Psychological Testing With Transsexuals: A 30-Year Study

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Psychological Testing with Transsexuals: A 30-Year Review

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Abstract: This paper critically reviews over 30 years of psychological testing of transsexualism, during which time 41 studies have been published. A review of the psychological tests and methodology employed, the search for an adequate control group, and an analysis of the findings are presented. It is argued that we have reached a critical point in transsexual research. Researchers must reconsider the “hit or miss” approach to psychological testing with transsexuals and relate psychological testing to the actual clinical phenomenon of transsexualism, addressing the newer conceptualizations of transsexualism as a variant of borderline pathology.


Background Information

The majority, 27 of the 41 published studies, were reported during the period from 1975 to the Spring of 1983. Clearly the last decade has been the high-water mark for this type of transsexual research. A variety of diverse psychometric measures, including 56 different tests, have been administered to transsexuals. These tests included standardized clinical tests (projective and objective tests), neuropsychological tests, personality inventories, self-report rating scales, various tests of cognitive abilities, sexual functioning rating scales, and an assortment of homespun tests and inventories reflecting the interests of a particular clinician or clinical investigation.

Subjects

Of the 699 self-labeled transsexuals who received psychological testing, 81% (565) were male and 19% (134) were female. The ratio of 5:1, males to females, is within the range of previously reported male:female transsexual ratios (Benjamin, 1966). Only eight of the studies (22%) reported their findings according to the race of the subjects. Of those studies 5% (36) of the subjects were black. This figure represents a slightly lower estimate of the total number of black transsexuals evaluated at gender identity clinics throughout the country (Lothstein & Roback, 1983). The average age of the transsexual subjects was 29.44
Overall Psychological Functioning

A. Pre-operative
1. Evidence of severe psychopathology or no apparent psychopathology was demonstrated.
2. Transsexuals who continued to live in the male gender role had psychological problems vs. those living as females who showed an absence of psychopathology.

B. Post-operative
1. Patients post-SRS were shown to have a higher level of psychological adjustment.
2. In one study a post-operative transsexual eight years later showed dramatic improvement in her psychological functioning.

Gender Role and Identity

A. Overall
1. Transsexuals were viewed as less androgynous and needing to maintain more traditional and stereotyped gender roles.
2. Transsexuals were seen as evidencing a hypermasculine or feminine gender role orientation.

B. Males
1. Male transsexuals were shown to have lowered sexual drive and decreased information about sexuality.
2. Specific performances on psychological tests were correlated with the subject’s degree of expressed feminine gender identity.

Specific Test Patterns

A. MMPI
1. A 5-4/4-5 MMPI profile, with Scale 5 over 80 T scores, seems to be predictive of subclinical signs of profound gender dysphoria.
2. A Gender Dysphoria Scale on the MMPI was constructed to diagnose profound gender pathology and gender identity disturbances subclinically.

B. Drawings
1. Transsexuals who draw the opposite sex first are viewed as having evidenced gender identity disorders.
2. New tests, e.g., Animal Drawing and Opposite Test, were discovered for “predicting” transsexualism.

C. Cognitive
1. Transsexuals were variously seen as having a brighter than average IQ or Superior IQ (though the range of IQs varied from Dull Normal to Very Superior).
2. Intellectual performances on the WAIS were seen as congruent with their biological sex.

D. Scales
1. A body image scale was constructed which was seen as being used to predict and assign patients for sex reassignment surgery.
2. On self-report measures, transsexuals tend to underrate themselves on most variables (i.e., present a “healthy” picture).

Of the 41 studies 42% (17) involved the use of control groups. These control groups accounted for 1515 subjects. The average age of the control subjects was

years of age (with mean ages ranging from 16.7 years to 62 years). There were no significant age differences among the male and female transsexuals.
29.1 years (range 24-35 years of age). Only five of the studies (29% of the total of 17 studies) attempted to match the subject population on age and racial characteristics, and only one (.0007%) of the 1515 control subjects was black.

Results

Table 1 presents the summary of the results of psychological testing with transsexuals (reported according to the sex of the subjects).

