

# Investigating the prevalence of depression, anxiety and aggression in people suffering from Gender Dysphoria referring to Forensic Medicine in 1400, Ilam city

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## Abstract

**Introduction:** The purpose of this research is the investigation of the prevalence of depression, anxiety, and aggression in people suffering from Gender Dysphoria<sup>1</sup>, referring to Forensic Medicine in 1400 in Ilam city.

**Materials and methods:** The study was in a descriptive-analytical way; in this way, the studied sample included all patients suffering from gender dysphoria who have referred to the Forensic Medicine Department of Ilam Province for sex reassignment surgery in 1400. Psychiatric counseling was done by a psychiatrist for all these people. Beck's depression and anxiety, AGQ aggression and Spencer's A or B personality type questionnaires were used to determine the level of depression, anxiety, personality type, and aggression in these people. All collected data of these people were analyzed using t-tests, Fisher's exact test, and linear regression by stata12 software.

**Research findings:** The research findings expressed that the mean and standard error of the total depression score was  $15.2 \pm 1.5$  and the mean and standard error of the total anxiety score was  $21.4 \pm 2.1$  and among all the samples, 47.5% of the

patients had some degrees of depression and 82.5% of the samples had anxiety symptoms. The number of 11 (64.1%) B personality type and the number of 10 (45.5%) A personality type did not have depression symptoms. Also, the number of 6 (33.3%) B personality type and the number of 1 (4.6%) A personality type did not have anxiety symptoms.

**Discussion and conclusion:** The linear regression results represented that there is a significant linear relationship between personality type <sup>2</sup> scores, and aggression, and anxiety scores. In this way, the average of aggression score level increases 1.97 scores and the average of anxiety score level increases 1.64 scores per score of personality type (tendency to have A personality type) that increases. Also, a significant linear relationship was not obtained between the level of personality type scores and depression in patients suffering from gender dysphoria.

**Keywords:** depression, anxiety, aggression, gender dysphoria

## Introduction

The gender dysphoria term was used for the first time as a diagnosis in the diagnostic and statistical manual of mental disorders of fifth edition and it mentions people who have obvious distinction and difference among experienced gender, gender expression, and sex biological (fetus at birth) (1). Considering that gender dysphoria was among sexual disorders and gender identity disorders in the classification of the revised text of the fourth edition of the American psychiatric association's diagnostic and statistical booklet of mental disorders, but it was considered a separate classification in the fifth edition (2). As a human, gender identity is an important part of our personality. We use gender identity to learn that think, act, and feel in a different way. The diagnosis of gender identity disorder is recognizable using two elements: 1) acceptance of the opposite gender identity or insisting that one is from the opposite gender and 2) acceptance of the opposite gender identity should not be based desire to have the cultural privileges of the other gender (3). An obvious explanation has not still been found for gender identity disorder. In spite of the speculations of doctors, psychiatrists, and biologists, this phenomenon still remains a mystery. Stresses of pregnancy periods,

hormonal and genetic disorders, and neurological and central nervous system disorders have been mentioned as important factors in causing this disease (4).

Gender dysphoria is probably due to sexual dysfunction, which is one of the common, treatable and significantly effective problems in people's life, which is also known as one of the reasons of emotional tension (5). Generally, gender dysphoria includes dissatisfaction, contention with sex biological, and gender that has been with human since birth until a person has a clinical problem. Sex and gender have a special difference in psychology, In fact, sex has been related to the body and its biologic, and society represents a person's gender, the first step is the clothing and name of the people to create gender identity, and a person suffers from gender dysphoria when the sex and gender do not match (6). Gender identity has been a normal reality for most people and they have got along with it. They do not question their born sex and behave in its manner (7). It seems that as long as a person thinks and acts according to it; his gender identity has been determined; but sometimes some people have suffered from gender dysphoria and have a feeling of gender identity mismatch unlike sex biological<sup>3</sup>. People realize in these conditions that they have grown as male or female physically, but they cannot abandon this belief that belong to the opposite sex beyond this physical appearance, this situation is likely caused that they wear the clothes of the opposite sex or even seek surgery or take hormones to acquire the physical characteristics of the opposite sex (8). Gender dysphoria has had a relationship with the level of depression, anxiety, and aggression and is able to affect sexual function (9). According to the cultural context of our country, it is possible that people suffering from gender dysphoria should not only not to be diagnosed as patient, but their behavior is considered a type of felonious actions and besides, the social acceptance of people suffering from gender dysphoria behaviors is very difficult, this issue is an anxiety inducing process for affected people which can lead to personality and psychological problems in these people (10). One of the important causes of accompanying disorders including depression, anxiety, and aggression caused by it in these people is social pressures and blaming them because of their unexpected behaviors and living these people with guilt and suppression feeling is an important part of their personal image (11). Incompatibility of the sex biological role is able to have negative consequences, including social rejection, high probability of depression,

