with non-English Languages were excluded from our study.

Prevalence of personality disorders in GD patients

Several studies have reported that the rate of personality disorders in GD patients is high and may reach 80%. Meanwhile, Mazaheri *et al.* reported that GD patients who experienced stereotactic radiosurgery using the Millon Clinical Multiaxial Inventory-II (MCMI-II), the rate of personality disorders was higher than 80%. They also revealed that in the MtF group, the prevalence rate of personality disorders was significantly higher in comparison with the other groups. In addition, borderline personality disorder (BPD), paranoid, masochistic and sadistic, and obsessive-compulsive disorders were also prevalent. In a similar study by Mazaheri *et al.*^[9] [2014], it was reported that avoidant personality disorder (AVPD), histrionic personality disorder, narcissistic personality disorder, antisocial personality disorder, and self-defeating personality disorder were common in GD patients that may be due to high scores of the combination of the disease.

Another similar study reported that a Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II) was applied for GD patients and at the end, they revealed that the rate of personality disorders was nearly 70% among them. Moreover, it was reported that the rate of paranoid personality disorder (PPD) was more prevalent among FtM patients compared with the other studied group. However, BPD, AVPD, and schizoid personality disorder (ScPD) were higher in the MtF group compared to the other groups of study. Consequently, they resulted that level of anxiety or psychopathological profile is more serious among MtF patients.^[32] Two other studies reported that the rate of personality pathology in MtF patients is higher compared to the other groups.^[33,34] In another study, Deiana *et al.*^[33] [2016], it was observed that 80% of MtF and FtM patients were satisfied with the MMPI-2 test. Moreover, based on the data achieved from diagnostic exam of SCID-II, nearly 40% of GD patients suffered from at least one personality disorder, in which cluster B personality disorder was the most prevalent. In spite of the data achieved from SCID-II diagnostic exam, not any significant differences were observed in the scores of MMPI in GD patients compared to the normal individuals. Another study by Bonierbale *et al.*^[34] [2016] reported that the data achieved from MMPI-2 showed that the scores of Histrionic Personality Disorder (HPD), hypochondriasis, and PPD were higher in MtF group of GD patients.

However, in contrast with the studies mentioned above, Heylens *et al.*^[8] [2014], the prevalence of personality disorders was less than 20% that did not show any significant difference with the individuals with normal situation. As mentioned by researchers, this dissimilarity may be was due to the fact that people who suffer from personality disorders has a lower tendency to participate in such studies. In our study, in all patients three clusters of personality disorders was observed. Cluster C was the most available cluster with a rate more than 60%, cluster B was the next prevalent one with a rate less than 50%, and finally cluster A with a rate a bit more than 40%. AVPD, borderline, and ScPDs were the most common

disorders, but there was not any significant difference between the two studied groups of MtF and FtM. In the group of MtF, no significant association was observed between comorbidity of the axis II disorders and the age onset of GD. Meanwhile in the FtM group, the rate of personality disorders among those who had late onset GD was higher.^[8] Another similar study by Karia *et al.*^{[35][2016]} revealed that there was not a considerable rate of psychopathology on the MMPI-2 profiles in candidates who underwent sex reassignment surgery. Therefore, they concluded that higher rate of psychopathology may be caused as a result of the availability of suspicion among the patients and the clinicians.

Characteristics and Temperaments of Patients With GD

Recent studies have revealed interesting results regarding the characteristics and temperaments of these patients.

Miyajima *et al.*^[36] conducted a study on 159 GD patients as treatments and 343 healthy people as controls and used TCI to collect the required data. They found that FtM patients had lower novelty seeking but higher cooperativeness than MtF patients and male controls. Moreover, the group of MtF patients showed higher self-transcendence and reward dependence than the group of male controls. In line with our findings, Matsumoto *et al.*^[37] reported that most of patients with MtF were companionate, empathetic, affectionate, and more conservative and respected others' positive evaluations, receiving feedbacks, and interpersonal relationships. Such characteristics not only improve the ability to cope with social problems, but help this group of patients to better adapt with their disorder-related problems and to face their gender identity, sexual feelings, and orientation more consistently. Consequently, they showed a better attitude toward interpersonal, social, and professional performance than their male counterparts. Besides, feeling high values of self-transcendence in male patients may explain why they are more prone to psychological disorders.^[6,37]

In this study, male patients showed a combination of cooperativeness, high self-transcendence, and low reward dependence, which is relatively consistent with the findings of Mazaheri *et al.*,^[9] who reported that male patients are more prone to schizotypal and PPDs, and Bonierbale *et al.*,^[34] who reported higher scores of paranoia in MtF patients.