Results: Female-to-Male


In three of the studies a single case was reported and a complete battery of psychological tests were administered (McCully, 1963; Redmount, 1953; Warner & Lahn, 1970). Each of the female transsexuals in those studies were described as having severe psychopathology, chaotic family backgrounds, and poor social-psychological functioning. The psychological test results supported the findings of the clinical interview and highlighted the severity of the patient’s psychopathology.

In those studies where groups of transsexuals were psychologically tested, only a single self-administered psychological test was employed. In most cases the tests administered were not part of a clinical battery and, in fact, are rarely, if ever, used in clinical settings. Moreover, self-report measures are often unreliable and are dependent on the patient’s motivational or instructional set (Kass, Charles, Klein, & Chen, 1983). Consequently, the conclusions drawn from these tests must also be viewed with caution. The findings of these group tests were: that female-to-male transsexuals lacked significant psychopathology and revealed no evidence of reality impairment (Derogatis, Meyer, & Vasquez, 1981; Roback, McKee, Webb, Abramowitz, & Abramowitz, 1976b); that they were healthier than their male counterparts (McCauley & Ehhardt, 1977); that as a group they were indistinguishable from a group of non-patient controls and enacted more stereotypical gender roles and identities (Strassberg, Roback, Cunningham, McKee, & Larson, 1979). In conclusion, depending on whether one used the single case study or group approach, two opposing views of female transsexualism emerged.

Results: Male-to-Female Transsexualism

An analysis of the male-to-female transsexual test findings suggested a less confusing clinical picture, perhaps because no use was made of the single case study approach. The results were: male transsexuals appeared to be less stable and more psychologically disturbed than their female counterparts (Finney, Brandsma, Tondow, & Lemaistre, 1975; Hunt, Carr & Hampson, 1981); had a lowered sex drive and decreased information about sexuality (Derogatis, Meyer, & Vasquez, 1978, 1981); became psychologically stabilized once they lived out and enacted a cross-gender role and identity (Langevin, Paitich, & Steiner, 1977); and became more “stable” after hormone and surgical interventions (Fleming, Cohen, Salt, Jones, & Jenkins, 1981; Hill, 1980). On cognitive tests their pattern of scoring suggested a higher than average intelligence (Doorbar, 1969) and a feminine way of responding (Buhrich & McConaghy, 1979). Several studies also attempted to isolate predictor variables for diagnosing transsexualism and determining which transsexuals should be referred for SRS (Fleming, Cohen, Salt, Robinson, & Spitz, 1982; Lindgren & Pauly, 1975).

Commonly Used Tests

The most frequently employed tests were the MMPI, the Draw-A-Person (DAP) (and its many variations), and a number of cognitive tests of intellectual functioning (especially the WAIS).

The MMPI. Eight studies focused ex-
clusively on the MMPI (Althof, Lothstein, Jones, & Shen, 1983; Finney, Brandsma, Tondow, & Lemaistre, 1975; Fleming, Cohen, Salt, Jones & Jenkins, 1981; Greenberg & Lawrence, 1981; Lothstein, Althof, Shen, & Jones, 1979; Roback, McKee, Webb, Abramowitz, & Abramowitz, 1976a, 1976b; Tsushuma & Wedding, 1979). The results of the MMPI studies suggested a typical scoring pattern, including a T score over 80 on Scale 5 (with Scale 5 being the highest scale); a 5-4-5-5 2-point MMPI code profile; and a Gender Dysphoria cutoff score of 17 (Gd scale, cf. Althof, Lothstein, Jones, & Shen, 1983). In one study 75% of all MMPI profiles of male transsexuals were either 5-4-5-5 code types, and 100% of the studies reported that Scale 5 was the highest scale. These findings were significantly different from the expected 25% probability that any individual's MMPI profile would be identical to the group's mean two-point MMPI code profile.