and anxiety caused by it in people suffering from gender dysphoria (12). Moreover, numerous these sufferers have married and some of them have children. Sex reassignment surgery has been a great prevention of anxiety and aggression in these people, which sex reassignment usually leads to divorce among this category of sufferers (13). Gender identity confusion causes bewilderment, and disturbance in the appropriate gender role and behavior of people, and following that it affects social and interpersonal relationships, which leads to incidence of deviant behaviors in gender role, anxiety, and depression (14). There is only one definitive treatment for this disorder: sex reassignment surgery. Although internal sex organs or gonads are not created in this surgery and only the appearance of the genital is changes, the mind, body, and psychological symptoms of these patients usually improve as a result of this surgery. Even putting these people on the waiting list for sex reassignment surgery can help improve their mood and mental stability (15). Defect of symbolization<sup>4</sup> ability, inability of control emotion (aggression, stress, anxiety, and depression), difficulty of expressing emotions, and the objectivity of the thinking process<sup>5</sup> have been represented in a research using the Rorschach test on 28 patients suffering from gender dysphoria (16). Considering the importance of the topic, the prevalence of depression, anxiety, and aggression in people suffering from gender dysphoria referring to forensic medicine in 1400 of Ilam city has been investigated in this research.

## Materials and methods

This has been a descriptive-analytical study in which the studied sample includes all patients suffering from gender dysphoria who have referred to the Forensic Medicine Department of Ilam Province for sex reassignment in 1400. Psychiatric counseling was performed by a psychiatrist for all these people. Beck's depression and anxiety, AGQ aggression and Spencer's A or B personality type questionnaires were used to determine the level of depression, anxiety, personality type, and aggression in these people.

**1- Beck's anxiety questionnaire:** Four options per question were scored in a quartet spectrum from 0 to 3 in Beck's questionnaire. Each of the test items has described one of the prevalent symptoms of anxiety, including

mental, physical and panic symptoms, and includes a total score in a range of 0 to 63.

**2- Beck depression questionnaire:** This test has had 21 items and questions which measure physical, behavioral, and cognitive symptoms. The questions have been 4 options which are scored from 0 to 3 that determine different degrees of depression from mild to severe. This test is suitable for people over 13 years old, and its score is from 0 to 63, and it has 21 items and 4 options from 0 to 3, like the first version.

**3- AGQ aggression questionnaire:** This questionnaire has been included in 30 items, of which 14 items measure anger factor, 8 items measure invasion <sup>6</sup> factor, and 8 other items measure malice factor. This questionnaire has been in a 4 mode Likert scale and the total score of this questionnaire is from 0 to 90.

**4- A or B personality type questionnaire:** This questionnaire was designed by Hamze Ganji (1384) and Ratos, Spencer.A (1378). The score of 13 has shown the average level in this questionnaire, and people who get scores lower than 13 are in B personality type, and people with scores higher than 13 are in A personality type. The aforementioned questionnaire has 25 questions that the reliability <sup>7</sup> of this test as a retest <sup>8</sup> has been higher than 70% in most investigations, and its validity is calculated higher than 80% by the convergent structure method. All collected data from these people were analyzed using statistical tests of t-test, Fisher's exact test, and linear regression by stata12 software.

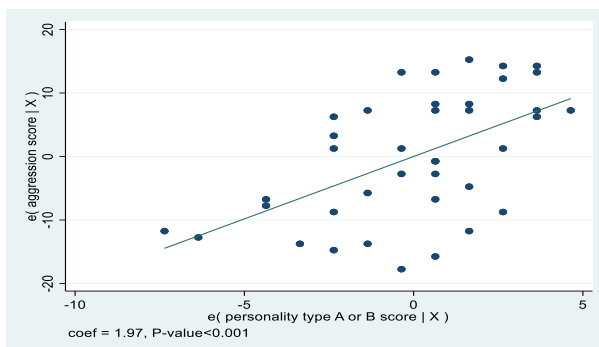
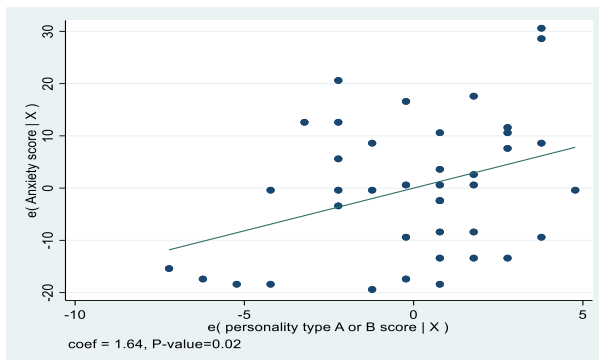
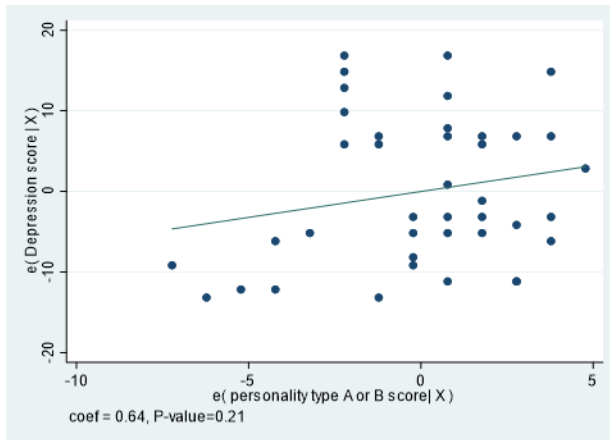
## **Emotional dyslexia questionnaire of research findings**

