
Psychological Functioning of Adolescent Transsexuals: Personality and Psychopathology



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Adolescent transsexuals were compared with adolescent psychiatric outpatients and first-year university students to determine the extent to which other psychopathology is a necessary condition for the development of transsexualism. Three areas of psychological functioning associated with fundamental psychological disturbances—perceptual inaccuracy, disorders of thought and negative self-image—were assessed by means of the Rorschach Comprehensive System. The group of adolescent transsexuals was found to be intermediate between adolescent psychiatric patients and nonpatients for extent of perceptual inaccuracy. They did not differ significantly from nonpatients with regard to thinking disturbances and negative self-image. The psychiatric patients included significantly more individuals characterized by negative self image than the other groups. The results support the idea that major psychopathology is *not* required for the development of transsexualism. © 1997 John Wiley & Sons, Inc.

The persistent sense of discomfort and inappropriateness about one's anatomic sex and the persistent wish to be rid of one's genitals and live as a member of the other sex are considered to be the two essential features of transsexualism (American Psychiatric Association, 1980,

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p. 261). There are two general theoretical positions regarding the psychological functioning of transsexuals. On the one hand, transsexualism is seen as emerging from (other) underlying psychiatric disturbances. According to this idea, transsexuals are confused, disorganized, schizoid, and/or self-destructive individuals (e.g., Beatrice, 1985; Meerlo, 1967; Meyer, 1974, 1982; Person & Ovesey, 1974a, 1974b; Springer, 1981). On the other hand, transsexualism is seen as a phenomenon that can develop independently of (other) psychopathology (Fleming, Jones, & Simons, 1982; Mate-Cole, Freschie & Robin, 1988; Pauly, 1981). Other psychopathology may be secondary, arising as a reaction to the stress associated with accommodating to a cross gender identity (CGI).

The two theoretical positions are associated with two different outlooks on treatment. Those who favor the psychopathological standpoint generally disapprove of sex reassignment surgery (SRS). They maintain that SRS leaves the underlying psychopathological condition untreated and is therefore ultimately not beneficial. Those, however, who favor the non-psychopathology position believe that SRS is a legitimate treatment for transsexuals. Lothstein (1984) reviewed 41 studies (total number of subjects = 699) published between 1953 and 1983 involving the psychological testing of transsexuals. Four conclusions emerged from Lothstein's review:

1. With regard to female-to-male (FM) transsexuals, five studies showed that FM transsexuals were not characterized by significant psychopathology nor by disturbed reality testing. There were, however, reports on psychopathology in FM transsexuals from three $n = 1$ studies.
2. The findings for MF transsexuals from the reviewed studies were more consistent. MF transsexuals showed lower stability and more psychological disturbance than FMs.
3. There was evidence that psychological stability increased in MF transsexuals after the SRS procedure had been initiated.
4. Lothstein suggests that the overall pattern of results from the studies he reviewed pointed to the presence of borderline pathology in transsexualism. For Lothstein borderline pathology refers to pathology distinguished by the presence of a diffuse identity, primitive defenses, an intact reality testing that only becomes impaired in unstructured situations (see Kernberg, 1975).

Lothstein's (1984) suggestion has motivated other researchers to investigate borderline characteristics in transsexuals. For example, Murray (1985) found that transsexuals were more similar to borderlines than to nonpatients in that they showed impaired reality testing, more thought disorders, higher levels of aggression, and more restricted object relations. Other investigators have also described and/or explained transsexualism in terms of borderline characteristics (e.g., Kavanaugh & Volkan, 1978; Meyer, 1982). The idea appears to be that the borderline personality structure is basic to cross-gender identity.

Fleming and Feinbloom (1984), however, have offered an interpretation of some of the findings in keeping with the view that the development of transsexuality is not necessarily rooted in psychopathology. They regard the so-called borderline characteristics of exorbitance and doubts in transsexuals as "part of the conflicts associated with the manifestation of a new physical, social and psychological identity" (p. 747).

To date we know of no empirical studies on the psychological functioning of adolescent transsexuals. Data from adolescent transsexuals can be helpful in clarifying the role of psychopathology in transsexualism. If one assumes that the development of transsexualism requires the presence of (other) psychopathology, degrees and rates of psychopathology in adolescent transsexuals should be comparable to those in adult transsexuals. On the other hand, if trans-

sexualism is not contingent upon psychopathology but sometimes develops in transsexuals as a consequence of having to live with CGI, one could expect young transsexuals to function psychologically more adequately than adult transsexuals (excepting those who have already received SRS). This reasoning is based on the assumption that adolescent transsexuals have suffered less from secondary social and emotional problems than older transsexuals. The principal source of psychopathology in transsexuals is posited to be the persistent stigmatization and lack of understanding encountered by the transsexual in his/her environment.