Of the eight studies (22%) which focused exclusively on the MMPI, the mean number of subjects was 20.5 (the range being from 10-35 subjects). While the smallness of the sample size poses some methodological problems, the MMPI results for males seem to be fairly consistent across a range of studies, though the interpretation of the findings vary considerably depending on whether the investigator even wished to interpret Scale 5 (Serkownek, 1975).

In addition to the eight studies which focused exclusively on the MMPI, another nine studies employed the MMPI as one of many tests (in which 231 additional transsexual patients were evaluated). The results of these studies were consistent with those reported above.

**Draw-A-Person test.** The second most frequently cited test in transsexual research was the DAP Test (and its variations). An individual's gender identity conflicts and possible transsexualism was often diagnosed solely on the basis of the sex of the first drawn figure (Fleming, Koocher, & Nathans, 1979). Such a conclusion may be misleading. For example, among nonpatient females it is characteristic for them to draw a male figure first (Gravitz, 1966). How then does one analyze the choice of the female-to-male transsexual who drew the male figure first?

**Cognitive tests.** Finally, there are a number of studies which have focused on the cognitive issues of transsexualism (Doorbar, 1969; Hunt, Carr, & Hampson, 1981; Kenna & Hoenig, 1979; Loomis, 1977; Money & Brennan, 1969). The results suggest that transsexuals have a higher IQ than the general population (in the Bright Normal range of cognitive functioning). However, when one examines the smallness of the sample sizes, the diversity of IQ measures employed, the large variation in IQ scores, and the fact that most scores were obtained by patients enrolled at gender clinics in University Hospital clinics (who usually came from high socioeconomic groups), then the results of the IQ tests are less compelling.

Of special interest has been the apparent lack of focusing by researchers on the broader issues of cognitive style and functioning; thought processes and cognitive maturation as they may relate to the organization and evolution of gender structures (e.g., gender-self representation; gender constancy; and core gender identity).

**The Search for a Control Group**

One of the challenges for psychologists has been to find the appropriate control groups for transsexuals. While 12 (29%) of the 41 studies included a control group, there seemed to be many problems. In six of those studies the subjects were not matched for age (though the mean ages of the experimental and control groups were not significantly different). Moreover, only three of the studies employed the same number of subjects as the experimental group (and the subjects in these groups were matched on all pertinent variables). Although the number of control subjects far exceeded the number of experimental subjects (1515 vs. 699), when one subtracts the effect of three of those control groups (which had an unusually large number
of subjects, almost 700), it is clear that the power of that effect was diluted. Clearly, the appropriate control group for transsexuals has not yet been found.

Newer Conceptualizations of Transsexualism: Borderline Pathology

The role of psychological testing in diagnosing and assessing transsexualism has been complicated by three factors: (a) the DSM-III diagnosis of transsexualism which precludes the use of testing in making the diagnosis, (b) the view that SRS is the treatment of choice for transsexualism, and (c) the lack of a universally accepted theory to explain transsexual pathology. However, as critics reconsider the DSM-III diagnostic criteria for transsexualism, as research continued to suggest that psychotherapy, not surgery, is the treatment of choice for transsexualism (Lothstein, 1983), and as newer theories of transsexualism (stressing the linkage between transsexualism and borderline disorders) are presented, clinicians will have the opportunity to restructure the role of psychological testing in transsexualism (focusing on assessment rather than prediction).

In fact, over the last decade a number of clinicians have suggested that transsexualism may be a variant, or subtype, of the spectrum of borderline disturbances (Lothstein, 1983; Person & Ovesey, 1974; Volkan, 1979). A range of disorders whose etiology is traceable to a developmental arrest occurring during the rapprochement phase of separation-individuation (between the ages of 1 to 3; cf. Mahler, 1968). These disorders (Kernberg, 1975) are seen as involving structural defects and weaknesses of the ego and profound narcissistic and self pathology. The conceptualization that transsexuals really suffer from a borderline disorder may also provide a possible explanation for the discrepancy between transsexuals’ clinical material and their psychological test results. For example, transsexuals have been noted to be free of significant psychopathology both on clinical interview and on objective test measures but as exhibiting severe psychopathology on projective tests (Lothstein, 1983; McCully, 1963; Redmount, 1953). These patterns of behavior and test results are identical to those reported for borderlines (cf. Carr, Goldstein, Hunt, & Kernberg, 1979; though Widiger, 1982, offers a different interpretation of the test patterns for borderlines).

