

# Mothers of Boys with Gender Identity Disorder: A Comparison of Matched Controls

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**Abstract.** This pilot study compared mothers of boys with gender identity disorder (GID) with mothers of normal boys to determine whether differences in psychopathology and child-rearing attitudes and practices could be identified. Results of the Diagnostic Interview for Borderlines and the Beck Depression Inventory revealed that mothers of boys with GID had more symptoms of depression and more often met the criteria for Borderline Personality Disorder than the controls. Fifty-three percent of the mothers of boys with GID compared with only 6% of controls met the diagnosis for Borderline Personality Disorder on the Diagnostic Interview for Borderlines or had symptoms of depression on the Beck Depression Inventory. Results of the Summers and Walsh Symbiosis Scale suggested that mothers of probands had child-rearing attitudes and practices that encouraged symbiosis and discouraged the development of autonomy. *J. Am. Acad. Child Adolesc. Psychiatry*, 1991, 30, 2:310-315. **Key Words:** gender identity disorder, maternal psychopathology, Beck Depression Inventory, Diagnostic Interview for Borderlines, symbiosis, autonomy, child-rearing practices.

Recent years have seen a burgeoning interest in gender identity disorders (GID) in children. Boys and girls with GID are distressed about their gender, wish to be of the opposite gender, and manifest a predominant interest in behavior and activities that are typical of the opposite gender. Boys with GID prefer female stereotypical activities, such as dressing up in girls' clothes, playing with dolls, and playing the role of a female in fantasy activities. Symptoms of GID in boys usually emerge between the ages of 2 to 4 in the form of an intense interest in dressing up in female clothes (Stoller, 1968; Green, 1974; Coates, 1985; Meyer and Dupkin, 1985). Although most homosexuals have not had a childhood history of GID (Saghir and Robins, 1973; Friedman, 1988), follow-up studies have found that at least three-quarters of boys with GID become homosexual as adults (Money and Russo, 1979; Zuger, 1984; Green, 1985). The role of biological influences on the development of GID is not understood to date. No differences have been found between boys with and without GID in either morphology of external genitalia or in karyotyping of sex chromosomes (Green, 1974; Rekers et al., 1979). Despite these results, there is indirect evidence from animal studies and from spontaneously occurring endocrinological disorders that suggests that prenatal hormones may influence certain aspects of temperament, such as energy expenditure and rough and tumble play (Ehrhardt and Meyer-Bahlburg, 1981; Hines, 1982; Friedman, 1988). The authors' clinical observations

of boys with GID as well as observations of others suggest that most have a temperament that involves avoidance of rough and tumble play (Coates and Zucker, 1988).

Although GID is presumed to be a relatively rare disorder, epidemiological studies have not yet been carried out to identify the incidence and prevalence of GID in boys and girls. Boys, however, are more often referred to child psychiatry clinics for evaluation than are girls (Coates and Zucker, 1988).

It is now fairly well established that GID usually occurs in a context of psychopathology other than cross-gender behavior (Bates et al., 1973, 1974, 1979; Bradley et al., 1980; Coates, 1985, 1988; Coates and Person, 1985; Tuber and Coates, 1989). For example, studies have found that extremely feminine boys have more psychopathology than normal controls on behavioral disturbance inventories, such as the Child Behavior Checklist (CBCL), scoring in the range of psychiatrically referred children (Bradley et al., 1980; Coates and Person, 1985). Coates and Person (1985) found that 60% of their sample of boys with GID met the *DSM-III-R* criteria for separation anxiety disorder and also scored in the clinical range on the depression scale of the CBCL. The finding of a relationship between GID and separation anxiety disorder has recently been replicated by Lowry and Zucker (1990). On blind rated Rorschachs, boys with GID, when compared with normal controls, were found to have more evidence of boundary disturbances and a more frequent internal experience of others as overpowering and malevolent (Tuber and Coates, 1989).

Boys with GID exhibit chronic suffering that is often expressed directly by them as self-hate. One boy at age three said: "I hate myself. I don't want to be me. I want to be somebody else. I want to be a girl." They often experience the anguish of feeling lonely and isolated. Because most are shy and nondisruptive in school, their psychological pain and suffering often go unrecognized by others in their environment.