A number of the studies on personality and psychopathology in relation to transsexualism (e.g., Bash, 1983; Fleming, Jones, & Simons, 1982; Murray, 1985) have made use of the Rorschach test (Rorschach, 1921). Tuber and Coates (1982) have studied Rorschachs of children with gender identity disorder. Most of these children are not expected to develop into transsexuals, however (e.g., Green, 1987). To date we know of only two published studies (Murray, 1985; Fleming, Jones, & Simons, 1982) that have employed (elements of) the *Comprehensive System* (CS) developed for the Rorschach by Exner and his colleagues (Exner, 1990, 1991, 1993; Exner & Weiner, 1982). At the core of the CS is a system for coding responses. The codes have high inter-rater reliabilities (Exner, 1993). Many validity studies have been carried out and provide the basis for the interpretive accuracy of Rorschach CS variables (Exner, 1993).

In the earlier referred to study by Murray (1985) a sample of 25 MF transsexuals was found to be more similar to a sample of 25 male borderlines according to Kernberg's (1975) criteria than to a sample of 18 male nonpatients. Murray (1985) reports that, compared to normals, gender dysphorics and borderlines displayed significantly more intense aggression (aggressive content of the Holt [1977] system), a lower level of object relations (Urist's [1977] Mutuality of Autonomy Scale), poorer reality testing (Exner's X + %) and impaired object differentiation (Exner's Special Scores), but did not differ from each other. The three groups did not differ significantly on the CS Egocentricity Index.

In the second study to make use of the Rorschach CS Fleming et al. (1982) compared Rorschach protocols of 10 MF and 10 FM transsexuals with norms for the general population as reported by Klopfer et al. (1954), Beck et al. (1961), Exner (1978), and Rapaport, Gill, and Schafer (1968). The authors conducted no statistical tests. They observed no obvious clinical differences between the transsexual and general population groups for a number of CS variables (the number of responses, location distribution, human movement, animal movement, inanimate movement, form quality, human contents, and anatomy). They did note, however, that transsexuals displayed more thought disturbances, as measured by fabulized combinations, and less conventionality as measured by the number of populars. The authors concluded that there is a lack of obvious differences between summary statistics for transsexuals and for the general population.

In our study we collected data to help resolve the matter of the extent to which other psychopathology is a required condition for the development of transsexualism. The matter is a question of causality and cannot be answered by a one study assessing the association between transsexualism and psychopathology in a single developmental period (adolescence). As there are many findings of psychopathology in adult transsexuals, however, findings of an absence or lesser incidence of psychopathology in adolescent transsexuals would provide support for the viewpoint that transsexualism is not necessarily an outgrowth of other psychological disturbance.

We employed the Rorschach CS to assess psychological functioning because it is a non-self report method which focuses on structural response elements and may therefore be less subject to influences of conscious steering in responding (Exner, 1991). Furthermore, the Rorschach is considered an excellent instrument for the study of personality structure (Acklin, 1992, 1993, 1994). We focused on three aspects of psychological functioning assessed by the Rorschach: perceptual accuracy, disorders of thought, and self-perception.

PERCEPTUAL ACCURACY

In trying to understand psychological mechanisms underlying the genesis of a transsexual gender identity one thought is that transsexualism is based on a misconstruction of "reality." According to this line of reasoning, CGI involves misperception. There are two possibilities. One is that the hypothesized misperception concerning gender is an isolated case of misperception, that is the perceptual inaccuracy involves only the transsexual's own gender. The second possibility is that the hypothesized misperception is an instance of a general tendency to misperceive or misinterpret reality. There is thus a general tendency to misconstrue, a tendency which finds its most extreme forms in psychotic patients, especially schizophrenic patients. This second possibility can be tested by means of the Rorschach. The subject is asked to say what the blots *might* be. Most responses that individuals give are consistent with the contours of the blots. The answer of a butterfly to the first blot is a common answer. It is psychologically an understandable answer because the general outline of the blot is compatible with the form of a butterfly. Some responses, however, do not fit the contours, for example, perceiving a dog in an area usually regarded as looking like a bat or butterfly. Such departures from perceptual accuracy occur in almost all protocols. But in most protocols there are only one or perhaps two such instances. Protocols of patients typically show a greater frequency of *form quality minus* responses. Murray (1985) made use of the $X + \%$ (the percentage of *conventional* form responses) as a measure of reality testing. A response can be form adequate, however, without being conventional.

