

Comparison of Depression, Suicidal Thoughts and Social Support between Transsexuals with and without Gender Change

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Abstract: ***Objectives:** Social acceptance of people with gender identity disorder in society is very difficult and this condition can lead to depression and suicidal thoughts. On the other hand, social support has a great impact on the psychological factors of these people. Therefore, this study was conducted with the aim of comparing depression, suicidal thoughts and social support between transsexuals with and without gender change. **Instruments & Methods:** This descriptive research of causal-comparative type was conducted among 60 members of transsexuals with gender change (30 people) and without gender change (30 people) of Iran's Association for the Support of Gender Bored Patients, who were selected by available sampling method. and completed the Beck depression, Beck suicidal thoughts and Sherbon and Stewart social support questionnaires. Data analysis was done by SPSS 24 software and using multivariate analysis of variance test. **Findings:** The mean scores of the variables of depression and suicidal thoughts in the transsexual group without gender change were higher than the transsexual group with gender change, but in the variable of social support, the transsexual group with gender change had a higher average score. There was a significant difference between the two groups in terms of suicidal thoughts and social support variables ($p=0.01$), but no significant difference was observed in terms of depression variable ($p>0.0$) **Conclusion:** In both groups of transsexuals with and without gender reassignment, there is a moderate level of depression and suicidal thoughts, but transsexuals without gender reassignment have more suicidal thoughts and transsexuals with gender reassignment are more likely to seek social support.*

Keywords: depression, suicidal thoughts, social support, transsexual, gender change

1. Introduction

One of the most important aspects of human identity is gender identity, which is formed during the process of socialization in the form of formal and informal institutions. Gender identity, as a psychological characteristic, represents a person's feeling of being a man or a woman, and in a natural state, it corresponds to a person's anatomical sex [1]. Having the characteristics of the opposite sex, but psychologically, he does not belong to that group. Such a person feels and behaves like a member of the opposite sex, this person is called transsexual [2].

The term transsexual or gender dysphoria refers to people in whom there is a clear distinction and difference between the gender experienced and expressed and the biological gender (fetus at birth). It should be noted that this term was known as Gender Identity Disorder [GID] in the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition [DSM-IV] [3]. Transsexuals are divided into two main groups based on the primary biological sex with which they are born; Some of them have male biological sex and female sexual identity [MF-TS], and another group has female biological sex and male sexual identity [FM-TS] [4]. There is not much statistical evidence based on which the prevalence rate of gender dissatisfaction can be determined, but according to the Diagnostic and Statistical Manual of Mental Disorders - Fifth edition, about one person out of every 30,000 adult men and about one person out of every 100,000 adult women seek sex reassignment surgery [4].

From the point of view of these patients, the only way to get rid of it is to change gender, which is done through hormone

therapy and gender reassignment surgery. Transgendered person means a person who intends to or is undergoing a social transition from male to female or female to male through hormone therapy and gender reassignment surgery. In gender reassignment surgery and hormone therapy, changes are made in the physical appearance and primary and secondary function of a person's sexual characteristics, in order to harmonize the person's body as much as possible with the opposite sex [3].

In a research on 18 male to female reassigned and one female to male reassigned in order to investigate the effect of the surgery, it was shown that none of the patients regretted the surgery [5]. Also, in a research entitled to investigate the level of gender identity and role congruence of 12 transsexuals after surgery, there was evidence of their satisfaction with the surgical condition and the improvement of the psychosocial condition of this group of sufferers [6]. However, people with gender dysphoria remain vulnerable and fragile even after gender reassignment surgery. Complications after surgery and unsatisfactory aesthetic issues can create serious challenges for these people [7].

Gender identity disorder is considered by a large number of researchers as a part of an underlying psychiatric disease, borderline personality [3, 2].

Budland et al., using a structured clinical interview for personality disorders, diagnosed a category B personality disorder in two out of nine patients with gender identity disorder [8]. [Happ et al., using a structured interview on 31 patients with gender identity disorder, reported that 42% of

the patients received a diagnosis of one or more personality disorders [9].

Also, the results of Green and Blandchard's research showed that personality disorders in men with gender identity disorder are more common than women with this disorder, and a group of these patients are suffering from narcissistic or borderline personality disorder [10].

