

## The Contribution of Forensic Psychodiagnostic in Legal Medical Evaluations Regarding the Amendment of Sex Assignment: The Rorschach Test

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### Abstract

**Aim:** In previous studies, other authors have proposed the Gender Identity Disorder as a subtype of Borderline Personality Disorder. Our research hypothesis expected that the Primary transsexuals (TSS) group would show statistically significant differences in psychological scoring as compared to the TSP group, especially in the areas of object relations and reality testing.

The aim of this study is to evaluate if the clinically observed differences between the TSPs and the TSSs are psychometrically measurable using the Exner CS Rorschach.

**Materials and methods:** 47 subjects with the diagnosis of Gender Identity Disorder were classified as either primary (TSP) or secondary (TSS) transsexuals according to the criteria put forth by H. Benjamin.

**Results:** The results have demonstrated that TSSs appear to be more vulnerable in the area of stress control and showed greater difficulty in adaptation, along with a higher tendency toward disorganization, impulsivity, and behavioral disorders with respect to TSPs. TSSs suffered much more from states of situational and chronic stress with alterations in the stream of voluntary thought. Analysis of the ideational section of the test reveals a higher frequency of thought disorders in the TSS group, in particular, cognitive mismanagement, ideational disorganization, pessimistic thought, and a higher tendency toward aggression. The quality of interpersonal relationships of TSSs is qualitatively lower and less adaptive, and a greater tendency toward establishing relationships connoted by dependence is more evident.

**Conclusions:** It would therefore seem that classification, according to Benjamin's criteria, could prove useful both in clinical and research settings. Moreover, the Rorschach Test appears to be a valid psychometric instrument in assisting the clinician in the differential diagnosis and evaluation of the suitability of patients for sex reassignment surgery (SRS).

**Keywords:** Transsexualism; Gender identity disorder; Psychodiagnosis; Rorschach; Sex reassignment surgery

### Introduction

Gender Identity Disorder (GID) is very rare and consists principally of a strong and persistent identification with the opposite sex and a marked aversion to one's own biological sex. The feeling of belonging to the other sex involves, among other things, aspects related to self-perception, body image, interpersonal relationships, coping mechanisms, and social adjustment. Epidemiological data indicate a higher frequency of GID in men than in women; one male adult in 30,000, and one adult female in 100,000 requests a sex change [1].

The DSM-IV sets out the following four criteria for the diagnosis of GID: 1) A strong and persistent identification with the opposite sex (not only a desire for some presumed cultural advantage resulting from belonging to the opposite sex) which manifests along with symptoms such as the declared desire to be the other sex, often passing oneself off as the other sex; the desire to live as, or to be treated as the

opposite sex; the acknowledgement of having feelings or reactions typical of the opposite sex; 2) Persistent uneasiness, or a feeling of foreignness related to the sexual role of one's own sex which manifests with the preoccupation of ridding oneself of one's primary or secondary sexual characteristics (e.g. requesting hormones, surgical interventions, or other procedures to physically alter one's sexual characteristics in such a way as to take on the appearance of the opposite sex; or the conviction of having been born in the wrong body; 3) Absence of an accompanying physical intersex condition; 4) Significant clinical discomfort or impairment in the social or occupational environment, or in any other important areas of psychosocial functioning caused by such a condition [1].

GID must be distinguished from other conditions such as: 1) behaviors that do not correspond to parameters considered to be culturally typical of that gender; 2) transvestite fetishism, which results from fantasies, sexual impulses, or repeated and intensely sexually exciting behaviors derived from dressing oneself in clothes which are typical of the opposite sex; 3) NOS conditions (Not otherwise specified), such as fantasies of penectomy without the desire for

surgical sex reassignment; 4) Psychopathologies, such as schizophrenia, or other conditions which fall into the realm of gender dysphoria.

