Resilience in Individuals with Gender Dysphoria: Association with Perceived Social Support and Discrimination

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SUMMARY

Objective: Psychological distress associated with discrimination has been proposed to have an indirect effect on the development of mental disorders through negative influence on an individual's cognitive, affective, and social coping strategies. The aim of this study was to investigate the association between resilience, perceived social support, and perceived discrimination in individuals with gender dysphoria.

Method: Individuals with gender dysphoria were assessed with Turkish validated forms of Resilience Scale for Adults (RSA), Multidimensional Scale of Perceived Social Support (MSPSS), Perceived Discrimination Scale (PDS), and Beck Depression Inventory (BDI). Diagnoses of mental disorders, history of suicide attempt, and non-suicidal self-injury were assessed by clinical interviews. Self-report forms were used to obtain demographic information and gender transition-related features.

Results: The participants (n=116, 88 trans men) had a median age of 25. Significantly low RSA scores, indicating poor resilience, were obtained from participants with lifetime (59.5%) and present (27.6%) diagnosis of any mental disorder and history of suicide attempt (23.3%). There was significant direct correlation between RSA and MSPSS scores, inverse correlation with BDI, and personal PDS scores, but not with group PDS. Regression analysis revealed that only the friends domain score in MSPSS predicted better resilience, whereas the personal PDS predicted poor resilience.

Conclusion: Based on our data, these findings support the association between poor resilience and vulnerability to mental and behavioral problems in individuals with gender dysphoria. The associations reveal the significance of addressing discrimination and assisting individuals with gender dysphoria to develop strategies for peer support in mental health services.

Keywords: gender dysphoria, social support, discrimination

INTRODUCTION

The prevalence of mental disorders in lesbian, gay, bisexual, and transgenders (LGBT), who are considered as sexual minority due to their sexual orientation, gender identity and expression, is regarded as an important public health problem (Meyer 2001). Gender dysphoria is defined as the distress experienced by an individual due to incongruence between sex at birth, primary and secondary sexual characteristics and gender role and gender identity (Fisk 1974). Diagnoses like 'transsexualism' (according to ICD-10) and 'gender identity disorder' (according to DSM IV-TR) required a strong and constant identification with the opposite sex (World Health Organization 1992, American Psychiatric Association 1994). However, in DSM 5, the diagnostic category of 'gender dysphoria' was used to better reflect the diversity covered by the transgender concept, which is an umbrella term involving various degrees of incongruence of sex and experienced gender (American Psychiatric Association 2013). The current approach to gender dysphoria is to gradually render physical sexual characteristics compatible with experienced gender identity through a multidisciplinary process. This involves a thorough psychological, physical, and social evaluation (Coleman et al. 2011). Among sexual minority groups,

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research on the mental health of individuals with dysphoria is relatively few. The majority of research on gender dysphoria has focused on sexually transmitted diseases or the outcomes of the gender transition process (Institute of Psychiatry 2011).

In studies conducted with different sampling and evaluation methods, the prevalence of mental disorders associated with stress (especially major depression and anxiety disorders) has been reported higher in individuals with gender dysphoria, compared to the general population (Clements-Nolle et al. 2001, Nuttbrock et al. 2010). In a cross sectional study conducted in USA, clinical depression was reported in 44.1%, anxiety disorders in 33.2%, and high levels of psychological stress in 40.1% of a gender dysphoric population (Bockting et al. 2013). A multicenter study carried out in four European countries on people with gender identity disorder, 38 % were diagnosed with a current DSM-IV Axis I disorder, especially major depression and anxiety disorders; lifetime co-existing diagnosis was found in 70 %, using structured clinical interviews (Heylens et al 2014). The lifetime history of suicide attempt was reported at a rate of 30% or more in transgender populations (Clements-Nolle et al. 2001, Nuttbrock et al. 2010). Similarly, lifelong prevalence of mental disorders and history of suicide attempt have been found to be high in this group in studies conducted in university clinics in Turkey (Kaptan 2010, Turan et al. 2015, Yüksel et al. 2016).