Another study in Turkey^[38] showed that FtM patients clearly had higher hyperthymic temperament, which is known by lifetime attributes like uninhibited behaviors, high self-confidence, grandiosity, being energetic, extraversion, and having a sense of humor. Hyperthymic temperament can generate personal traits that results in dysfunction.^[39,40] Such a characteristic is more evident in women and can cause them to select sports with high-risk and involve in masculine-characteristic activities.^[41]

Given the fact that people with hyperthymic temperament are more likely to embrace masculine roles in society, one can ask

this question that whether the presentation of hyperthymic temperament in women suffering from GD causes them to behave more masculine or if such women with strong characters would be accepted as masculine members in their society, or whether common environmental and genetic factors effect the comorbidity of such traits.

In another study, it was shown for GD adolescents had lower empathy than the control adolescents without GD.^[42]

Empathy plays an prominent role in GD individuals and its deficiency in a person may have negative effects on a variety of his/her behaviors, including self-perception ability, emotional intelligence, others' feeling perception, and the capacity of making interpersonal relationships. Low empathy in a person can cause similar symptoms to personality disorders.^[42]

Hatami^[43] conducted a study on 34 GD patients using Young Schema and Eysenck Personality questionnaires and found no difference in introversion-extroversion traits between FtM and MtF groups. He reported in this study that rejection by family and parents was more common in male patients than in females, and they experienced more severe cases of shame, loneliness, low self-confidence, and social seclusion. This lack of difference in introversion-extroversion characteristics between FtM and MtF groups may be due to more prominent role of genetic factors in these personality traits than environmental factors. Thus, although the two groups are similar in terms of introversion-extroversion traits, experience them differently.

As mentioned earlier, the results on comorbidity of character disorders in patients with GD are inconsistent in studies. One of the possible reasons for these inconsistencies among the results is methodological differences among the studies. In addition, another reason may be due to different sample sizes and sampling methods used in the studies. In some studies on personality disorders, the study samples were only selected from patients who were to undergo surgery. The generalization of the results obtained for such a sample is not applicable to other patients. Unsatisfied with their biological gender, these patients are more prone to psychiatric disorders than their counterparts. Moreover, previous studies have reported different results on hormone therapy. Assuming the effectiveness of hormones in personality traits,^[44,45] ignoring to include such an effective factor can be another cause of inconsistency in the results of studies.

Some studies have ignored to exclude patients with Axis I, a disorder that overlaps some of the symptoms with personality disorders. This can interfere with the diagnosis of personality disorders in such patients. On the other hand, using different tools and methods in different studies can affect the obtained results. In some studies, for example, SCID-II has been used as study methods, while in others, MCMI or clinical interview. Some studies have employed various surveys, such as Eysenck and TCI, to evaluate character, temperament, and personality traits.

Investigating the Relationship Between Personality Disorders and Gender Dysphoria

Some researchers consider GD as a manifestation of borderline personality organization and classify it as a subgroup of BPD.^[31,46] They compared personality disorders between patients suffering from both disorders and the control group and found higher levels of aggression, self-injury, suicidal idea, suicide, reality perception impairment, boundary confusion, and object relation disorder in these patients compared with the control group.^[31,47]

On the other hand, some researchers consider GD as an independent disorder, arguing that patients with GD present with borderline secondary symptoms for some reasons. Another group of scholar associates the occurrence of personality disorder in GD patients with dysfunctional coping with psychological conditions like gender-related identity problems, based on the fact that these two types of disorders develop during adolescence.^[22] They argue that gender dissatisfaction in a person impairs defensive functions such as fantasy, splitting, and projection, and predisposes a person to personality disorders.^[48]

Previous investigations have shown the effectiveness of hormone replacement, surgery, and biological analogy to the favorable gender in reducing behavioral and emotional impairment in patients. Thus, gender dissatisfaction may be responsible for occurring emotional and behavioral problems and certain personality features in these patients.^[24]