The incidence of opposite sex behavior makes transsexuals more prominent in society. Also, the sexual orientation of these people before the change of gender places them in the group of homosexual people, and unfortunately, by assigning this label, the negative and critical view of the environment towards them increases [11]. Therefore, reducing the distress caused by the difference between a person's biological sex and the fundamental sense of being female or male is the main goal of changing the sex of these people. [12]. Reassignment makes transsexuals more receptive and active in various social activities and brings them out of social isolation and improves their mental health. But the inadequacies of surgery, its very high cost, convincing public opinion and gaining the satisfaction of the family and problems after gender change, especially the lack of acceptance by the family and society, put these people in a more vulnerable position [13]. According to the research conducted by Hep et al regarding the coexistence of sexual boredom disorder with other mental disorders, the highest coexistence with depression disorders was reported [9]. Pitts et al.'s study showed a higher level of depression for people with sexual boredom than normal people [14]. And Rakis et al. reported in a research titled "Quality of Life of Transsexual People" that gender reassignment and hormone therapy reduces their depression. Also, teenagers and adults with gender dissatisfaction before gender change are at increasing risk of suicidal thoughts, attempted suicide and ultimately successful suicide. But even after gender change, the adaptation of people is different, and suicidal thoughts and actions may continue [15].

According to the research conducted by Rahimi Ahmadabadi and colleagues in Iran, people with gender dissatisfaction scored high on the depression scale [16]. Oswalt and Lederer in the study of depression, suicide and mental health of transgender college students showed that transgender students are almost twice as likely to suffer from mental illness than normal students [17]. In the study of anxiety and depression in the transgender population, Bodeg et al. showed that the rate of depression symptoms was 1.1% in female transgender individuals and 8.3% in male transgender individuals, which was significantly higher than normal people. [18.] Another problem of transsexual people is suicidal thoughts, which is defined as self-reported thoughts about suicide and includes a range from a vague, but pervasive desire to die to a complete suicide plan [19]. An important precursor to suicide is suicidal thoughts. In a research conducted on a group of transsexuals aged 16-24, it was shown that 47% of transsexuals have thought about suicide and 19% have committed suicide in the past year] 20. [Also, according to the research conducted by Javaherian and Kochchian on 40 sexually dissatisfied people 65% of people had thought about suicide and 6 of them had attempted suicide once, 11 had attempted suicide 2 to 5

times, and 6 had attempted suicide more than 5 times. This indicates that the psychological pressures and numerous limitations faced by the sexually dissatisfied are so much that at least half of them have the motivation to give up life seriously [21]. Liu and Mustansky conducted a study titled "Study of suicidal thoughts and self-harm among homosexual, bisexual and transgender youth." The result of the research showed that the history of suicide attempt was 0.05 and low social support was associated with an increase in the risk of having suicidal thoughts, and general risk factors increase the possibility of suicidal thoughts and self-harm in these young people [22].

According to the results of Rodkin and Indrikos research, social support is important for maintaining the mental health of people, and the low level of this factor exposes transsexual people to suffering from depression, anxiety and psychosis [23]. [Social support is the help or support that is provided to a person by the members of social networks [24]. In Iran, the behavior of parents towards people with gender dissatisfaction is supportive in 20% of cases, but in 10% of cases, parents do not care about the issue. Or they simply ignore it, and in 70% of cases, parents have an attitude of anger and repression [25] .

This is despite the fact that social and family support and quality of life can be used as buffers against the emotional distress of these people [4]. According to a study conducted by Lobato et al. that 73% of people did not mention any difference in terms of improving relationships and social and family support]5. [Also, in the study of the correlation between social support and sexual function in men with gender identity disorder after gender reassignment surgery, Fallah et al. showed that the prevalence of sexual dysfunction is 84% and 851% of people had low social support.