However, this line of research has also revealed that mental disorders and suicide attempts have not been detected in every individual with gender dysphoria. In other words, gender dysphoria is not the single and sufficient determinant of the development of a mental disorder. Bockting and colleagues (2013) reported that there was no direct relationship between the level of gender dysphoria and the presence and severity of accompanying psychiatric symptoms. In the impairment of mental health, risk factors such as stigmatization, discrimination, violence, and maltreatment in childhood may play a role. It has been suggested that in sexual minority groups chronic and social sources of stress contribute to the development of psychological symptoms (Mays and Cochran 2001, King and Nazareth 2006, Kuyper and Vanwesenbeeck 2011, Burton et al. 2013). Research in various countries indicates that transgenders are frequently subjected to discrimination and violence based on their gender identity (Grant et al. 2011, European Union Agency for Fundamental Rights 2014). Studies comparing transgender individuals with their siblings or general community point to experience of discrimination at a higher rate (Factor and Rothblum 2007, Reisner et al. 2014). In an online survey carried out with a large LGBT sample in Turkey, transgender individuals were frequently confronted with various forms of discrimination in all domains of life (Yılmaz and Göçmen 2015). Turkey has been recorded with highest rate of hate murders targeting transgender individuals in Europe (TvT Research Project 2015).

The effects of stress associated with stigmatization is often considered within the framework of minority sress model developed by Meyer (2003). In this model, experienced discrimination, violence and exclusion are defined as distal stress sources, and perceived discrimiation and expectation of discrimination as proximal stress sources. In transgender individuals, a correlation was reported between the experience of discrimination and suicide attempt, and the presence and severity of depressive symptoms (Clements-Nolle et al. 2006, Bockting et al. 2013). In addition to its direct negative effects, the stress of stigmatization has been suggested to render some individuals in minority groups more vulnerable by its negative impact on the acquisition of coping skills (Hatzenbuehler 2009).

Some factors other than stress may also contribute to the development of psychopathology in individuals exposed to similar stressful conditions. Research investigating the resilience of individuals with gender dysphoria is scarce, and features that could be protective when supported still need to be revealed. Although there are vaious definitions of psychological resilience, it basically refers to low vulnerability to risky experiences in the environment, leading to relatively favorable outcomes in spite of these experiences, and to an individual's capacity to overcome stressful and adverse conditions (Rutter 2012). Resilience was initally more narrowly defined and considered as a personal chracteristic related with processing of a single and short-term trauma. More recently, it has been conceptualized as a dynamic construct in which the interaction of different factors and systems contribute to resilience against advere conditions (Herrman et al. 2011). In psychological resilience, in addition to biological features, individual factors such as personality characteristics, locus of control, self-esteem, cognitive evaluation style and optimism, along with environmental factors such as social support level and features associated with society and culture also play part. In this respect, interactions of these characteristics with risk factors are emphasized.

Differing conceptualizations of psychological resilience leads to variations in evaluation methods (Atkinson et al. 2009, Davydov et al. 2010). Some investigators suggest that resilience cannot be measured directly and response to adverse events should be evaluated in their own contexts. Some of the scales developed to evaluate psychological resilience directly with self-report instruments require the presence of a definable stressful event and involve the retrospective evaluation of the consequences of past event by the individual (Tedeschi and Calhoun 1996, Connor and Davidson 2003, Smith et al. 2008). Some scales such as Resilience Scale for Adults (Friborg et al. 2005, Basım and Çetin 2011) and Psychological Resilience Scale (Wagnild and Young 1993) involve some subjective factors empirically shown to contribute to the psychological resilience.

Earlier studies aiming to determine factors associated with resilience in gender dysphoria took the presence or absence of the mental disorder as an indicator of resilience (Bockting et al. 2013, Nuttbrock et al. 2014) or they were conducted with qualitative methods (Singh et al. 2011, Singh and McKleroy 2011). The only study investigating psychological resilience using a scale evaluating resilience was carried out by Bariola and colleagues (2015), which used the Brief Psychological Resilience Scale.

The aim of the present study was to investigate the relationship between psychological resilience, that is assessed with a culturally valid scale, with perceived disrimination, social support, sociodemographic, clinical, and gender transition-related features within a clinical sample with gender dysphoria in Turkey.