Based on the obtained data; 95% were women and 5% were men in the whole sample. Among the whole sample, 10 people (25%) had a college education and 25 people (75%) also had a diploma level education and below, also 55% (22 people) of the referring people had A personality type and 18 people (45%) had B personality type. The mean and standard error of the total score of depression and anxiety were  $15.2 \pm 1.5$  and  $21.4 \pm 2.1$ , respectively. 47.5% of the patients had

degrees of depression and 82.5% of the sample had anxiety symptoms among the whole sample. Number of 11 (64.1%) personality type B and number of 10 (45.5%) A personality type did not have depression symptoms. Also, number of 6 (33.3%) B personality type and number of 1 (4.6%) A personality type does not have anxiety symptoms. The average of aggression scores was higher in people with A personality type than B personality type.

**Table 1** provides a summary of the characteristics of patients suffering from gender identity disorder who were classified as A or B personality types in Ilam Province from March 2021 to March 2022.

characteristics	personality type A(N=22)	personality type B (N=18)	p-value
Age, year, mean (SE)	19.68 (0.34)	19.28 (0.42)	0.45 <sup>*</sup>
Sex (%)			0.70 <sup>**</sup>
Male	1 (50%)	1 (50%)	
Female	21(55.26%)	17 (44.74%)	
Education (%)			0.08 <sup>**</sup>
Diploma	14 (46.67%)	16 (53.33%)	
University education	8 (80%)	2 (20%)	
Depression (%)			0.45 <sup>**</sup>
No or very low	10(47.62%)	11 (52.38%)	
Mild	3 (100%)	0 (0%)	
Moderate	7 (58.33%)	5 (41.67%)	
Severe	2 (50%)	2 (50%)	
Anxiety (%)			0.06 <sup>**</sup>
No or very low	1 (14.29%)	6 (85.71%)	
Mild	6 (85.71%)	1 (14.29%)	
Moderate	7 (58.33%)	5 (41.67%)	
Severe	8 (57.14%)	6 (42.86%)	
Aggression,mean (SE)	44.55(1.95)	35.82(2.1)	0.01 <sup>*</sup>



Association between scores of personality type, depression, anxiety, and aggression in patients suffering from gender identity disorders using a linear regression model.

The t-test results showed that there is a significant difference between the two groups in terms of aggression and there was not a significant difference between the two groups in terms of age. The Fisher's test results showed that there is not a significant difference between the two groups in terms of depression symptoms. But, there is a significant borderline difference <sup>9</sup> (p=0.06) between the two groups

in terms of anxiety symptoms. So that anxiety symptoms were more in people with A personality type than in B group. The linear regression results showed that there is a significant linear relationship between scores of personality type and scores of aggression and anxiety. So that the average of aggression score level increases 1.97 scores and the average of anxiety score level increases 1.64 scores per score of personality type (tendency to have A personality type) that increases. Also, a significant linear relationship was not obtained between the level of personality type scores and depression scores in patients suffering from gender dysphoria (Figure 1).

## **Discussion**

The findings of the research indicate that the two groups have had a significant difference in terms of aggression and there is not a significant difference between the two groups in terms of age. Also, there is not a significant difference between the two groups in terms of depression symptoms. But there is a significant borderline linear relationship between the two groups in terms of anxiety symptoms and also, there is a significant linear relationship between scores of the personality type, and the aggression, and anxiety. However, a significant linear relationship was not obtained between the level of personality type scores and depression scores in patients suffering from gender dysphoria. In a study by Vermilen (2005) using the Rorschach test on 28 patients suffering from gender dysphoria, it has represented defect of symbolization ability, inability of control emotion (aggression, stress, anxiety, and depression), difficulty of expressing emotions and the objectivity of the thinking process<sup>10</sup>. Generally, it has been determined that people suffering from gender dysphoria are facing a high prevalence of psychiatric disorders and psychopathology.