DISORDERS OF THOUGHT

A second hypothesis one might have concerning the genesis of a CGI is that it requires a disturbance in thinking. Lose, "weird," illogical and/or delusional thinking might be central to the establishment of a CGI. The Rorschach Comprehensive System provides a means for assessing disturbances in thinking. One variable in particular is sensitive to a broad spectrum of problems in thinking, the WSUM6. This measure is a weighted sum score for deviations in verbal expression, logical thinking, and perceptual combinations, and reflects *cognitive slippage*. A second variable, the number of human movement responses with a minus form quality ($M-$), signals the presence of delusional thinking.

SELF PERCEPTION

A third conceivable hypothesis concerning the genesis of CGI is that it develops as a response to perceptions of oneself as being damaged, injured, or defective as male or female. According to this model the individual assumes an uncertain gender identity as a means of avoiding feeling the perceived deficits in the identity associated with the gender of birth by assuming the cross gender identity. Following this hypothesis, one *might* expect to see a high frequency of MOR responses, if the guarded against feelings of damage have not been resolved by the cross-gender "solution." One of the Rorschach variables relating to self image is the MOR code used for *morbid* responses. Perceptions involving damage, injury or dysphoria are scored *morbid* in the Comprehensive System.

METHOD

Subjects

Index Sample. Our index sample consisted of 29 patients (20 FM and 9 MF) who had attended the gender clinic of the Department of Child and Adolescent Psychiatry of the University of

Utrecht Hospital and were diagnosed as transsexuals according to DSM-III-R criteria (American Psychiatric Association, 1987). Because the University of Utrecht Hospital has the only gender clinic for adolescents in the Netherlands, the patients eligible for inclusion in this study form the complete population of diagnosed adolescent transsexuals in this country for the period in which the study was conducted (Cohen–Kettenis, 1994). The only exclusion criterion was the presence of an invalid Rorschach protocol, and this was the case for three individuals.

Patient Comparison Group. Our first comparison group consisted of 24 adolescent outpatients (16 girls and 8 boys) who had been referred to the general outpatient clinic for diverse reasons and for whom a Rorschach protocol was available. None of the patients had a psychiatric diagnosis such as transsexualism and none exhibited milder forms of gender dysphoria.

Because the transsexual group contained individuals somewhat older than are usually admitted for treatment in the outpatient clinic, it was not possible to obtain a psychiatry comparison group which was comparable in terms of age to the transsexual group.

The Rorschachs for the index and patient comparison groups were obtained in the course of standard clinical procedures (Cohen–Kettenis, 1994).

Student Comparison Group. There are as yet no normative data available in the Netherlands for the Rorschach CS. We therefore made use of a sample of 25 female first-year university students tested in a test–retest Rorschach stability study (de Ruiter, Cohen, van Bergen van der Grijp, & Binkuysen, 1993). Only the first protocols from that study were used.

Age. The mean age in years were 15.6 years ($SD = 1.35$) for the psychiatry patients, 17.2 ($SD = 1.81$) for the transsexuals and 21.2 ($SD = 3.03$) for the students. The means for the three groups were significantly different, $F(2,75) = 43.36$, $p = .000$. The mean for the index group was significantly greater than the mean for the patient comparison group, and the mean for the student group was significantly higher than the mean for the two other groups (Scheffé post-hoc comparison, $p < .05$).

Testing and Scoring

The Rorschach was administered according to the procedures of the Comprehensive System (Exner, 1990). For the patient groups the protocols were independently coded by three psychologists not involved in the diagnostic process. For the student group the protocols were also coded independently by two of these psychologists.

Disturbance in perceptual accuracy was operationalized in terms of the percentage of *form quality minus* responses ($FQ-\%$) and in terms of two cut-off points for this variable: .20 and .30. Extent of thought disorder was operationalized in terms of the weighted sum of six special scores (WSUM6) for unusual thinking. The presence of delusions was operationalized in terms of the presence of more than one M– response. The presence of negative self perception was operationalized in terms of the presence of more than 2 morbid contents (MOR) responses. These operationalizations conform to standard practice with the CS (Exner, 1993).

Analyses

The hypothesis that adolescent transsexuals are characterized by other forms of psychopathology was tested by means of one-way analyses of variances with age and biological sex as covariates. Post-hoc comparisons (Scheffé procedure, $p < .05$) between the means for the three groups were made for each analysis that was carried out.

