



Original Article

The personality dimensions and sense of coherence in individuals with and without gender dysphoria

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Abstract

Introduction: This research aimed to comparing personality dimensions and Sense of Coherence (SOC) in individuals with and without Gender Dysphoria (GD).

Materials and Methods: The statistical community of this research concluded transgender clients referred to Tehran Psychiatric Institute during 2014-2016. The cisgender individuals selected among students of Mohaghegh Ardabili University in Ardabil city. Participants in both groups (n=60) were selected via convenient and the snowball sampling method. Research instrument included HEXACO personality dimensions inventory and Antonosky's Orientation to Life Questionnaire. Data analyzed through MANOVA, Independent T-test, and SPSS software.

Results: The mean scores in personality dimensions in openness to experience ($F=9.02$, $P<0.05$), honesty-humility ($F=8.09$, $P<0.05$), and in the sense of coherence scale ($T=2.18$, $P<0.05$) were significantly higher in transgender clients compared to cisgender people.

Conclusion: Based on the findings, it seems that sex reassignment surgery can improve personality and coherence, which have positive effects on mental condition of transgender clients.

Keywords: Coherence, Gender dysphoria, Personality

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Introduction

Gender Dysphoria (GD) is a kind of distress caused by a mismatch between one's expressed gender and the designated gender. Initially, gender dysphoria was used in the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders. This disorder was called gender identity disorder in the previous edition of DSM (1). Recently, the terms "Cisgender" and "Transgender" to prevent stigmatization has

been used, which respectively mean conformity and non-conformity with the birth-assigned gender (2). So far, much research has been conducted to examine personality in transgender people using different personality assessment tools that have had different and even contradictory results. Some studies did not consider this problem due to a mental disorder and did not believe in significant differences between personality disorders of

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individuals with and without gender dysphoria (3). However, some studies reported personality disorders from axis I and II in transgender people (4-7). Different results have been reported in studies using the Minnesota Multiphasic Personality Inventory (MMPI) to assess people's personality with gender dysphoria. For example, in a study, high scores were reported for depression, anxiety, and schizophrenia scales in people with gender dysphoria (8). However, in some studies, the scores of transgender people in the MMPI test were reported in the normal range (9), or only the differences were seen on psychopathic deviate (4) or paranoia (10) subscales. On the other hand, assessing transgender people by the Millon Clinical Multiaxial Inventory (MCMI) showed the characteristics of histrionic, dependent (11), compulsive, narcissistic, and avoidant (12). In a study, transgender people have been examined by NEO Five-Factor Inventory (NEO-FFI), and results showed that all of them are in the middle of the spectrum in all dimensions (8). Some studies reported the difference between transgender and cisgender people to derive from their difference in gender identity (13). A study examined the attachment styles and personality in transgender people. Only 16% of the research participants showed a personality disorder, and 50% of them showed a high level of performance based on the Shedler-Westen assessment procedure-200 scale (SWAP-200). Results of Q-factor analysis reported three clusters of personality, including healthy functioning (54%), depressive/introverted (32%), and histrionic/extroverted (14%) (14). Although some studies reported the co-occurrence of gender dysphoria and Autism Spectrum Disorder (15,16), others did not confirm this co-occurrence (17). In a study investigating differences in personality disorders between transgender women and transgender men, the histrionic disorder was significantly higher in the transgender women. This study has also shown that the low educational level and starting age of GD in adults significantly correlate with personality disorders (18).

Although many studies have been conducted on the quality of life in transgender people both before and after sex reassignment surgery (18-24), many studies showed the relationship between the sense of coherence and quality of life, no effort has been made directly on a sense of coherence in people with gender dysphoria.

Nonetheless, similar studies showed that more peer support, more accessible health and social services, acceptance of transgender identity, and greater resilience could help prevent depression, anxiety, and somatization in transgender people (25,26).

Regarding the above, given that research on the personality dimensions of transgender people is limited and has conflicting results, it seems that the literature in this area requires further research. This is important because a more comprehensive understanding of the personality of transgender people not only can assist professionals in this area, but it can also make it easier for transgender people to be accepted more into the family and community in which they live.

This research compares the personality dimensions and sense of coherence in people with and without gender dysphoria. The negative characteristics dimensions and personality disorders were usually compared in these two groups of people in previous researches. This research mainly follows researches, which uses the NEO test to compare these two groups. A complete form of this inventory, called HEXACO, was used to show whether the gender dysphoria is a psychiatric problem or psychiatric problems in incongruence gender results from the social pressure on these people.

