ORIGINAL ARTICLE

Using the Defensive Style Questionnaire to evaluate the impact of sex reassignment surgery on defensive mechanisms in transsexual patients

Aplicação do Defensive Style Questionnaire para avaliar o impacto da cirurgia de redesignação sexual nos mecanismos de defesa de pacientes transexuais

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Abstract

Objective: *To evaluate the impact of sex reassignment surgery on the defense mechanisms of 32 transsexual patients at two different points in time using the Defensive Style Questionnaire.* ***Method:*** *The Defensive Style Questionnaire was applied to 32 patients upon their admission to the Gender Identity Disorder Program, and 12 months after they had undergone sex reassignment surgery.* ***Results*****:** *There were changes in two defense mechanisms: anticipation and idealization. However, no significant differences were observed in terms of the mature, neurotic and immature categories.* ***Discussion:*** *One possible explanation for this result is the fact that the procedure does not resolve gender dysphoria, which is a core symptom in such patients. Another aspect is related to the early onset of the gender identity disorder, which determines a more regressive defensive structure in these patients.* ***Conclusion:*** *Sex reassignment surgery did not improve the defensive profile as measured by the Defensive Style Questionnaire.*

Descriptors: *Defense mechanisms; Surgery; Transsexualism; Gender identity; Questionnaires*

Resumo

Objetivo: *Avaliar o efeito da cirurgia de redesignação sexual nos mecanismos de defesa de 32 pacientes transexuais em dois momentos distintos usando o* Defensive Style Questionnaire. ***Método:*** *O* Defensive Style Questionnaire *foi aplicado a 32 pacientes quando ingressaram no Programa de Transtorno de Identidade de Gênero e 12 meses após a cirurgia de redesignação sexual.* ***Resultados:*** *Houve modificações em dois mecanismos de defesa: antecipação e idealização; porém, sem mudanças significativas nos fatores maduro, neurótico e imaturo.* ***Discussão:*** *Uma possibilidade para esse resultado é o fato de a intervenção cirúrgica não resolver a disforia de gênero (principal sintoma desses pacientes). Outro aspecto está relacionado com o fato de o transtorno de identidade de gênero ser instalado precocemente, o que determina uma estrutura defensiva mais regressiva para esses pacientes.* ***Conclusão:*** *A cirurgia de redesignação sexual não foi capaz de modificar o padrão dos mecanismos de defesa medidos pelo* Defensive Style Questionnaire.

Descritores: *Mecanismos de defesa; Cirurgia; Transexualismo; Identidade de gênero; Questionários*

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Introduction

Transsexualism (ICD-10)[1]/Gender Identity Disorder (DSM-IV-TR)[2] is characterized by a strong and persistent cross-gender identification that affects different aspects of behavior. In a subgroup of patients, it leads to the pursuit of medical treatment to modify primary and secondary sex characteristics by means of, for example, hormone therapy, vaginoplasty or phalloplasty.[3-6]

For eight years, the Gender Identity Disorder/Transsexualism Program (PROTIG) of the Hospital de Clínicas de Porto Alegre, Universidade Federal do Rio Grande do Sul (UFRGS), Brazil, has been providing public assistance to transsexual patients.[3,4] The program offers patients psychosocial support, medical assistance and family guidance, and refers patients to sex reassignment surgery when indicated.

The psychological impact of this condition is usually underestimated both in terms of the understanding of its effects on the personality of each individual, as well as in terms of its association with high rates of psychiatric comorbidities.[7]

Psychological defense mechanisms (PDM) are indicators of how individuals usually deal with their conflicts and provide parameters to understand how personality is organized. According to the DSM-IV-TR, a defense is an automatic psychological process that protects the individual against anxiety, internal or external dangers, or stressors. PDM are hierarchically classified into three defense levels, in accordance with psychodynamic theory and according to maturity level: mature, neurotic, and immature.[8-10] In this study, PDM were evaluated using the Brazilian Portuguese version of the Defensive Style Questionnaire (DSQ), a self-report questionnaire featuring 40 questions and which was previously validated by Blaya et al.[11-15]

Our literature search on Medline using the terms "defense mechanism", "transsexualism", and "gender identity disorder" did not yield any studies on defense mechanisms to evaluate transsexual patients using the DSQ. Moreover, the diagnosis and management of personality disorders during preoperative counseling of transsexual patients has prognostic importance. Therefore, the purpose of this study was to evaluate the effect of surgical interventions on the defense mechanisms of 32 patients at two time points, i.e., admission into the PROTIG program and one year after sex reassignment surgery.