And among the dimensions, the average social support from the family was higher (3.53%). Also, transgender men had low social support after surgery. [26]

Qaraat and Mohammadi in a study titled "Study of Perceived Social Support and Mental Health of People Seeking Gender Change" showed that the subjects seeking gender change who had social support from special people, friends and family, Psychologically, they had fewer disorders and at the same time had better mental health [27]. Nat Thorn and his colleagues conducted a research titled comparing mental health symptoms and levels of social support in the treatment of young people who wanted to change gender with dual or single identity. The results showed that a total of 388 young people in the age range of 16 to 25 years had 3 85% dual identity and 7 14% single identity. Data analysis showed that the single-identity group experienced significantly more anxiety and depression and had lower self-esteem than the dual-identity group. However, no significant difference was observed between the two groups in terms of involvement with self-injurious behavior other than suicide and the levels of social support, and both groups needed social support [28] Fuentes et al conducted a research on the predictive role of social support in life satisfaction of transgender people. The results showed that life satisfaction is related to emotional support from friends, financial help

from family and income level [29]. Dewey et al. also found that people with sexual boredom disorder receive less social support compared to people without sexual boredom disorder [30].

The limitations that exist for transsexual people before and after gender change, including the non-acceptance of these people from the family and society and the negative attitude of the environment, which can be more in Iranian society due to cultural and social reasons, puts these people in a more vulnerable position. [11.] Considering that in the cultural context of our country, the social acceptance of the behaviors of people suffering from gender dissatisfaction is very difficult and it is a stressful process for the affected person, These conditions can lead to depression and suicidal thoughts, and due to the impact of social support on the psychological factors of these people, with families and the society being aware of these people, it is possible to help the mental health of these people and since comprehensive research has not been conducted in Iran to compare depression, suicidal thoughts and social support before and after surgery, so this research was conducted with the aim of comparing depression, suicidal thoughts and social support between transgender and non-transgender transsexuals.

2. Tools and Methods

The current research method is a scientific-comparative description that was carried out in 2022. The statistical population of the research was all transsexual members with and without gender change of Iran's gender dysphoric patients support association, numbering 249 people. Sampling of the research was done in such a way that 60 transsexual people (30 transgendered and 30 non-transgendered) were selected by referring to the Society for the Support of Gender Bored Patients. It should be noted that the sample people were diagnosed by the psychiatrist of the Society for the Support of Gender Dyslexic Patients and under the supervision of this center, they received psychiatric services, hormone therapy, and consultation with surgeons, as well as counseling about gender identity and returning to society.

The research tool included the following questionnaires:

1) Beck depression questionnaire: [BDI-II] Beck depression questionnaire was introduced for the first time by Beck et al. in 1971. This test has been widely used to evaluate depression in patients with a psychiatric diagnosis and also for diagnosis in the normal population. This questionnaire has 21 questions and covers all elements of depression based on cognitive theory. In this questionnaire, the intensity of depression is graded on a Likert scale from 0 to 3 and it takes 5 to 10 minutes to complete. The total score of the questionnaire ranges from 0 to 63, and a score of 0 to 13 indicates partial depression, a score of 14 to 19 indicates mild depression, a score of 20 to 28 indicates moderate depression, and a score of 29 to 63 indicates severe depression [31]. This questionnaire does not express a point as the absence of depression and in the studies conducted on the second edition of this questionnaire, the internal consistency of this tool was reported as 0.73 to 0.92 with an average of

0.86 and an alpha coefficient of 0.86 for the patient group and 0.81 for the non-patient group [32]. Also, Dobson and Mohammadkhani obtained the Cronbach's alpha coefficient of 0.92 for outpatients and 0.92 for students, and the retest coefficient at one week interval was 0.93 [33]. In the present study, the reliability of the questionnaire was estimated to be 0.81 using Cronbach's alpha calculation method.

2) Beck Suicidal Thoughts Questionnaire: [BSSI] This questionnaire, which was prepared by Beck and Steer in 1991 in order to reveal and measure the severity of attitudes, behaviors and planning to commit suicide, is a 19-question self-assessment tool and each scale is set based on two point degrees from 0 to 2. A person's overall score is calculated based on the sum of scores, which is in the range of 0 to 38. There are 5 screening questions in Beck's suicidal ideation test. If the answers indicate active or passive suicide tendencies, the subject should continue with the next 14 questions. The duration of completing the questionnaire is 10 minutes on average. In this scale, a score of 0 to 5 indicates the absence of suicidal thoughts, a score of 6 to 9 indicates having suicidal thoughts, and a score of 20 to 38 indicates the intention to commit suicide. Cronbach's alpha (internal consistency) and concurrent reliability of this scale were between 0.89 and 0.96 and 0.83, respectively, and it has a significant correlation with Beck's depression and hopelessness scales [34]. This scale has been validated in Iran and its reliability through Cronbach's alpha is 0.95 and its concurrent validity with the depression scale of the Public Health Questionnaire is reported as 0.76 [35]. In the present study, the reliability of the questionnaire was estimated to be 0.85 using Cronbach's alpha calculation method.