Materials and Methods

This research comprises individuals with gender dysphoria who referred to Tehran Psychiatric Institute in 2001-2015. All of whom were allowed to undergo sex reassignment surgery, with a population of about 3,000. The sample of this research was 60 participants in two groups: 30 transgender people (8 transgender men (FtM) and 22 transgender women (MtF) aged 18-38 years) who underwent sex reassignment surgery and were selected via snowball sampling method from Tehran Psychiatric Institute. Thirty cisgender (12 men and 18 women aged 22-45 years) in the same way were selected as the control group and matched based on age and marital status with the first group. Note that we asked all of the control group members regarding their mental disorder background, and none of them had a history of referring to a psychologist or psychiatrist. By arrangements between the University of Mohaghegh Ardabili and Tehran Psychiatry Institute, several patients whose

gender dysphoria had been confirmed by specialists of the institute, and underwent sex reassignment surgery, were introduced to us in order to execute this research. We got permission from the institute to talk to them. Then, we talked to them in person, and some of them agreed to be part of our research. They also helped us find more people, their friends, who have already had sex reassignment and liked to cooperate with us in our study. After the initial interview and guidance about responding tools in this research, we gave them questionnaires to fill. Besides, we selected control group members from healthy students of the University of Mohaghegh Ardabili and gave them questionnaires. All participants were asked to respond to the demographic inventories containing gender, age, education level, and birth order. We utilized the Persian version of the long-form HEXACO personality inventory and the short form of orientation to life questionnaire.

Research instrument

A) *HEXACO Personality Inventory*: We utilized the Persian version of the long-form HEXACO personality inventory (27,28) to measure the personality dimensions. This inventory has 100 items, including six subscales:

honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience. The Persian version of this inventory has been validated already. Cronbach's alpha of the Persian HEXACO-PI scales were 0.81 for extraversion, 0.76 for openness to experience, 0.80 for honesty-humility, 0.74 for emotionality, 0.73 for agreeableness, and 0.71 for conscientiousness (29,30).

B) *Short Form of Orientation to Life Questionnaire*: To measure the sense of coherence, we applied the Persian version of the short form of orientation to life questionnaire (31). This questionnaire has 13 items, including three subscales: comprehensibility, manageability, and meaningfulness. Cronbach's alpha of the "Persian version of a short form of orientation to life" questionnaire is in the range of 0.74 to 0.91 (32).

C) *Demographic Checklist*: It includes age, gender, education level, and birth order.

We analyzed data using multivariate analysis of variance (MANOVA), independent t-test, and SPSS version 16.

Results

The demographic variables were presented in Table 1.

Table 1. Demographic findings in two groups of transgender and cisgender people

Groups	Age		Birth order		Education	
	Mean	(SD)	First-born (%)	Other (%)	Bachelor or higher	Under Bachelor
Transgender people	26.43	4.86	60%	40%	68%	32%
Cisgender people	27.4	4.36	13.30%	86.70%	76%	24%

F, Females; M, Males; N, Sample size; SD, standard deviation.

The differences between transgender and cisgender groups in dimensions of HEXACO and sense of coherence were seen in Table 2. This table shows the independent t-test data to compare two groups in the sense of coherence scale. According to Table 2, transgender people have significantly higher scores in the sense of coherence scale than cisgender people. It is indicated that groups have significant differences in two dimensions of openness to

experience and honesty-humility. Scores of these two dimensions are higher in transgender people. No significant differences are observed in other personality dimensions. Before doing any variance analysis test in Table 2, all assumptions of BOX test (BOX=26.83, F=1.13, $P > 0.05$) and test of significance of multivariate variance (Wilks' lambda=0.72, F=3.5, $P < 0.05$) was confirmed.

Table 2. Difference between transgender and cisgender people in dimensions of HEXACO and sense of coherence

Variables	Transgender people		Cisgender people		Difference between groups		
	Mean	Std. Error	Mean	Std. Error	Test statistic	df	Sig. ^d
Honesty-humility ^c	50.17	0.69	47.23	0.69	9.02 ^a	1	0.004
Emotionality ^c	51.43	1.11	51.23	1.11	1.21 ^a	1	0.28
Extraversion ^c	48.4	0.69	49	0.69	0.38 ^a	1	0.54
Agreeableness ^c	49.33	0.97	48.57	0.97	0.31 ^a	1	0.58
Conscientiousness ^c	48.87	0.88	48.7	0.88	0.02 ^a	1	0.89
Openness to experience ^c	52.77	0.77	49.83	0.77	8.09 ^a	1	0.006
Sense of coherence	54.06	1.39	51.03	1.39	2.18 ^b	58	0.03