METHOD

Participants

Among individuals presenting with gender dysphoria to Psychiatry Clinics of Hacettepe University Hospital between December 2013 and December 2015, those who have gave informed consent were included in the present study. Evaluation of all participants in terms of gender dysphoria and lifetime and present mental disorders was performed with clinical interviews conducted by two psychiatrists experienced in psychopathology, one of whom was one of the authors of the present study. It was openly stated that the decision to participate in the study would have no effect on the psyhiatric evaluation, follow up, and sex reassignment processes, if requested by the patient. There were three subjects that did not consent to participate in the present study and the remaining 133 subjects were diagnosed with gender identity disorder according to DSM-IV (American Psychiatric Association 1994). The present study was carried out with the approval of The Ethical Committee for Non-interventional Clinical Studies of Hacetttepe University.

Instruments

Participants filled out a questionnaire prepared by the authors to determine their gender transition-related, as well as sociodemographic features. Transition questionnaire included items on social transition characteristics such as disclosure with regards to their gender identity, choice of a name congruent with experienced gender, ulizitation of gender-congruent name and clothes, and also medical transition features such as using cross-sex hormone treatment currently or in the past, a history of any surgical procedure for sex reassignment (including genital surgeries). In this questionnaire replied as yes or no, the congruence of name or clothing to experienced gender was judged by the participant. Features of social transition were assessed in three different contexts: family, friends, and work/school (for example, "at present my friends adress me with the name I determined"). Social transition is considered present when experienced gender-congruent name and clothes are used in all contexts.

Resilience Scale for Adults (RSA) was used for the assesment of psychological resilience. It was developed by Friborg and colleagues (2005), and the reliability and validity of the Turkish form was reported (Basım ve Çetin 2011). RSA has 33 items with responses ranging from 1 to 5, where higher scores indicating better resilience. In addition to the total score, perception of self (6 items), perception of future (4 items), structural style (4 items), social competence (6 items), family cohesion (6 items), social resources (7 items) subscale scores can be calculated. Seventeen participants with missing items in RSA were excluded from evaluation. In this study cohort (n = 116), Cronbach's alpha internal consistency coefficient for RSA overall score was found to be .89. It was .73 for self-perception, .75 for perception of future, .63 for structural style, .69 for social competence, .74 for family cohesion, and .62 for social resources. Coefficients are in a similar range to those found in the Turkish validation study (Basım and Çetin 2011).

Multidimensional Scale of Perceived Social Support (MSPSS) was administered to evaluate overall and source specific level of perceived social support. The scale was developed by Zimet and colleagues (1988), and the validity and reliability of Turkish version was demonstrated (Eker et al. 2001). The scale has 12 items with 1 to 7 Likert type responses with higher scores indicating higher social support level. The Turkish version included three domains (family, friends, and significant other) each of which was evaluated with four items. In the sample of the present study (n = 115) Cronbach's alpha coefficient was calculated to be .86 for total score.

Perceived Personal Discrimination Scale (PDSPers) and Perceived Group Discrimination Scale (PDSGroup) are components of Perceived Discrimination Scale developed by Ruggiero and Taylor (1995). They were used in order to evaluate the perceived level of transgender identity-related discrimination experienced by individuals and transgendered people as a group separately. In the present study, items in the Turkish version of the scale (Baysu 2007, Akbaş 2010) were adjusted to reflect discrimination against transgender identity. Items required responses in five levels using the Likert style. The participants were asked to state the frequency of discriminatory experiences. Higher scores correspond to higher levels of perceived discrimination. PDSPers included four items related to discrimination against individual (for example, 'I was made fun of' or 'I was insulted because I am transgender'). Scores ranged between 4-20. The PDSGroup included seven items related with discrimination against transgender individuals in Turkey (for example, 'How often do transgender individuals experience discrimination when looking for

jobs in Turkey?'). The scores ranged from 7-35. In PDSPers, feeling not accepted/dissented, feeling persecuted, feeling humiliated/harassed, and feeling ostracized were questioned. As for PDSGroup, discrimination experiences while applying for job, looking for accomodation, in the street, while shopping, at school, at work, and in health facilities was questioned. For each items the distribution of responses and median scores were calculated. For PDSPers, Cronbach's alpha coefficient was calculated to be .84, and it was .89 for PDSGroup.