Previous studies in the field of sexual minority stress have indicated that gender dysphoria can be assigned as a stressful factor (17). Some specialists declared that the presence of psychological disorders, including aggression, anxiety, and stress, is not necessary to diagnose gender dysphoria, whereas some others have propounded this question why diagnosis is necessary even in the absence of these disorders. DeVries et al. (2011) reported anxiety disorders in 21%, mood disorders



<sup>11</sup> in 12.4%, and disruptive disorders in 11.4% by studying 105 adolescents suffering from gender dysphoria (18). The results of DeCeli's (1985) study on the referrals to gender identity treatment centers indicated that children suffering from gender identity disorder have anxiety disorders, worry, depression, and emotional and behavioral problems. In addition to learning problems, some children have been rejected at school and many of them have committed suicide at puberty (19).

According to Dixon et al. (1984), there were suicidal tendencies, mental illnesses, amputation, addiction, prostitution<sup>12</sup>, and criminal history among 479 male volunteers for sex reassignment. Tusi reported in 1977 that more than 50% of these cases were prostitution. Hing et al. performed a study on prostitution in patients suffering from gender identity disorder, which indicated that prostitution has occurred in 9.16% of patients. It was determined as a result of Hing et al.'s research that 9.16% of patients suffering from gender identity disorder had experience of prostitution. Besides, Tusi reported that more than 50% of these patients were engaged in prostitution in 1977 (20). A longitudinal study of the SCL-90 7 test which was performed by Cooper et al. (1986-2001) on 60 patients suffering from gender identity disorder showed that these people had high scores in depression, anxiety, paranoia, and somatoform disorder <sup>13</sup> scales (21). The prevalence of psychological injuries in 55 patients suffering from gender identity disorder was reported by Asgari et al. (2016) as follows: the most prevalent of disorder is related to paranoid thoughts with a 38% prevalence and panic, somatization, sensitivity to interpersonal relationships, anxiety, depression, and aggression are the next most prevalent disorders (22). Various studies that have been done on the life quality of transgender people, including Parola et al. (2010) and Newfield (2006), showed that people suffering from gender identity disorder suffer from depression and have a low life quality. Furthermore, hormone therapy has reduced their depression and improves their life quality. The results of the present study also included the high scores of the studied people (gender dysphoria) in the aggression and anxiety scales.

## Conclusion

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<sup>11</sup> اختلالات خلقی

<sup>12</sup> فحشا

<sup>13</sup> اختلال شبه جسمانی یا سوماتوفرم

There is no doubt that gender identity plays an important role in the growth, development, and performance of a person. According to Freud's, the study of gender identity is not only the study of the reproductive system and compulsive behavior, but it also determines the type of thoughts, actions, and performance of a person. Gender dysphoria is the specific and severe form of this incompatibility, which is caused by deviation of the natural process of gender identity development. Thus, since there is a difference between aggression, anxiety, depression, and gender role in people suffering from gender dysphoria and in people without such disorders, investigating these differences will enable us to provide the necessary information for affected family members. In this context, we can help families who may have cultural and social beliefs by increasing awareness about mental and psychological injuries, as well as the difficulty of adaptation to the opposite gender role to solve the clinical problem of a member of the family (sex reassignment). However, there is this fact in our society that the majority of people suffering from gender dysphoria are in a disordered <sup>14</sup> situation because of the negative attitude toward these people and the lack of social and cultural support. So, it seems necessary that in order to avoid the consequences of rejection <sup>15</sup> by family members, the criticism of ignorant social groups regarding people suffering from gender dysphoria, suitable psychological treatments (individual, group, familial, and social counseling) should be used for this clinical population to protect them against the consequences of rejection by family members and blame from the society.

Based on the results of this study, people suffering from gender identity disorder show depression disorders, anxiety disorders and aggression disorders. However, the living conditions of these patients in childhood, adolescence, and youth indicate that they face many challenges in retrieval of their original identity. Thoughts, feelings, perceptions, attitudes, expectations, and actions of people involved in dealing with these problems, and compatibility with the environment of the daily life process have an important effect on their personality. Therefore, psychologists and therapists should consider the personality of these people during the implementation of therapeutic interventions, too. However, there are limitations for this research which make its results less generalizable. This study

has various limitations, such as the limitations of sample, lack of examining the control group, including people without gender disorder, and small sample volume.

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