Studies designed to elucidate the factors that contribute to the etiology of gender identity disorders are important

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for developing strategies for prevention, early intervention, and treatment planning. While gender identity disorder is comparatively rare, an understanding of the genesis and dynamics of this syndrome promises to illuminate fundamental mechanisms involved in the development of masculinity-femininity and the process of identity acquisition that underlies it.

The clinical observations of mothers of boys with GID from several different research units suggest that the mothers have difficulty with affect regulation that manifests itself in psychiatric disorders, such as borderline personality and depression (Stoller, 1968; Bradley et al., 1980; Coates, 1985; Coates and Zucker, 1988; Meyer and Dupkin, 1985). Depression in mothers is a known risk factor in the development of depression, separation anxiety, and attention deficit disorder in children (Weissman et al., 1984; Puckering, 1989). Borderline personality disorder in mothers is a known risk factor in the development of borderline personality disorders in adolescents (Masterson and Rinsley, 1975). One of the first steps involved in developing an understanding of the cause of childhood psychiatric disorders is to begin to identify parental predisposing factors.

Elsewhere, Coates (1990) proposed a biopsychodevelopmental model to explain the origins of GID in boys that involves a complex interplay of biological, psychological, and cognitive developmental predisposing factors. She has explored the contribution of temperament, massive trauma, cognitive representational level of the child, and parental psychopathology to the development of this disorder. She believes that a predisposition in the boy to anxiety, an unusual capacity for positive emotional connection, an ability to imitate, and a variety of sensory sensitivities as well as parental difficulties in affect regulation interact during a critical period of mental representational ability in the boy's life (before gender constancy is established) to bring about a GID (Coates, 1988, 1990). According to this model, familial psychopathology is only one of several significant predisposing factors in the development of GID in boys.

This paper reports a pilot study that is the first systematic study of psychopathology in mothers of boys with GID. The authors chose to focus on disorders that had been clinically observed in the families of these boys by previous investigators. The research reported here represents the start of a series of ongoing family studies and is a preliminary step in the process of pinpointing familial factors that contribute to the development of GID.

The aims of this pilot study were two-fold: First, to determine whether the symptoms of depression and borderline character pathology are significant features of the psychological functioning of mothers of boys with GID; and second, to determine whether child-rearing attitudes and practices involving interference in the development of autonomy are predisposers to the development of GID as well.

## Method

### Subjects

The subjects of this study were 16 mothers of boys with GID and 17 mothers of normal boys. The probands were

consecutive referrals for evaluation at a Childhood Gender Identity Unit in the Child Psychiatry Outpatient Department of a voluntary hospital in a major metropolitan area. One parent refused to participate in the study. Mothers of boys with GID were pair matched with control boys on the basis of their son's age, on the family's socioeconomic status (SES) (Hollingshead, 1975), race, and religion. They were comparable for IQ of the son, father absence before age 4, and age of mother at the time of the study. There were no statistically significant differences on any of these variables. The average age of the boys with GID was 7 years 10 months, IQ was 103, and SES was 30. The average age of the normal boys was 8 years 0 months, IQ was 109, and SES was 31. The boys of each group had IQs in the average range, and the SES for both groups was in the lower middle range. The average age of the mothers of each group was 32. Fifty percent of each group was white, 44% was Hispanic, and 6% was black. Eighty-one percent of each group was Christian, 19% was Jewish.

The *inclusion criteria* for the probands were boys between age 4 and 12 who met the *DSM-III-R* criteria for GID of childhood. There were no *exclusion criteria* for probands.

The *DSM-III-R* criteria for gender identity disorder in boys are as follows:

1. Persistent and intense distress about being a boy and an intense desire to be a girl, or more rarely, insistence that he is a girl.
2. Either A or B.
  - A. Preoccupation with female stereotypical activities, as shown by a preference for either cross-dressing or simulating female attire, or by an intense desire to participate in the games and pastimes of girls and rejection of male stereotypical toys, games, and activities.
  - B. Persistent repudiation of male anatomic structures, as indicated by at least one of the following repeated assertions:
    - (1) that he will grow up to become a woman (not merely in role).
    - (2) that his penis or testes are disgusting or will disappear.
3. The boy has not yet reached puberty.