RESULTS

Perceptual Accuracy

In Table 1 we see the mean percentage of inaccurate or *form quality minus* responses in the protocols of our three samples. The mean percentage of minus form quality responses for the transsexual group was significantly greater than that of the student comparison group. This finding is consistent with the hypothesis and suggests that there is a greater amount of perceptual inaccuracy among transsexuals than among "normals." The finding is complicated, however, by the result for the adolescent psychiatry outpatient group, which shows a mean percentage of minus form quality responses which is significantly greater than the two other groups. As a group, thus, the transsexuals do not show as much perceptual distortion as do psychiatry outpatients. They are intermediate between the "normal" and the psychiatric group. The first two rows of Table 2 present results which illustrate this finding. When we look at protocols which have more than 20% minus form quality we see that these form the bulk of the adolescent outpatient and transsexual groups (96% and 69%, respectively), but less than a third of the student comparison group. When we consider protocols with more than 30% minus form quality responses, however, we note that these are in the minority in the transsexual and student comparison groups (with 21 and 12% respectively), but in a large majority in the adolescent outpatient group (67%). Thus, using a 20% cutoff as a measure of high inaccurate perception, the transsexual and patient groups resemble each other in relative frequency and are different from the comparison student group. Using a more stringent cut-off of 30%, however, the student and transsexual groups are more alike and both have proportionally fewer "positive" cases than does the comparison patient group. The level of perceptual inaccuracy seems thus to be greater in the transsexual group than in the "normal" group, but not as great as in the comparison psychiatric patient group.

Disorders of Thought

In Table 1 we present the mean WSUM6 scores for the three samples. The adolescent psychiatric patients show the highest mean score. This score is significantly higher than the mean of both the adolescent transsexuals and the university students. The means of the two latter groups do not differ significantly.

The results for the M- variable are presented in Table 2. The proportion of cases with more than one M- response is greatest in the sample of adolescent psychiatric patients and smallest in the sample of university students, but the differences are not significant.

Table 1. Means (and Standard Deviations) for Percentage of Minus Form Quality Responses (X-%) and WSUM6 Scores in Three Samples

Variable	Sample			<i>F</i> ^a	<i>p</i>	
	Adolescent Psychiatric Patients (<i>n</i> = 24)		Adolescent Transsexual Patients (<i>n</i> = 29)			First-Year University Students (<i>n</i> = 25)
X-%	34% (10%)	>	25% (9%)	>	16% (11%)	11.3 .000
Mean WSUM6	18.9 (10.0)	>	(7.2) (8.4)		3.4 (4.7)	14.8 .000

Note.—^aANCOVA controlling for age, *df* = 2.74; ">" = Scheffe' post-hoc comparison difference, *p* ≤ .05.

Table 2. Proportion of Rorschach Protocols per Sample with Minus Form Quality Percentages >20%, with Minus Form Quality Percentages >30%, with Number of M- Responses >1, and with Number of Morbid (MOR) Responses >2

Variable	Sample Proportions			F ^a	p
	Adolescent Psychiatric Patients (n = 24)	Adolescent Transsexual Patients (n = 29)	First-Year University Students (n = 25)		
X-% > .20	.96	.69)	> .28	14.8	.000
X-% > .30	.67	> (.21)	.12)	8.4	.001
M- > 1	.29	.24	.20	.03	ns
MOR > 2	.42	> (.07)	.12)	5.8	.004

Note.—^aANCOVA controlling for age, *df* = 2; 74; ">" = Scheffe' post-hoc comparison difference, *p* ≤ .05.

With regard to ideation disturbances the transsexual sample resemble the student sample and can be described as not very different from normal.

Self Perception

The results for the MOR variable are also presented in Table 2. Only two of our transsexual cases (representing 7% of the sample) had a protocol with elevated MOR. The student sample also had a very low incidence of protocols with elevated MOR, 12%. The adolescent psychiatric sample, however, showed a far greater incidence, 42%, of protocols with elevated MOR. We therefore find no support for the idea that adolescent transsexuals suffer from a self image characterized by damage or injury.

DISCUSSION

As a group, adolescent transsexuals were found to be intermediate between adolescent psychiatric patients and nonpatients with regard to extent of perceptual inaccuracy. With regard to thinking disturbances and negative self-image, the adolescent transsexuals did not differ significantly from nonpatients. Both groups had significantly fewer individuals characterized by negative self image than did the adolescent psychiatric patients.

Two thirds of all our transsexuals had an X-% greater than .20, which according to Exner (1993) is indicative of considerable perceptual inaccuracy. This finding is not inconsistent with the hypothesis that perceptual inaccuracy is a determinant of CGI. It should be noted, however, that one-third of the transsexuals studied did *not* exhibit perceptual inaccuracy to the same extent. This level of perceptual inaccuracy can therefore not be considered a necessary factor for the development of transsexuality. At most it can be a facilitating or contributing factor. Also the possibility cannot be discarded that the extent of perceptual inaccuracy noted in the transsexual sample is secondary to CGI.