Harry Benjamin criticized the diagnostic criteria of the DSM because they would not allow for an adequate diagnosis of transsexualism, thereby increasing the range of indications for sex reassignment surgery (SRS), so as to include individuals who were not suitable candidates. In his view, the DSM neglected some fundamental requirements, such as the type and quality of interpersonal relationships and social integration. In order to make a differential diagnosis of GID, Benjamin proposed some added criteria to those of the DSM-IV which would allow for the discrimination between primary (TSP) and secondary (TSS) transsexualism. TSP satisfies the eligibility criteria for surgical sex-change intervention and is characterized by the following: 1) DSM-IV diagnosis of GID; 2) Early onset of identification with the opposite sex during childhood; 3) Marked behaviors typical of the opposite sex during childhood; 4) Expressed request for SRS in early adolescence; 5) Clear-cut homosexual orientation (with respect to biological sex); 6) low sexual arousal during cross-dressing. TSS, on the other hand, does not satisfy the eligibility criteria for sex reassignment surgery and is characterized by: 1) DSM-IV diagnosis of GID; 2) Delayed onset in late adolescence or adulthood; 3) Moderate or absent behaviors typical of the opposite sex during childhood 4) Request for SRS in late adolescence or adulthood; 5) Heterosexual orientation (with respect to biological sex, or bisexual orientation; 6) Moderate sexual arousal during cross-dressing [2-8].

The diagnosis of GID is rendered even more complex due to the absence of a specific test which evaluates its presence. In fact, staff members who work in centers that deal with this disorder make use of a battery of tests with which they are able to obtain a psychometric and psychodynamic evaluation, ruling out psychotic pathologies, thus resulting in a more accurate picture of the patient's personality. From a review of the literature, it can be inferred that the most widely used tests are the clinical scales (SCL-90), and personality tests (MMPI, Rorschach, TAT, DAP).

Lothstein analyzed the results of 41 experimental studies on transsexualism published between 1975 and 1983. In particular, the author studied the results of the psychological tests utilized, concurring with other authors that transsexualism could be a variant or subtype of Borderline Personality Disorder. He had, in fact, shown that transsexuals, just as borderline subjects, were free of significant pathologies both in clinical interviews as well as in objective tests, but exhibited severe psychopathology if evaluated using projective tests. The author identified some characteristics, assessable through tests, which could be useful not only in the differential diagnosis of the two pathologies, but also in determining the patient's ego strengths and weaknesses, and his or her potential for engaging in psychotherapy. Some of these characteristics are as follows: deficits in symbol formation; lack of integration of the identity; developmental arrests, and impairment of ego functions; Use of primitive defense mechanisms; Sadomasochistic object relations organization; Impairment of core gender identity; Inadequate self-object differentiation; Inability to establish an adequate representation of one's own gender, of the object, and of constancy in self-perception. Lothstein, considered it important to evaluate the interaction between the primitive psychological defenses and impulses (particularly aggression) that might alter the formation of gender identity. Volkan maintained that many transsexuals were afraid of their aggressive

impulses and sought out surgical interventions as a means of liberating themselves from their aggression [9-18].

Various studies have confirmed Lothstein's findings, and in many studies using control samples, it has been found that transsexuals presented with problems related to reality testing and cognitive mediation when evaluated utilizing the Rorschach Test.

Mormont et al., compared a group of transsexuals with a sample of homosexual subjects and non-patients. It emerged from the study that the transsexuals exhibited problems related to cognitive mediation (X-%, S-%) and to ideation (SCZI e Sum6 (DR, DR2 and ALOG)) [12,13].

Cohen evaluated a group of transsexuals against a sample of psychiatric patients and non-patients, observing that the transsexuals had higher intermediate scores for inaccurate perception with respect to the other two groups (FQ-%), while they were similar to the non-patients in thought disorders and self-image (WSum6, M-, MOR) [4].