Method

This open clinical trial was conducted by applying the DSQ to patients at two time points: T0- when they joined the Gender Identity Disorder Program (PROTIG); and T1- 12 months after sex reassignment surgery (SRS). Individuals with psychotic disorders, mental retardation, substance dependence or younger than 21 years of age are not admitted into the PROTIG program. Those who are admitted are required to participate in supportive group therapy sessions lasting one hour and held on a weekly or biweekly basis for at least two years. During these sessions, which are conducted by a psychiatrist and a social worker, questions about SRS and issues revolving around their day-to-day lives such as interpersonal relationships, employment and discrimination are addressed. Each group is comprised of about 14 patients, all of whom with a diagnosis of transsexualism; their primary diagnoses, possible comorbidities and psychosocial status are regularly reevaluated. When necessary, patients are referred to individual psychotherapy.[3,4]

The DSQ evaluates 20 defense mechanisms that are divided into three categories: mature, neurotic and immature. Each item is evaluated using a 10-point Likert-like scale (from 1 to 9). Individual defense scores are calculated as the mean between the two items corresponding to each defense mechanism, and the scores for each category are calculated as the mean between all scores of the defense mechanisms belonging to that category.

The questionnaire was answered by 32 patients enrolled in the PROTIG program who agreed to participate in the study, signed an informed consent term and met the inclusion criteria set by the PROTIG mental health team i.e., diagnosis of transsexualism (ICD-10)/gender identity disorder (DSM-IV-TR) and minimum age of 16 years.

PROTIG provides care to 154 patients. By the time this report was written, 48 SRS had been performed. Two patients refused to participate in the study and 14 were lost to follow-up.

Demographic and defense profile variables were described as means and standard deviations. The SPS 12.0 software was used for statistical analysis and the Student's T-Test was employed for comparison purposes.

The study was approved by the Ethics Committee of the of Hospital de Clínicas de Porto Alegre (98-319).

Results

Table 1 describes the characteristics of patients in the sample (n = 32). The age range of the 32 patients included in the study varied between 16 to 54 years and all patients were male-to-female transsexuals. The age at which cross-gender play started ranged from 2 to 8 years (mean = 5.46 years), and cross-dressing from 8 to 26 years (mean = 15.61 years). The age at which hormone therapy was initiated ranged from 11 to 42 years, and the age at which patients had their first sexual intercourse ranged from 8 to 26 years. Table 2 shows results obtained from the DSQ.

The comparison between study participants and those who refused to participate at T0 did not reveal any significant differences; therefore, there was no internal validity problem.

Statistically significant differences were found for two mechanisms after SRS: anticipation ($p = 0.006$) and idealization ($p = 0.05$). No significant differences were found for the three categories: mature defenses ($p = 0.184$), neurotic defenses ($p = 0.264$) and immature defenses ($p = 0.945$).

Discussion

Previous studies using the DSQ have shown that, in the presence of axis I disorders, the functioning pattern is associated with immature defenses. Following the clinical improvement of these conditions, a change in defense style into more neurotic or mature defenses has been observed.[16-19]

Table 1 - Descriptive statistics

	n	Minimum	Maximum	Mean	SD
Age	32	16	54	31.66	10.082
Age – cross-gender play	13	2	8	5.46	1.664
Age – cross-dressing	31	8	26	15.61	5.090
Age – hormone therapy	32	11	42	18.97	6.528
Age – 1st sexual relation	29	8	26	15.62	3.868