Beck Depression Inventory (BDI) was used to determine the risk of depression and to measure the distribution and severity of depression symptoms (Beck 1961). Its reliability and validity study in Turkish has been carried out (Hisli 1989). In the sample of the present study (n = 108), Cronbach's alpha coefficient was calculated to be .91.

Statistical Analysis

All analyses were carried out with SPSS Statistics 17.0. Normal distribution of the data was evaluated with analytical (Kolmogorov-Smirnov test) and visual (histograms, probability graphs) methods. Descriptive statistics were expressed with means, standard deviations, median, interquartile range (IQR), and minimum-maximum values for continuous variables and with percentages for categorical variables. As the scale scores in the study were not normally distributed, comparisons between two groups were analysed by Mann-Whitney U Test and comparions between more than two groups by Kruskal-Wallis Test. For correlation analysis between variables, coefficients of correlation and statistical significance was calculated with Spearman's Test. Multivariate linear regression model was used to evaluate independent effects of different variables on psychological resilience scores. Residual plots were used to assess the goodness of fit of the regression models. The statistical significance was set as a p value < 0.05.

RESULTS

Eighty-eight of the participants were trans men, and the median age of the participants was 25 (17-51). Demographic and clinical characteristics of the participants are presented in Table 1, and gender transition-related features are presented in Table 2.

Table 1. Demographic, clinical characteristics of participants (n = 116)

Age: *Mdn* (IQR), min-max	25 (8), 17-51
Gender: n (%)	
Trans men	88 (75.9)
Trans women	28 (24.1)
Final educational attainment: n (%)	
None	2 (1.7)
Primary education	21 (18.1)
High school	30 (25.9)
University or higher	63 (54.3)
Continuing work/ education: n (%)	
No	49 (42.2)
Yes	67 (57.8)
Past mental disorder: n (%)	
None	47 (40.5)
Major depression	59 (50.8)
Anxiety disorders	10 (8.6)
Substance use disorders	5 (4.3)
Others	2 (1.8)
Present mental disorder: n (%)	
None	84 (72.4)
Major depression	27 (23.3)
Anxiety disorders	4 (3.4)
Others	1 (0.9)
History of self-injury: n (%)	33 (28.4)
History of suicide attempt: n (%)	27 (23.3)
Life long substance abuse: n (%)	11 (9.6)
(Current) nicotine use: n (%)	58 (50.0)
(Current) alcohol use: n (%)	45 (38.8)

Table 2. Gender transition-related features of participants (n = 116)

	n (%)
Coming out (at least in one context: family, friends, work/ school)	103 (88.8)
Gender congruent name (at least in one context: family, friends, work/ school)	66 (56.9)
Gender congruent clothes (at least in one context: family, friends, work/ school)	95 (81.9)
Gender congruent clothes not limited with family	97 (83.6)
Social transition	62 (53.4)
Partner (past or present)	99 (85.3)
Cross-sex hormone use (past or present)	33 (28.4)
History of any surgical intervention for sex reassignment	20 (17.2)
History of surgical intervention involving genitals	6 (5.2)

Descriptive statistics for RSA, MSPSS, PDSPers, PDSGroup, and BDI scores are presented in Table 3. No difference was found between genders in terms of RSA scores (U = 998.0, p = 0.131). Psychological resilience score increased with age, but the relation was weak (r_s = .282, p = 0.002, Spearman's Test). There was no difference in RSA scores according to the level of education (χ^2 = 2.236, p = 0.525). In participants who work or continue their education, RSA scores were significantly higher (U = 1272.5, p = 0.039). RSA scores were found to be significantly lower in those with lifetime or current mental disorder diagnosis (respectively, U = 1045.5, p = 0.001; U = 687.5, p = < 0.001). RSA scores were significantly lower in those with history of suicide attempt (U = 788.5, p = 0.025), but no relation was found between RSA scores and history of non-suicidal self-injury (U = 990.5, p = 0.082).