The *inclusion criteria* for controls were that each boy be matched on a pair by pair basis with a proband for age (within 6 months), SES (within 5 points), and race and religion. Controls were drawn from two public schools and three private schools in New York City. *Exclusion criteria* for controls were evidence of a history of GID, a history of referral for psychiatric services, suspension from school for behavioral problems, learning difficulties of sufficient severity to require special class placement, and severe chronic medical illness.

### Assessment Method

A semistructured diagnostic interview, the *Diagnostic Interview for Borderlines* (DIB), was used for establishing maternal diagnosis (Gunderson and Kolb, 1978). The DIB

consists of 123 interview questions from which the cardinal characteristics of borderline patients as defined in the literature are rated. These questions span five subcategories:

*Social adaptation.* Unstable work or school history and erratic expressions of achievement, an active social life involving groups of people, and an absence of social inappropriateness.

*Impulse action patterns.* Behavior that is destructive of self or others, including but not limited to, substance abuse and promiscuity.

*Affects.* Recent and chronic experiences of clinical depression, chronic feelings of dysphoria and anhedonia, frequent anger, and expressions of entitlement.

*Psychosis.* Experiences of derealization, depersonalization, and transient psychotic episodes.

*Interpersonal relations.* Having difficulty being alone, and having intense, unstable relationships that are characterized by devaluation, manipulation, hostility, and problems with dependency and masochism.

The criteria for a borderline diagnosis contained in the DIB are significantly correlated with the criteria for borderline personality disorders set forth in the *DSM-III* (Gunderson et al., 1981; McGlashen, 1983). The interrater reliability of the DIB, when used by clinically skilled interviewers, has been reported to range from 0.85 to 0.90 agreement. The interviews in this study were not blind and were conducted by the first author.

The Beck Depression Inventory (BDI) was used to assess symptoms of depression (Beck et al., 1961). The BDI is a 21-item self-report questionnaire measuring the presence and severity of all symptoms of depression that have occurred during the past week. The cutoff score used in this study is the standard score used in the BDI for mild depression. Split-half reliabilities have been reported to range from 0.79 to 0.93 (Beck, 1967, 1972; Reynolds and Gould, 1981; Strober et al., 1981).

The Interview for the Measurement of Symbiosis in Human Relationships (Summers and Walsh, 1978) was used to assess symbiotic fostering/autonomy-inhibiting child-rearing practices and attitudes. Symbiosis is defined along five dimensions:

*Dependency.* Inability to function without participation or consent of the other.

*Difficulty separating.* Extreme emotional distress when separations are imminent or merely being considered.

*Difficulties in differentiation of emotional states/boundaries.* Identification of the other's needs, desires, and feelings as one's own, with little if any recognition of differences between oneself and the other.

*Intrusive control.* Consistent unsolicited interventions in other's actions and the expectation that others should always fulfill one's wishes.

*Disapproval of relationships with others.* Negative responses to the suggestion that the other desires outside social relationships.

For the purposes of this study, interview material for the Symbiosis scale was segmented, statement by statement, by

TABLE 1. *Diagnostic Interview for Borderlines*

	Mothers of Boys with GID (N = 16)		Mothers of Nonclinical Boys (N = 17)		t-test
	$\bar{X}$	SD	$\bar{X}$	SD	
Total score	5.73	1.66	2.47	1.82	4.79**
Section scores					
Social adaptation	1.73	0.45	1.58	0.79	0.62
Impulse patterns	0.46	0.74	0.47	0.94	0.01
Affects	1.20	0.77	0.59	0.87	2.28*
Psychosis	0.46	0.74	0.00	0.00	2.59*
Interpersonal relations	1.86	0.36	0.35	0.60	8.76**

\*  $p \leq 0.05$  (two-tailed), \*\*  $p \leq 0.01$  (two-tailed).

the first author and another clinical psychology Ph.D. candidate as relevant or not to one of the five dimensions pertaining to symbiosis. The second rater was blind to the purposes of the study. Each statement was then rated on a 6-point scale by two other blind raters, both of whom were candidates in a Ph.D. program in clinical psychology. Estimates of interrater agreement have been reported to range from 0.79 to 0.94 (Summers and Walsh, 1977, 1979; Summers, 1978). One modification was made in the original measurement instrument. A category called injunctions was included in the category of intrusiveness because pilot testing using this instrument failed to discriminate these two.