It may be that psychological testing for the transsexual, as for the borderline patient, is critical for diagnosis and treatment. Indeed, by interpreting the transsexual’s psychological test material (when contrasted with the clinical interview material) in terms of the known dimensions of borderline pathology, one’s ability to understand the patient’s core psychological problems may be improved. These problems include: defects in symbol formation; lack of identity integration; a developmental arrest and impairment in ego functions; the utilization of primitive defenses; the organization of their object relationships along sadomasochistic lines (involving primitive and pathologically internalized object relationships); impairment of core gender identity; inadequate self-object differentiation; and the inability to establish adequate gender self-representations, object, and self-constancy. The results of psychological testing could also be used to evaluate the sensitive relationship between the transsexual’s primitive psychological defenses and drives (especially aggression) as they affect the formation of a transsexual identity. Indeed, Volkan (1976) believes that many transsexuals are terrified of their aggressive impulses and look to surgery to rid themselves of their aggression.

By viewing the transsexual’s psychological test patterns in terms of borderline psychopathology, clinicians will no longer need to use psychological testing only to make predictions whether a given transsexual is a “good candidate” for surgery or determine whether a transsexual is “really female” or “male.” Indeed, the psychological testing of transsexuals could then be used to assess the patient’s overall ego strengths and weaknesses and his/her potential for engaging in psychotherapy.
Psychological Testing with Transsexuals Revisited

While the results of the psychological testing of transsexuals have provided a distinct clinical profile of male and female transsexualism, no overall picture of transsexualism has emerged.

It appears as if the lack of employment of standardized psychological testing (especially the Rorschach), the emphasis on using self-report single test measures, and the lack of a coherent theory of transsexualism, has led to a situation in which masses of psychological data have been accumulated without significantly increasing our understanding of the phenomenon of transsexualism.

The "hit or miss" approach to transsexual research (that is, selecting a psychological test measure to see how transsexuals score on it), and the practice of publishing several short papers (each on a single test measure of the same patient group without ever organizing the total clinical picture), has simply not proved useful. Ideally, transsexuals should be administered a full battery of psychological tests and the findings reported as a whole (cf. Hill, 1980; Lothstein, 1983; McCully, 1963). Such a clinical approach would provide a more systematic data base tied to the actual clinical phenomenon of transsexualism (as seen by the practitioner). The methodology of the case history approach should be pursued, but adapted to investigating large numbers of transsexual patients. The advantage of such an approach would be to provide detailed information about the overall psychological functioning of transsexuals, a task that has been virtually ignored by 30 years of research.

The applied practitioner must reconsider the practice of using psychological testing solely to address the narrower issues of prediction of success for SRS, determining which patients are genuinely transsexual, and ruling out psychosis. In the last analysis such an oversimplified approach to psychological testing does an injustice to the demands of research methodology and a disservice to the individual afflicted with transsexualism.

In conclusion, it appears that the use of psychological testing for diagnosing and treating transsexualism has been inadequately utilized. Future investigators would better serve the transsexuals and their own research interests by focusing on the use of psychological testing for diagnostic and treatment purposes.

Indeed, researchers ought to focus on designing studies in which large numbers of transsexuals are given comprehensive psychological testing. Some areas which also need to be explored include the following: (a) using nontranssexual borderlines as a control group for transsexuals, (b) psychologically testing the mothers of transsexuals so that the relationship between the mother's gender representational structures and her child's can be assessed (specifically focusing on how the mother may imprint her gender schemas and gender representational systems onto her child), (c) studying how the hypothesized thinking disorders in parents of transsexuals are grafted onto their children (with specific focus on the WAIS and cognitive psychological tests), and (d) using psychological testing to further assess the transsexual patient's patterning of psychological defenses, object relations, and identity integration, so that more can be learned about the nature and process of transsexualism.

References


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