As for the relationship between RSA scores and gender transition-related features, the participants who came out in more than one context (U = 422.5, p = 0.031), whose gender expression was in line with the experienced gender, social transition was accomplished (U = 1138.0, p = 0.003), and those who used cross-sex hormones (U = 892.0, p = 0.003) had significantly higher psychological resilience scores. Whereas, history of surgical intervetion for sex reassignment had no significant effect on scores (U = 738.0, p = 0.105).

Table 3. Scale scores of participants

	M (*SD*)	*Mdn* (IQR) min-max
RSA (n = 116)	128.62 (20.26)	129 (30), 64-165
MSPSS Total (n = 115)	65.74 (14.76)	69 (20), 24-84
MSPSS Family (n = 115)	25.69 (8.26)	28 (13), 5-35
MSPSS Friends (n = 115)	22.23 (6.16)	24 (10), 4-28
MSPSS Other (n = 115)	23.79 (6.62)	28 (6), 4-28
BDI (n = 108)	8.84 (9.23)	5.5 (11), 0-55
PDS Pers (n = 115)	9.51 (4.0)	10 (6), 4-20
PDS Group (n = 113)	25.82 (6.53)	26 (9), 7-35

PDSPers: Perceived Personal Discrimination Scale; PDSGroup: Perceived Group Discrimination Scale; BDI: Beck Depression Inventory; MSPSS: Multidimensional Scale of Perceived Social Support; RSA: Resilience Scale for Adults

The correlation coefficients between RSA and MSPSS, PDSPers and PDSGroup scores are shown in Table 4. Moderate positive correlation was found between RSA total score, MSPSS total, and all subdomain scores, and moderate negative correlation was found with PDSPers scores. No relation was found between PDSGroup scores and total and subscale scores of RSA. The response distribution to items of PDSPers and PDSGroup are shown in percentages in Table 5. There were significant differences in RSA scores in participants who expressed different frequencies of personal discriminatory experiences of not being accepted, feeling persecuted and humiliated (respectively, χ^2 = 14.594, p = 0.006, χ^2 = 17.524, p = 0.002, χ^2 = 17.082, p = 0.002, Kruskal-Wallis Test).

Table 4. Correlations (r_s) between total and subscale scores of RSA and perceived social support and discrimination scores (n = 115)

	MSPSSTotal	MSPSSFamily	MSPSSFriends	MSPSSOther	PDSPers	PDSGroup
RSATotal	.495**	.403**	.463**	.301**	-.353**	-.066
Perception of self	.284**	.191*	.302**	.221*	-.271**	-.039
Perception of future	.182	.071	.235*	.194*	-.185*	-.022
Structural style	.146	.022	.189*	.237*	-.151	.024
Social competence	.346**	.215*	.397**	.215*	-.251**	-.055
Family cohesion	.576**	.652**	.330**	.203*	-.348**	-.126
Social resources	.528**	.402**	.618**	.261**	-.289**	-.086

r_s: Spearman's correlation coefficient; *p < 0.05; **p < 0.01; p values > 0.05 for other r_s
PDSPers: Perceived Personal Discrimination Scale; PDSGroup: Perceived Group Discrimination Scale; MSPSS: Multidimensional Scale of Perceived Social Support

Table 5. Distribution of responses (percentage) in PDSPers and PDSGroup items (n = 116)

	Never	Rarely	Sometimes	Frequently	Always
PDSPers items					
Felt not accepted	27.6	23.3	31.0	12.9	5.2
Felt persecuted	23.3	27.6	30.2	12.1	6.9
Felt humiliated	28.7	27.8	20.0	11.3	12.2
Felt ostracized	43.1	23.3	22.4	7.8	3.4
PDSGroup items					
Applying for a job	3.5	4.4	14.9	26.3	50.9
Looking for accomodation	7.0	9.6	20.0	27.0	36.5
In the street	5.2	11.3	22.6	28.7	32.2
While shopping	11.3	16.5	22.6	22.6	27.0
At school	4.3	11.3	17.4	29.6	37.4
At work	2.6	10.4	16.5	33.9	36.5
In health facilities	21.1	21.9	18.4	20.2	18.4

PDSPers: Perceived Personal Discrimination Scale; PDSGroup: Perceived Group Discrimination Scale

A strong negative correlation was found between BDI scores and RSA scores (r_s = -.659, p < 0.001, Spearman's Test, n = 108). In those with BDI score of 17 or over, (n = 22, 21.4 %) RSA scores were found to be significantly lower than those with scores under 17 (respectively, median (IQR); 106.5 (23), 134.5 (28); U = 247.0, p < 0.001). In those that completed their social transition, mental disorders were detected at significantly lower rates (χ^2 = 4.517, p = 0.034), and depression symptom levels were lower (U = 941.5, p = 0.002).