From the study by Caron, it was found that transsexuals, when compared to a sample of schizophrenic patients with personality disorders and non-patients, had very similar results to patients with personality disorders (i.e. impulse control, reality testing, cognitive disorders, self-esteem, affective modulation, and interpersonal relationships) [3].

Murray, having hypothesized that transsexuals would present with a borderline personality structure, defined by Kernberg's criteria, used the Rorschach Test to validate this concept. He compared a group of transsexual subjects with borderline personality disorder and a group of students, analyzing aggressive variables (Holt System Aggressive Content Section), object relations (MOA), reality testing (X+%), and self-object differentiation (Exner System Special Scorings) [14].

It was highlighted by the study that the transsexuals presented with an equal number of aggressive contents, deficits in object relations and reality testing, as well as psychopathological indices when compared to the borderline subjects. Both groups were significantly different from the group of students in all variables considered. The author therefore concluded that GID could be considered a subgroup of the diagnostic category of Borderline Personality Disorder. Tuber and Coats compared a group of subjects with GID to a group of non-patients [16]. The hypothesis of the study predicted that the transsexuals would present with a qualitative deficit in their object representations, a higher rate of disordered thinking, and malevolent and "overwhelming" object representation, and that their overall level of object relations would be more primitive with respect to the control group. The authors analyzed the Special Scores of Confabulation and the MOA from the Rorschach CS. It was observed from the results of the study that the transsexuals had significantly higher Special Scores of Confabulation, and higher MOA scores. The authors maintained, therefore, that the subjects with GID also presented with other types of disorders of functioning of the self, beyond the symptomology strictly associated with Gender Identity Disorder.

Mormont., analyzing the psychological functioning of candidates for SRS, observed that they frequently used defense mechanisms which allowed them to look for refuge in passivity and in fantasy in order to avoid unpleasant situations, responsibility, and decision making. Such unconscious processing was identified by Exner, as "The Snow White Syndrome". The author explained the presence of this syndrome as a situational defense triggered by the dependence on the decision of a third party (doctor, psychologist, surgeon, etc.) regarding the surgery.

Mormont had in fact noticed that following SRS, the syndrome was no longer detectable [6,13].

Some authors have tried to empirically verify the validity of differentiation between TSPs and TSSs, or similar constructs, such as, for example, predictive personality criteria regarding the request for SRS. Few studies, involving small samples have been carried out, and the subjects have been evaluated with tests other than the Rorschach.

Haraldsen and Dahl., for example, using the SCL-90, compared a group of transsexuals eligible for the surgery to patients with personality disorder, and a group of non-patients. The results highlighted that transsexuals obtained scores significantly lower with respect to patients with personality disorder in all sub-scales, and on the Global Symptom Index. The non-patients' scores were slightly higher but fell within the normative range [8].

Miach., administered the MMPI-2 to a group of subjects with Gender Identity Disorder and a sample of GIDAANT (Gender Identity Disorder of Adolescence or Adulthood, Non-Transsexual Type) subjects. 85 % of the transsexual group exhibited subclinical symptomatology, whereas 47% of the GIDAANT subjects suffered from severe psychopathological disorders. Neither the MMPI results, nor clinical evaluation using the DSM-III-R supported the conclusion of various authors that transsexualism was associated with personality disorders. Rather, the data indicate that transsexuals differed significantly with respect to subjects affected by other types of gender identity disorders without the persistent desire to change sex, because the latter presented with psychiatric comorbidity [11].

Greenburg and Laurence., compared the MMPI scores of a group of male to female (MtF) transsexuals who consistently took on the appearance and role of females to a sample of MtF transsexuals who maintained a predominantly male appearance, and a group of outpatient and in-patient psychiatric patients. Results showed that the transsexuals who had regularly assumed the role of female were free from psychopathologies. Conversely, however, the transsexuals who continued to assume the appearance and role of males appeared to be just as dysfunctional as the psychiatric patients, exhibiting significantly higher scores on the D, Pd, Pt and Sc Scales [7].