Psychological stresses imposed by family and society has been suggested by some researchers as another cause of occurring personality disorder in such patients over various stages of their development.^[15,49] As reported in some studies, for example, MtF patients experience more psychological and personality disorders than female patients, face more rejection, judgment and discrimination from their families and society, and receive more strictures from society.^[49-51]

GID Service in Tavistock Center conducted a study in London, in which 36% of participants had a history of living at Authority Care and 43% had lost at least one parent as a child.^[52]

Another reason associated with increased risk of personality disorders is parenting style. As mentioned above, most of these patients have experienced neglect and abuse by their parents, a factor with a possible role in occurring personality disorders in such patients. Patients participating in various studies often complained about their mothers' behavior, describing them as abusive, aggressive, untrustworthy, and controlling. Compared with mothers in control groups, these mothers were less affectionate and empathetic and showed more depression and BPDs. The behavior of these mothers toward their children was such that it caused separation anxiety in the children and disrupted the secure attachment. John Bowlby and Mary Ainsworth hypothesized that children attachment style affect their

individual personality and behaviors such as social relationship, trust-making, ability to manage emotions, expectations, etc.^[53]

In addition to father rejection and losing him, psychosexual difficulties of parents are another important factor in the occurrence of the disorders and make the person more prone to personality disorder.^[52,54,55]

Overlap with GD symptoms is another possible reason for the prevalence of personality disorders in these patients. Symptoms that can overlap include anxiety, depression, low self-confidence, social isolation, poor socialization, unstable self-image, relational problems, identity confusion, and suicidal ideation.

The results of a study using MINI-plus interview tool to assess suicide in patients showed that 30% of the patients participated in the study had thought to commit suicide. It was also reported that Axis I and II disorders were not associated with suicide idea in the patients.^[8] This study shows that GD is an independent factor of such behavioral difficulties.

In another study, it was found that suicidal thought, negative feelings, and negative images were the main causes of suicide in the patients. Sometimes, shame internalization and self-punishment were observed as a psychological consequence of the stigma.^[56]

In another study using National Transgender Discrimination Survey, it was reported that family-rejected patients with GD experienced more aggressive and discriminatory behaviors and were more prone to suicide.^[57]

Given the large differences in study results, it is difficult to describe how GD is associated with personality disorders. Recently, a long-term research was performed in Germany, in which 71 patients suffering from GD were studied. The results of this study showed no significant change in personality traits after 10 to 24 (a mean of 13.8) years of follow-up. In line with these findings, we believe that these two disorders are independent. The reason for their synchronicity may be attributed to common genetic, epi-genetic, and environmental factors between the two disorders. However, more research is necessary to verify or reject this assumption.

According to Jones *et al.*,^[58-59] depression and anxiety are associated with higher risk of personality disorders in transgenders. They suggested that effective childhood policies could be helpful in reducing mental health problems.^[59] A more recent study in 2020 highlighted the special importance of mental health problems in patients with GD and revealed that recognizing stress factors and providing applicable solutions are useful strategies with positive effects on their mentality.^[60]

Conclusion

The studies on the comorbidity of GD and personality disorders have led to inconsistent results. The results of our brief review

indicated that most studies have concluded that personality disorders are common in these patients. Considering the influence of personality disorders on patients' function, it is suggested that GD patients be evaluated for their satisfaction from the treatment and the course of the disease.

We recommend that longitudinal studies with larger sample sizes and controls be performed in the future and that confounding variants like surgery and hormone therapy be controlled. A better understanding of the effect of positive psychological care on personality disorders in transgender individuals requires further research. Moreover, it is also important to identify effective factors and practical interventions in reducing patients' personality disorders. It is hoped that future investigation can shed light on the relationship between GD and personality disorders.

Key points

- Patients with GD are more prone to develop personality disorders.
- Among the factors associated with GD are childhood trauma, self-mutilation, suicide, maladaptive defense mechanisms, and poor parenting experience.
- Satisfaction with the treatment and the course of GD may be affected by the comorbidity of personality disorders.
- It is suggested that future research examine personality disorders prior to, across, and after the treatment and exclude patients with Axis I disorder.

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Conflicts of interest

There are no conflicts of interest.

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