The regression model used to evaluate the independent effects of demographic and gender transition-related features, the severity of perceived individual discrimination and perceived social support on RSA scores (Table 6) accounted for 35.1% of overall variance. Perceived level of friend support was associated with better psychological resilience (t = 3.082, p = 0.003), whereas perceived discrimination level against the individual was associated with worse psychological resilience (t = -2.012, p = 0.047).

Table 6. Regression analysis (with enter method) with total score of Resilience Scale for Adults as dependent variable (R^2 = .351, F(8,113) = 7.095, p < 0.001) (n = 114)

	B (SE)	β	t	P	% 95 CI
(constant)	98.588 (12.073)		8.166	**< 0.001**	74.650 – 122.526
Age	.034 (.257)	.012	.131	0.896	-.476 – .544
Work/ school (+)	3.595 (3.509)	.087	1.024	0.308	-3.363 – 10.554
Social transition (+)	4.474 (3.494)	.110	1.281	0.203	-2.454 – 11.402
Hormone use (+)	5.633 (4.049)	.126	1.391	0.167	-2.395 – 13.662
MSPSSFamily	.421 (.235)	.171	1.793	0.076	-.045 – .886
MSPSSFriend	.947 (.307)	.286	3.082	**0.003**	.338 – 1.556
MSPSSOther	-.014 (.284)	.005	-.050	0.961	-.576 – .548
PDSPers	-.918 (.456)	-.180	-2.012	**0.047**	-1.822 – -.014

PDSPers: Perceived Personal Discrimination Scale; MSPSS: Multidimensional Scale of Perceived Social Support; B: coefficient of regression; β: standardized coefficient of regression; SE: Standard error, CI: confidence interval; p < 0.05 values are shown in bold

DISCUSSION

It was established that in individuals with gender dysphoria, there is positive correlation between psychological resilience and peer support. In the only previous study evaluating psychological resilience with a scale, psychological resilience assessed with Brief Psychological Resilience Scale was shown to be associated with the frequency of interaction with LGBT peers (Bariola et al. 2015). The common finding of two studies investigating psychological resilience with qualitative methods indicates the importance of being in a supportive environment and especially participating in social activism in psychological resilience (Singh et al. 2011, Singh and McKleroy 2011). Similarly, the findings of the present study indicate that peer support is a strong predictor of psychological resilience in individuals with gender dysphoria.

Social support has been proposed to have a positive influence on the capacity of coping with stress and it was suggested to serve as a buffer against the negative impact of stigmatization and dsicrimination (Cohen and McKay 1984, DeLongis and Holtzman 2005). Especially in sexual minority groups in which the need for concealment of the identity is strongly felt, the perceived level of social support may differ from actual support level. It has been proposed that the effect of the quality of social resources and perceived support level on psychological resilience is significant in sexual minority groups (Hatzenbuehler 2009). There is some evidence that social support is associated with psychological well-being in transgender individuals (Erich et al. 2008, Simons et al. 2013). However, it was shown that total perceived social support was lower in individuals with gender dysphoria than that in controls matched for age and gender and peer support was a strong predictor of satisfaction with life and quality of life (Davey et al. 2014).