## Materials and Methods

The authors of this study have analyzed the Exner CS Rorschach protocols on a group of transsexuals who were followed continuously for a period of two years by l'Istituto di Psichiatria, la Sezione di Criminologia Clinica, and Psichiatria Forense dell' Università di Bari, Italy.

The aim of this work was to evaluate whether the differences found between primary transsexuals (TSP) and secondary transsexuals (TSS) would be psychometrically measureable by making use of some other, experimental scales not introduced into Exner's Comprehensive System (CS).

Our research hypothesis expected that the patients diagnosed as TSS, based on the criteria set forth by Harry Benjamin, would be more pathological with respect to the TSPs, would present with object relation disorders, and would also have personality characteristics similar to that of the control group made up of borderline patients examined in other studies.

A diagnosis of GID, based on the criteria provided for in the DSM-IV, was made by having the subjects undergo psychometric evaluation, including clinical scales (SCL-90, TAS-20, STAI), the Personality Test (MMPI-2), and psychiatric counseling.

The subjects were further assessed as either TSP or TSS according to Benjamin's criteria based on weekly psychotherapeutic interviews carried out over a period of 2 years.

## Methods

The Rorschach Test was administered and interpreted according to Exner's Comprehensive System (CS) [6]. The CS is currently the most widespread interpretation system for the Rorschach Test on the International level as well as the most empirically validated one based on its psychometric standardization characteristics: uniformity of administration, high inter-scorer agreement with respect to coding ( $k \geq 0.80$ ), high test-retest reliability ( $0.75 < r < 0.90$ ), high construct validity, and high predictive validity [5,6,15].

The protocols were further coded using Urist's Mutuality of Autonomy Scale (MOA) (17) and also with the Rorschach Oral Dependency Scale (ROD) Masling [10].

The MOA scale is based on an evolutive model which defines several levels of interpersonal relationships based on the individual's sense of autonomy and the ability to establish reciprocal relationships. By interpreting the protocol using the MOA, various types of indices are obtained which define the type of object relations in a detailed manner: MOA-R (number of responses which imply a relationship), MOA-Sum (Sum of MOA scores; the higher the score, the lower the quality of the relationships), MOA-M (average of MOA scores; the higher the score, the lower the quality of the relationships). The literature has shown it to be a good predictor of negative interpersonal relationships), MOA-L (corresponds to the lowest MOA scores, and therefore more adaptive), MOA-H (identifies the highest MOA scores, and therefore the least adaptive. It is a good predictor for negative interpersonal relationships), *MOA-PATH* (sum of scores in categories 5 and 7 of the protocol; the higher the sum, the lower the quality of interpersonal relationships).

The ROD scale evaluates interpersonal dependence, assigning a score to responses with passive and dependent oral content.

The values of the Rorschach CS indices were calculated as percentages with the aim of controlling for the multitude of responses that are clearly not a fixed denominator of the Rorschach.

## Results

The sample was comprised of 47 patients, 33 of whom were TSP and 14 TSS. The average age was  $24.5 \pm 4.2$  years, with an average school attendance of  $11.8 \pm 2.8$  years. The two samples were homogenous with respect to age and schooling. The FtM subjects represented 14% of the TSS sample, and 33% of the TSP sample. Statistical analysis of the data was carried out using the non-parametric test by Mann-Whitney due to the fact that the variables analyzed did not have a normal distribution. Only statistically significant variables have been reported in Table 1.