Table 2 - Test statistics

Defense mechanism	Before	After	p-value
Sublimation	6.11 ± 2.15	5.42 ± 1.99	0.131
Humor	6.19 ± 2.34	6.05 ± 2.45	0.744
Anticipation	6.83 ± 1.90	5.81 ± 2.03	0.003
Rationalization	5.921 ± 1.81	5.32 ± 1.35	0.203
Suppression	5.44 ± 2.06	5.56 ± 2.05	0.787
Mature defenses	5.99 ± 1.23	5.69 ± 1.00	0.327
Undoing	4.97 ± 2.23	4.94 ± 2.41	0.950
Pseudoaltruism	5.92 ± 2.11	5.70 ± 2.01	0.632
Idealization	4.48 ± 2.43	3.67 ± 2.16	0.053
Reaction formation	5.17 ± 2.44	4.59 ± 2.22	0.306
Neurotic defenses	5.137 ± 1.57	4.73 ± 1.55	0.182
Projection	2.78 ± 2.49	2.39 ± 1.82	0.449
Passive aggression	2.33 ± 1.74	2.31 ± 1.32	0.968
Acting out	3.39 ± 2.20	3.98 ± 2.19	0.105
Isolation	3.31 ± 2.17	3.59 ± 2.20	0.519
Devaluation	4.61 ± 2.05	4.31 ± 1.90	0.474
Autistic fantasy	3.44 ± 2.61	3.08 ± 2.34	0.530
Denial	3.94 ± 2.69	3.94 ± 1.95	1.000
Displacement	2.86 ± 1.92	3.12 ± 2.13	0.465
Dissociation	3.81 ± 2.00	3.08 ± 1.83	0.082
Splitting	4.94 ± 2.06	5.06 ± 2.17	0.719
Somatization	3.94 ± 2.09	3.48 ± 2.19	0.335
Immature defenses	3.58 ± 1.28	3.49 ± 1.15	0.708

The literature and clinical practice show that SRS significantly improves the lives of transsexual patients.[5,20,21] In an attempt to translate this improvement into objective parameters, we employed the DSQ to investigate whether there are changes in the defensive styles of patients following SRS.

In this study, the administration of the DSQ did not reveal changes in defensive style one year after SRS. One possible explanation for this is that despite the clinical improvement and decreased psychological suffering achieved with SRS, the procedure does not resolve gender dysphoria (a core symptom in these patients). Another aspect is related to the early onset of gender identity disorder, which, differently from axis I disorders starting in adult life, leads to a more regressive defensive structure in these patients.

One of the limitations of this study was that a structured axis II diagnosis was not made before inclusion and, therefore, factors such as severe psychiatric comorbidities (personality disorders) could not be evaluated. Personality disorders are common among transsexual patients,[22] who may also show a persistent pattern consisting of immature or neurotic defensive behaviors. Moreover, maybe one year post op is just not long enough for one to witness changes since it is still considered to be a time for adaptation and postoperative recovery.

The size of our sample was similar to that of other studies reporting changes in defense mechanisms in patients with other disorders. Therefore, it seems that our negative results cannot be attributed to a type II error.

Conclusion

Sex reassignment surgery did not improve the defensive profile of transsexual patients as measured by the DSQ.

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Disclosures

Writting group member	Employment	Research grant[1]	Other research grant or medical continuous education[2]	Speaker's honoraria	Ownership interest	Consultant/ Advisory board	Other[3]
Maria Inês Lobato	HCPA	-	-	-	-	-	-
Walter José Koff	HCPA UFRGS	-	-	-	-	-	-
Tiago Crestana	HCPA	-	-	-	-	-	-
Camila Chaves	HCPA	-	-	-	-	-	-
Jaqueline Salvador	HCPA	-	-	-	-	-	-
Analídia Rodolpho Petry	HCPA	-	-	-	-	-	-
Esalba Silveira	HCPA	-	-	-	-	-	-
Alexandre Annes Henriques	HCPA	-	-	-	-	-	-
Fábio Cervo	HCPA	-	-	-	-	-	-
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** Modest*
*** Significant*
**** Significant. Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.*
Note: HCPA = Hospital de Clínicas de Porto Alegre; UFRGS = Universidade Federal do Rio Grande do Sul.
For more information, see Instructions for authors.

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