In the present study, the association between perceived support from family, friends, and significant other and psychological resilience was shown. Due to the overlap between the constructs, it could be expected that family cohesion subscale of RSA to have a strong correlation with family support, and social resources subscale with peer support. However, it was found that perceived support from these two sources are not only associated with these subscales of psychological resilience. Particularly peer support was found to be associated with all subscales of psyschological resilience. In logistic regression model, in which the association of social support with psychological resilience along with other variables was evaluated, peer support still remained significant. In sexual minority groups, there is a fundamental difference in the relationship of the individuals with their families from other discriminated groups. Unlike other stigmatized identity features such as race, ethnic origin, and religion, gender identity is not a feature common to both the individual and the family. On the contrary, for a large majority of individuals with gender dysphoria in Turkey, the anticipated and actual reaction of the family to identity disclosure is a pscyhologically challenging experience (Polat et al. 2005, Kaptan 2010, Turan et al. 2015). Although these findings do not diminish the significance of family support, support received from a group of individuals accepting the individuals as they are, termed as ‘chosen family' by some authors, may become prominent in sexual minority groups (Davey et al. 2014).

In studies evaluating psychological resilience in terms of psychological symptom level and the presence of mental disorders, it was reported that high social support was associated with low levels of depression, anxiety, and suicidal behavior in transgender individuals (Budge et al. 2013, Bockting et al. 2013, Moody and Smith 2013). In a multicenter study, it was found that in adolescents with gender dysphoria, weak peer relations predicted behavioral and emotional problems (de Vries et al. 2016). Although there are differences among studies with regard to the contribution of sources of social support, these findings suggest that support from family and friends contribute to psychological resilience, and play a protective role against psychological symptoms and behavioral problems.

In the present study, psychological resilience was found to be weaker in those with past or current mental disorder and

history of suicide attempt. Furthermore, resilience score had an inverse correlation with depression symptom level. These findings support the discriminating power of the assessment of resilience with RSA. However, it is possible for the current mood of the individual to influence evaluation about oneself, environment, and the world in self-report scales. Therefore, the presence of subjects who currently suffer from mental disorders in the cohort may have led the evaluation to be biased. However, association between psychological resilience and history of mental disorder and suicidal behavior may be considered an evidence of the increased risk of psychopathology in a group with low resilience. The prevalence of lifetime and current mental disorder (59.5% and 27.6%, respectively), suicide attempt, and self-injurious behavior was found to be high in the sample of the present study. High rates established are compatible with the findings of previous studies (Budge et al. 2013, Bockting et al. 2013, Nuttbrock et al. 2014, Heylens et al. 2014).

Studies on long-term effects of gender transition suggested that sex reassignment had positive effects on psychological well-being and general level of functioning (Johansson et al. 2010, Ruppin and Pfafflin 2015). It has been shown that quality of life, which is another indicator of psychological well-being, improves in transgender individuals through gender transition process, especially with hormone treatment (Murad et al. 2010). Majority of the participants of the present study has not initiated medical procedures for sex reassignment such as cross-sex hormone use or surgical interventions. However, social transition characteristics were shown to be associated with the presence of mental disorders and severity of depressive symptoms. Elucidation of the association between social transition and prevalence of psychiatric disorder requires follow-up studies in larger samples. Nevertheless, present findings indicated better psychological resilience in individuals with gender dysphoria that had disclosed their gender identity, accomplished social transition, and those that used hormones. The cross-sectional design of the present study limited the establishment of causality relation. The findings can be interpreted in two ways; either those with higher psychological resilence proceeded in social transition or psychological resilience, as a dynamic structure, could be improved through social transition. These probabilities should be evaluated with follow-up studies.

The sample of the present study was limited to individuals with gender dysphoria that attended a psychiatry clinic, and with the majority demanding the initiation of medical processes for gender transition. In those who lack the psychological, personal, and social resources for initiating gender transition processes, the prevalence of mental disorders may be higher. This should be investigated with samples including non-clinical samples, which could be selected from a community population. Likewise, the possibility of some of the participants to have the tendency to conceal their previous and current psychological symptoms during the interviews and self-report scales is another factor that may lead to bias and constitutes a limitation of the study. In conclusion, the findings of the present study point to the prevalence and importance of psychiatric symptoms and disorders accompanying gender dysphoria in Turkey.