#### Data Analysis

T-tests (two-tailed) were performed to compare differences in the means of the two groups studied. Given that in small sample sizes it is not always clear as to whether the distributions meet required criteria for parametric analysis, Mann-Whitney U tests were also conducted. Since both analyses lead to virtually identical results, only t-tests will be reported.

### Results

#### Diagnostic Interview for Borderlines

Comparison of the mothers of boys with GID and control-group mothers in terms of borderline personality disorder on the DIB can be seen in Table 1. Significantly more mothers of boys with GID had a diagnosis of borderline personality disorder than did mothers of boys without GID. The total scores for the DIB as well as for three of the five subsections significantly distinguished the mothers of boys with GID from the control mothers. Significant differences occurred in the following areas: Interpersonal relations, psychosis, and affects. Social adaptation and impulse action patterns failed to distinguish the two groups of women.

While none of the mothers in the comparison group obtained scores in the borderline range of psychopathology, 25% of mothers of boys with GID did so. Even when the mothers in the latter group did not obtain scores in the borderline range, many of them nevertheless obtained higher;

TABLE 2. *Summers and Walsh Symbiosis Scale*

	Mothers of Boys with GID (N = 16)		Mothers of Nonclinical Boys (N = 17)		t-test
	$\bar{X}$	SD	$\bar{X}$	SD	
Total score	4.58	0.54	3.20	0.59	7.18**
Section scores					
Dependency	4.99	1.10	3.64	1.08	3.54**
Separation difficulty	4.42	0.89	2.70	1.07	4.97**
Undifferentiation	4.89	0.55	3.55	0.83	5.28**
Intrusive control	4.96	0.68	3.88	0.81	4.11**
Disapproval of other relationships	3.65	1.45	2.22	0.91	3.41**

\*\*  $p \leq 0.01$  (two-tailed).

and more pathological, scores than the mothers of normal boys.

#### *Beck Depression Inventory*

On the BDI, the mothers of boys with GID obtained significantly higher scores ( $N = 16$ ;  $\bar{X} = 15.80$ ;  $SD = 14.77$ ) than mothers in the comparison group ( $N = 17$ ;  $\bar{X} = 4.06$ ;  $SD = 5.37$ ;  $t$ -test = 2.91,  $p \leq 0.01$  [two-tailed]). Forty-six percent of mothers of boys with GID versus 6% of mothers in the comparison group had scores falling within the clinical range as defined by the BDI.

Considering the BDI and DIB together, 53% of the mothers of boys with GID and 6% of the controls scored either in the clinical range on the DIB or had symptoms of depression on the BDI.

#### *Interview for the Measurement of Symbiosis*

Interrater reliability coefficients using the Spearman-Brown Prophecy Formula were as follows for the five dimensions of the Summers and Walsh Symbiosis Measure: undifferentiation = 0.97; dependency = 0.97; separation difficulty = 0.98; intrusive control = 0.97; disapproval of relationships with others = 0.96.

As Table 2 shows, the mothers of boys with GID reported significantly more symbiotic attitudes and behavior than the controls in their sum total scores across all five dimensions. Furthermore, the two groups differed significantly in the predicted direction on each of the five dimensions comprising the total symbiosis measure: dependency, separation difficulty, undifferentiation, intrusive control, and disapproval of other relationships.

#### **Discussion**

Over half of the sample mothers of sons with GID met the criteria either for the clinical diagnosis of borderline personality disorder, as measured by the DIB, or had symptoms of depression as measured by the BDI. In contrast, no women among the controls had a borderline personality disorder, and only one had symptoms of depression. While over half of the sample of mothers of sons with GID fully met diagnostic criteria for either borderline personality dis-

order or depression, in the half that did not, there were nevertheless many symptoms that may be of clinical significance and may constitute a subclinical syndrome. It was also observed that many women had symptoms of a narcissistic personality disorder, but this was not systematically assessed in this pilot study.

The DIB results suggest that mothers of sons with GID have longstanding difficulties in the regulation of affect and in interpersonal relations. Particular difficulties around issues of separation, depression, and the management of aggression were striking. They describe themselves as compulsively seeking companionship, as prone to intense, emotionally stormy, angry relationships, and as having chronic and intense feelings of loneliness, emptiness, and depression. They tend to make excessive demands on people and feel entitled to do so.