Code	Variable	p	Media TSP	Media TSS
D	Stress control	0.015	-0.06 ± 0.52	-0.86 ± 0.86
es	Perceived situational stress	0.013	4.7 ± 3.32	8.07 ± 3.24
Adj.es	Perceived chronic stress	0.015	4.09 ± 2.77	6.71 ± 2.25
FM+m	Mental activity that is not in the conscious focus of attention	0.006	1.88 ± 1.34	3.93 ± 1.93
SumY	Situational anxiety	0.016	0.7 ± 1.01	1.5 ± 1.07
AG	Agressive tendencies	0.022	0.09 ± 0.29	0.71 ± 1.27
MOR	Pessimistic thought	0.007	0.73 ± 0.93	1.86 ± 1.41
Sum6	Disordered thinking	0.024	2 ± 2.12	3.93 ± 2.21
WSum6	Disordered thinking	0.037	6.3 ± 7.07	12.79 ± 9.58
DV	Cognitive mismanagement (i.e. distorted language)	0.01	0.18 ± 0.31	0.71 ± 0.71
CTM	Ideational disorganization	0.007	0 ± 0	0.29 ± 0.45
ROD	Dependent interpersonal relationships	0.035	0.1 ± 0.05	0.09 ± 0.06
MOAR	Responses which imply relationship	0.043	2.33 ± 2.2	4 ± 2.66
MOASum	Quality of interpersonal relationships	0.021	5.94 ± 5.95	13.86 ± 11.39
MOAM	Quality of interpersonal relationships	0.015	1.89 ± 1.48	3.18 ± 1.39
MOAL	Adaptive interpersonal relationships	0.021	1.24 ± 1.15	2.14 ± 1.51
MOAH	Adaptive interpersonal relationships	0.03	2.73 ± 2.13	4.14 ± 1.83
MOAPath	Quality of interpersonal relationships	0.002	0.24 ± 0.6	1.57 ± 1.79

**Table 1:** Statistically significant Rorschach TSP vs. TSS variables

The statistically different variables yielded from the two samples may essentially be regrouped into the following categories: Indices relative to psychological resources which allow coping with, and managing stress (D), Perceived level of stress (es, Adj.es, FM+m, Sum Y), Aggressive tendencies (AG), Pessimistic thought (MOR), Disordered thinking (Sum6, Wsum6), Cognitive mismanagement (DV), Presence of ideational disorganization (CTM), Dependent interpersonal relationships (ROD), Object relation characteristics (MOAR, MOASum, MOAM, MOAL, MOAH, MOAPath).

## Discussion

The results of this study highlight the differences between primary and secondary transsexuals who are not only clinically identifiable, but also psychometrically when evaluated using the Exner CS Rorschach

The sample of TSS subjects, when compared to the TSPs, had more difficulty controlling stress and had less adaptive ability, ideational disorganization, impulsivity, behavioral disorders (D); TSSs also suffer more from states of situational and chronic distress, with alterations in the stream of voluntary thought (es, Adj.es, FM+m, Sum Y). Analysis of the ideational section of the test reveals a higher frequency of thought disorders in the TSSs (Sum6, Wsum6), in particular cognitive management (DV), forms of ideational disorganization (CTM), and pessimistic thought (MOR). Interpersonal relationships are

qualitatively worse in TSSs as well as less adaptive (MOA). In addition, a greater tendency toward establishing relationships characterized by dependence (ROD) and aggression (AG) is noticeable.

Comparing the results of this study to those of others, it would seem that a continuum between non-patients, homosexuals, TSPs, TSSs, patients with personality disorders, and psychiatric in-patients, as well as out-patients may be delineated. TSSs are distinguished from the TSPs by the presence of certain characteristics which render them more similar to patients with personality disorders, in particular Borderline Personality Disorder.

The results of this study suggest an opportunity for applying Benjamin's criteria, in addition to those provided for in the DSM-IV, to both the clinical and research arenas. These criteria allow for a more thorough differential diagnosis, rendering judgment on the suitability of a patient to undergo sex reassignment surgery (SRS), as well as the ability to cope with its consequential changes, more reliable. From such a perspective, it appears that the Rorschach Test may be useful in helping the clinician in differential diagnosis, as well as to give a better foundation in the evaluation of a patient's suitability for SRS.

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