The majority of participants stated that they were individually subjected to discrimination. In many domains, it was shown that the level of psychological resilience differed in groups with different severity of perceived discrimination. Discrimination is associated with different, frequently worse, attitude towards the members of a stigmatized group, which are considered just and valid with the sole basis of their membership to the group (Dovidio et al. 2010). Discrimination may be reflected in interpersonal relations as well as being structural, involving institutions and social regulations. The attribution of actual events to discrimination by the individual is related to both the quality and context of the event, but it also relies on and personal characteristics such as cognitive processing of the event and emotional reactions (Major and Sawyer 2009). Hence, it is possible for people experiencing identical events to perceive discrimination at varying levels. Experiences of the individual and inferences made from the experiences of other people in the group he/she identifies with may contribute further to anticipation of discrimination, which in itself is a source of stress (Hatzenbuehler 2009, Dovidio et al. 2010). In addition, an individual may experience discrimination without directly being involved in a traumatic event, through being excluded and left outside, not being accepted and feeling that the others are against him/her. Discrimination may also have negative influences on the individual through self-stigmatization, where the individual internalizes negative stereotypes and attitudes in the society (Herek and Garnets 2007).

In the present study, discrimination experiences of the participants were not evaluated based upon single identified events. This approach was not preferred, since discrimination based on gender identity involves wide range of experiences with high interindividual varibility, but pervades almost all domains of life. Psychological resilience can also be evaluated through the assessment of psychological responses to single events (Tedeschi and Calhoun 1996, Connor and Davidson 2003, Smith et al. 2008). With larger samples, it is possible to investigate the response to certain discriminatory experiences cross sectionally or longitudinally. In a recent longitudinal study on trans women, it was established that physical or psychological abuse occurring during follow-up increased the risk of development of depression by 4-6 fold (Nuttbrock et al. 2014). In addition, experienced and perceived dimensions of discrimination may have distinct relationship with psychological resilience. It was previously shown that perceived and experienced dimensions of discrimination have independent effects on psychological stress level (Bockting et al. 2013).

Therefore, it is a limitation of the present study that discrimination experiences were not questioned. Psychological resilience is considered as a dynamic structure developing within the interaction between the characteristics of the individual, and the environment, and the challenges confronted. Various factors, including discriminatory experiences, are likely to affect resilience favorably or unfavorably. The fact that the present study is cross sectional makes it impossible to establish causal relations regarding these interactions.

When multiple factors were evaluated together, age was revealed to be a protective factor against the development of depression in gender dysphoria (Bockting et al. 2013). Increase in resilience with age in transgender individuals was proposed in previous studies (Nuttbrock et al. 2010, Institute of Medicine 2011). In the present study, correlation between age and psychological resilience was shown. However, in regression analyis incorporating other variables as well, the relation with age lost its significance, while the perceived level of discrimination against individual was found to be related to low psychological resilience.

With regard to the association between perceived discrimination and psychological resilience, perceived personal and group disrimination differed. While the perceived personal discrimination was associated with total and subscale scores of psychological resilience scale, no such relation could be demonstrated for the perceived group discrimination. The difference between the effects of discrimination against individual and that against group on psychological health indices was previously reported (Turner 1999, McGarrity et al. 2013). This is attributed to higher self-esteem developed through the process of belonging to a group and comparing oneself with other group members instead of community at large (Turner 1999, Schmitt ve Branscombe 2002). In order to clarify the association between different dimensions of discrimination and resilience, studies evaluating internalized stigmatization, experienced discrimination and the level of identification with the group are warranted.

In conclusion, this study emphasizes the importance of addressing perceived discrimination and probable mental consequences in individuals with gender dysphoria by mental health professionals. The struggle against discrimination, which influences a sizable proportion of individuals in the community, should be executed at the society level. However, it has been recognized that adverse effets of stress associated with discrimination against individual may vary and some factors may even have protective effects. Findings of the present study demonstrate that high level of social support especially from peers is associated with better psychological resilience and be influential in the response to stress associated with present or anticipated discrimination. Mental health professionals should encourage individuals with gender dysphoria in developing strategies aiming to increase their social support, which may be important for the prevention and treatment of psychiatric disorders. Considering the association between high level of resilience and continuing work and education, clinicians should encourage, support, and empower the clients for pursuing education, developing peer relations, disclosing themselves to individuals who are probably non-discriminating, and participating in work life irrespective of discriminative actions. Efficiency of methods of assistance employed by mental health professionals with this perspective should be evaluated by follow-up studies.

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