F, Females; M, Males; N, Sample size; SD, standard deviation. a MANOVA Analysis, MANOVA indicated a significant overall difference between the two groups (Wilks' lambda=0.72, F=3.5, P<0.05), b T-test, c HEXACO personality dimensions, d P<0.05

Discussion

This research compared the HEXACO personality dimensions and sense of coherence between transgender and cisgender people. Transgenders had higher scores in some personality dimensions (openness to experience and honesty-humility) significantly than cisgenders. Also, the score of the sense of coherence in transgender people is higher than cisgender people. These results confirm many studies that report differences in personality traits between transgender and cisgender people (4-7,10-12). In general, different studies that have examined the personality. Transgender people with different personality assessment tools have reported more personality disorders in transgender people, especially on borderline and narcissistic personality disorders (3,4,6,33). However, the role of more significant stress in these individuals, which is due to concerns about being rejected by family and society, seems to be diminished in these studies. As in many studies, the effects of this stress and anxiety on the mental health of trans people have been discussed (13,26,34-37), and it has been shown that the positive personality traits and mental health have been improved by using different treatments in transgender people (38-42). Our research, directly and indirectly, confirms these studies and subscribes those findings in which gender dysphoria is not classified as a mental disorder (3,13,43). Given that all of the transgender people in our study had undergone gender reassignment surgery, it may be possible having higher scores on the sense of coherence scale, as well as higher scores on openness to experience and honesty-humility in transgender people, in comparison to cisgender people, stems from improved

mental health resulting from receiving sex reassignment therapy.

Openness to experience in HEXACO is indicated by four facets including aesthetic appreciation, Inquisitiveness, creativity, and unconventionality, and higher in this component shows that people participate in various forms of art and take advantage of the natural beauties, intend to search information, and experience in the human world, search actively for solutions, and their beliefs probably seem strange or extreme for others. The low level of dimension is beside lack of searching for the new and creative solutions for problems, lack of attention to the natural beauties, distance from travel, unwillingness, covering, impulsivity, and lack of creativity (30). Based on our findings, higher scores in openness to experience scores may show that transgender people want a type of life beyond their surrounding society taboos and clichés.

One hypothesis is that their desire to change the stereotypes and clichés of the society stereotypes has intensified their need for gender reassignment and fight against their biological gender. About this assumption, maybe intention to live differently and beyond the pre-determined cliché in these people can be one motivating factor to fight against their gender and intend to change that, which helps them feel more free and liberated. Another hypothesis is that differences with other members of society have shaped this style of thinking. A possible explanation is that transgender people may think that if society changed its stereotypes and clichés, others could accept their preferred gender more efficiently. However, the authors subscribe to the latter supposition. Besides, this can be the reason for higher scores of

transgender people in the honesty-humility dimension. This dimension is related to purity, impartiality, avoidance of greed, and humility. Maybe their more honesty and humility is a mechanism that helps them to be more accepted in the community. According to the mentioned issues, to explain the higher scores of transgender people in the sense of coherence, compared to cisgender people, we can refer to studies that investigate the quality of life in transgender people before and after getting different sort of therapy. Many studies have shown that sex reassignment surgery and hormone treatment reduce their depression and disorder and positively affect their coherence, mental health, and quality of social life. Treatments also promote cognitive performance in transgender people (19-23). Also, studies show that sense of coherence is not constant chronically (44,45) and may increase through a change in the environment, improving the interpersonal relationship, and appraising people to participate in life-supporting actions (46). Therefore, it can be assumed that sense of coherence has increased in people with gender dysphoria by stabilization of gender identity and place in the favorite gender roles. Regarding this fact that some people are dissuaded from surgery because sex reassignment surgery can make people be excluded from family and friends, probably participants in this research, considering the society in which they live, which is full of misconception about gender

reassignment, have strong social support that has given them the courage to undergo gender reassignment surgery. As shown in some studies, sense of coherence was related to social support, and higher social support increases the sense of coherence (47). Therefore, higher social support can be another reason for higher scores of transgender people who participated in this research in the sense of coherence scale.

This research has several limitations. First, it is a cross-sectional study that examines transgender people after sex reassignment surgery. Future studies should examine these people in the longitudinal study before sex reassignment surgery, after hormone therapy, and after sex reassignment surgery. The second limitation is the use of a self-report questionnaire in this study. Using other tools, such as direct interviews and observation, can complement the tools used in this study. The small number of samples is another limitation of this study.

Conclusion

Based on the findings, it seems that sex reassignment surgery can improve personality and coherence, which have positive effects on mental condition of transgender clients.

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