3) Sherbon and Stewart Social Support Questionnaire: [MOS-SSS] This scale, compiled by Sherbon and Stewart in 1991, measures the amount of social support received by the subject.

It has 19 statements and 5 subscales of tangible support, emotional support, information, kindness and positive social interaction. This questionnaire is on a five-point Likert scale from "never" with a score of 1 to "always" with a score of 5. It should be noted that question 19 of this questionnaire is not graded. The highest score a person can get in this questionnaire is 95 and the lowest score is 19, and a higher score indicates more social support. Sherbon and Stewart examined the psychometric properties of this questionnaire and used Cronbach's alpha method to check the reliability of this test and obtained Cronbach's alpha coefficient of 0.97 for the whole scale [36].

In Iran, this questionnaire was used in the research of Jahanbakhshian and Zandipour. They confirmed the content validity of this questionnaire and obtained the reliability of this scale with Cronbach's alpha method of 0.94 [37].

Data analysis was done by SPSS 24 software. First, in order to check the normality of the data distribution, the Kolmogorov-Smirnov test was used, and the M-box test was used to check the equality of the variance-covariance matrices of the research variables, and the Levine test was

used to check the homogeneity of the variances. Then, multivariate analysis of variance test was used to analyze the data.

3. Findings

The average age in the transsexual group with gender change was 29.27 ± 27 years and in the group without gender change was 22.93 ± 3.12 years. Among transsexuals with gender change, 71% were male to female and 383% were female to male. Among transsexuals with gender change, 93% of them did hormone therapy along with change of cover, and none of the transsexuals without gender change had done hormone therapy, but 00% of them had change of cover.

The mean scores of the variables of depression and suicidal thoughts in the transsexual group without gender change were higher than the transsexual group with gender change, but in the variable of social support, the transsexual group with gender change had a higher mean score. There was a significant difference between the two groups in terms of suicidal thoughts and social support variables, but no significant difference was observed between the two groups in terms of the depression variable (Table 1).

Table 1: Comparison of the statistical mean scores of depression, suicidal thoughts and social support in two groups of transsexuals with and without gender change

Significance level	F value	Transsexual group without gender change	Transsexual group with gender change	Variables
0/324	0/99	14.16±21.10	8.9 ± 18.10	depression
0/001	22/48	± 5.5516.26	10.56 ± 35/3	suicidal thoughts
0/001	6/38	26.44±57.76	16.71±72.20	social support

4. Discussion

The aim of the present study was to compare depression, suicidal thoughts and social support between transsexuals with and without gender change. The results of multivariate analysis of variance showed that there is a significant difference at the level of 0.01 between transsexuals with and without gender change in terms of suicidal thoughts and social support. The results of this research on depression are contrary to the results of Rahimi Ahmedabadi et al. [16], Oswalt and Lederer [17], Bodag et al. [18] and Rakis et al. [15]. In these results, the average level of depression after gender change of transsexual people has decreased, but in the present study, no difference was observed in the level of depression between the two groups.

In order to explain this issue, we can say that considering that gender boredom is an issue related to culture and society.

In Iranian examples, due to the taboo and non-acceptance of these people from the family and society, due to gender-contradictory behaviors and after gender change, due to reputational and dignity issues, problems after surgery,

heavy operation costs, lack of a sexual partner, and other factors, they are still in social isolation. Also, transsexual people without changing their gender, because they have not yet taken steps to change their gender, can live with their families. Due to not losing the support base of the family, the objective aspects of their lives are less subject to inappropriate conditions. But people who have acted, due to the fact that they have changed their gender and presented themselves in the form of a new gender in society, are often rejected by the family, and the severity of their gender identity disorder affects the mental and objective aspects of their lives [38]. The existence of these issues causes the critical view of these people to continue and their problems remain even after gender change and causes them depression. In Cohen and Goren's study on 163 transsexuals who had an average of 2.5 years since their surgery, the feeling of disproportion between the anatomical sex and the sexual identity of the patients disappeared, and in terms of temperament, up to 64% of the people were very satisfied, and their main complaint was related to social interactions [39]. [Regarding suicidal thoughts, the results are based on the research of Budag et al. [18].