As a group the transsexuals gave evidence of as little disturbance in thinking (cognitive slippage and delusions) as did the student control group. In contrast, the psychiatric patient sample exhibited high levels of cognitive slippage and greater presence (non-significantly) of delusions. We conclude that there is no basic disturbance in thinking associated with CGI in adolescence. If the WSUM6 and M- measures are stable over time it is unlikely that the transsexuals suffered from high levels of disturbed thinking at some time in their past and

ideational disturbance is an unlikely prerequisite for the development of CGI. Should *adult* transsexuals be found to exhibit ideational disturbance, this would form compelling evidence—other factors being equal—that ideational disturbance is a *long-term consequence* of CGI.

We found no support for the idea that adolescent transsexuals suffer from a self image characterized by damage or injury. It might be argued, however, that our failure to find elevated MORs in the protocols of our transsexual subjects is the result of a narcissistic defense against feelings of injury and/or low self-esteem. If this reasoning is correct one might expect to find signs of narcissism (*reflection responses* [Exner, 1993]) in the Rorschach protocols of the transsexual group. However, the presence of a reflection response was not significantly more frequent in the transsexual group (21%) than in the student sample (12%; $\chi^2 [1] = .73$). A third of the protocols of the adolescent psychiatric sample had a reflection response, however,

On the basis of our findings we conclude that the notion that the self-image of adolescent transsexuals contains a high level of elements of damage is unsubstantiated. Again taking into account the stability of this variable we consider it unlikely that their self-image was marked by damage in the past. We therefore believe that the development of CGI is not based on a self-image marked by damage.

For the variables we investigated, the adolescent transsexuals as a group do not show the marked degree of psychopathology encountered in psychiatric groups.

Murray (1985) reported impaired reality testing in his adult transsexual patient group. We found a similar result in our sample of adolescent transsexuals in which we noted a greater level of perceptual inaccuracy in the index group relative to student controls. There is thus at least some evidence for lower levels of reality testing in transsexuals as a group than in nonpatients.

In our study involving adolescents, however, we found no more thought disturbances in the CGI group than in student controls. Adults who apply for sex reassignment surgery may manifest more thought disturbance than adolescents who apply for SRS.

Murray (1985) noted higher levels of aggression and more restricted object relations in his adult sample. These matters fell beyond the scope of this study, but the results of our extra analyses of our CS data did not suggest that the transsexuals had higher levels of aggression and more restricted object relations (as measured for example in terms of aggressive movement responses [AG]; the isolation index, pure human contents, the coping deficits index [CDI], etc.)

Our findings thus support the idea that there are psychological differences between adolescent and adult transsexuals (at least prior to SRS). The apparent greater extent of psychopathology seen in adults may be the result of increasing and enduring stress related to coping with CGI. Examples of social stress posed by CGI are social stigmatization and isolation, and educational and career arrest; intrapsychic stress arises from the escalating discrepancy between gender role expectations and gender identity as the individual enters more developmental phases.

Another possibility needs to be noted, however. The population of adult transsexuals consists to a considerable extent of individuals who did not apply for SRS in their adolescence. The two groups may not be psychologically comparable. For example, among those transsexuals who apply as adults for SRS there may be greater confusion about their CGI and (therefore) greater ambivalence about SRS. This may be an expression of *general* ambivalence. In our study we find some support for the idea of a difference between younger and older applicants for SRS from the sexual orientation of our subjects. Blanchard and colleagues (Blanchard, 1988; Blanchard et al., 1989) found that homosexual transsexuals were more likely to attend gender clinics at earlier ages and had more consistent cross gender histories. Our sample of early-age SRS applicants consisted almost entirely of homosexual transsexuals (28 versus 1 bisexual) and is thus different from adult samples where heterosexual and bisexual transsexualism are more prevalent. Our findings of relatively low levels of psychopathology in the transsexual group can possibly be ascribed to an absence of hetero- and bisexual transsexuals. It is conceivable that there are generally low levels of psychopathology in homosexual trans-

sexuals, and if there is (other) psychopathology present in transsexuals it is concentrated in the group of non-homosexual transsexuals. Should this be the case, it still remains unclear if the psychopathology in the group of non-homosexual transsexuals is a source or a consequence of CGI. In any event, the argument that gross psychopathology is a required condition for the development of transsexualism appears indefensible.

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