Liu and Mostansky [22] and Javaherian and Kouchian [21] were consistent, and the average suicidal ideation of the transsexual group without gender change was higher. In explaining this issue, it can be said that the presence of suicidal thoughts in transsexual people, which ultimately leads to suicide, is undeniable. But the important issue is the reason for the emergence of these thoughts, which is certainly not by itself. Existing discrimination, rejection from the family, dismissal from school or work, financial problems, long stages of gender change, all contribute to the emergence of these thoughts that by going through the stages of gender change and satisfaction after surgery and matching the person's appearance with the new gender and getting to know the roles related to the new gender with the passage of time, adaptation to the new life conditions will increase, and with the improvement of these conditions, the amount of suicidal thoughts will decrease [11]. Also, there is a relationship between social support and suicidal thoughts, and the higher the social support, the less suicidal thoughts [21]. As the quality of life increases after gender change, their mental health improves, their life expectancy increases and their suicidal thoughts decrease. Therefore, in our Iranian society, despite the negative attitudes about people with sexual disorders, especially transsexual people, and the lack of appropriate cultural and social support, most of these patients have a disturbed mental state and suffer from depression and anxiety disorders. This issue greatly reduces the chance of mental state after gender change. Based on this, surgery and hormone therapy alone are not enough, and the need for psychotherapy and counseling is always felt.

Regarding social support, the results of the present study are in line with the research findings of Fallah et al. [26], Qarait and Mohammadi [27], Radkin and Indrikos [23], Nat Thorne et al. [28], Fuentes et al. [29] and Davy et al. [30]. In explaining this finding, it can be said that the issue of social support for transsexuals is an issue related to culture and society, and the more society and individuals and families are aware, the more social support they provide to these

people. The behavior of the opposite sex, before the change of gender, makes these people more visible in the society and may place them in the group of homosexual people and have a negative and critical view of them that changing their gender and getting a body in harmony with their mind and behavior makes them more receptive and active in various social activities and causes their social support to increase after gender change. During the last few years and thanks to the progress of the cyberspace, the support of several famous artists for these people, support associations and the increase of study resources about these people, the awareness of the society has increased and these people benefit from more social support.

Regarding transgender people, it can be said that family and friends are the main source of social support. In fact, there are significant differences between these two sources of emotional and financial support. Friends provide more emotional support and therefore transgender people are more comfortable discussing their issues with their friends and friends generate higher levels of satisfaction. The possible justification for this article is that the identity of transsexual people may be more accepted by friends, and especially in the network of friends, these people are more easily chosen. The relative lack of emotional support from the family indicates that families should be strengthened and counseled in this regard. The family is the main source of financial support, and their type of support is mostly financial, and they hardly accept issues related to their child's gender change [40].

Factor and Rothblum compared transsexual men and women with non-transsexual brothers and sisters and found that the transsexual group received weaker social support from the family [41].

This research also has limitations that reduce the generalizability of the results. Among these limitations, we can point out that the sample is limited to one place and that they are hard to find and the volume is small. It is suggested that in the future research, strategies to increase the social support of transsexual people before and after surgery should be investigated.

What is certain is that in our society, despite the negative attitudes towards transsexual people and the lack of proper cultural and social support, most of these patients suffer from depression, thoughts related to suicide, and even lack of support from family and society in order to prevent its consequences, it is felt necessary to use psychological treatments (individual, group, family) and to inform the society about these people. However, depression and suicidal thoughts are moderate in both transsexual groups. Also, families who have such children must receive complete information on transgender disorder in order to provide the necessary emotional support in addition to financial support for their children.

5. Conclusion

In both groups of transsexuals with and without gender reassignment, depression and suicidal thoughts are present at a moderate level, but transsexuals without gender

reassignment have more suicidal thoughts and transsexuals with gender reassignment seek social support more.

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Conflict of interest

The researchers declare that there are no conflicts of interest.

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