While one could argue that the findings on the BDI may have come about as a reaction to GID in their sons, both the clinical interviews and the depression items on the DIB suggest that symptoms of depression were longstanding in the mothers of probands and usually predated the onset of a consolidated GID. Additional support for this argument comes from the finding that 44% of the mothers had sought psychiatric help for their depression at some point during their life, and the majority of mothers described the first 3 years of their son's life as severely stressful and overwhelming.

One mother whose son was age 4 described her depression as follows: "For months, he's had a hard time getting me out of bed, for years, actually. He'd be trying to get me out of bed for hours. 'Please, Mommy, get out of bed, please, please.' When I do play with him, I find myself getting bored, and sometimes I've fallen asleep on the floor in his room while he's tried to play."

In addition to difficulties in affect regulation, management of aggression, and chronic depressive experiences, the DIB findings indicate that mothers of boys with GID are vulnerable to transient, but not prolonged, experiences of depersonalization, brief paranoid experiences, and transient psychotically depressed ideation.

The findings of the Symbiosis Interview suggest that mothers of boys with GID have child-rearing attitudes and behavior that promote symbiosis and interfere with the development of autonomy. Compared to the control group, mothers of sons with GID are extremely dependent on their sons for emotional sustenance. They have boundary problems and difficulty separating from their sons. They use intrusive control measures when limit setting and disapprove of their sons' relationships with others. Examples of these behaviors from the interviews of mothers of sons with GID are as follows:

*Dependent.* "He's my reason for living. He's the only person I really have besides my mother, and I'm the only person he has."

*Difficulty separating.* "I can't think of anything that I do apart from my son (age 12). I never go any place without him. We're always attached."

*Difficulties in differentiation of emotional states/bound-*

aries. "When I'm unhappy, he feels unhappy; if I have a headache, he'll say, 'Maybe I'll lay down.' If I'm tired, he'll get tired, too."

*Intrusive control.* "He never does anything that I don't know about. He always tells me everything. I always encourage him to tell me everything that he's doing."

*Disapproving of relationships with others.* "It bothers me that he talks to other people I don't know and not to me."

The pilot data reported here suggest that a subgroup of mothers of sons with GID have trait psychopathology, which affects their psychological functioning, particularly in areas of affect regulation, management of aggression, and interpersonal relations. The authors believe that the results of the Symbiosis Interview reflect the impact of these women's psychopathology on their attitudes and behavior in their ongoing interactions with their sons.

Borderline psychopathology and depression are predisposing factors to psychopathology in children, including separation anxiety, depression, attention deficit, and borderline disorders (Masterson and Rinsley, 1975; Weissman et al., 1984). The current results suggest that disorders that involve affect regulation including both borderline psychopathology and depression may also be one of the important risk factors in the development of GID in boys. It is assumed that these factors involve both a genetic risk as well as a transgenerational transmission of psychopathology that may come about in part through dysfunctional child-rearing patterns.

From previous observations, the authors believe that cross-gender identification in the majority of boys, but not in all, is a defensive solution to separation anxiety. Since over half of the boys with GID in this study have a separation anxiety disorder, borderline personality disorder/symptoms of depression in the mothers are viewed as predisposing the boy to develop separation anxiety but not as independently contributing to cross-gender behavior as a defense against this anxiety. The factors that specifically predispose the boy to a cross-gender solution are not yet identified.

It is believed that the father has as significant a role as the mother in contributing to his son's gender identity difficulties and that in future research on families of boys with GID, both parents need to be studied. In this study, the clinical impression of the few fathers who have been evaluated suggests that they too have difficulties with affect regulation and possibly with alcoholism.

For a GID to develop it is believed that multiple factors must come together including biological factors that are expressed in temperament, family traits and state, and severe stress during a developmentally sensitive period. (See Coates, 1990 for a detailed discussion of factors other than parental psychopathology that contribute to this disorder).

This study has several important methodological limitations. First, interviews both for the DIB and the Symbiosis Measure were not conducted blindly. Second, the study focused only on two types of psychopathology rather than on the full spectrum of psychopathology. Third, fathers were not included in the study. Fourth, the study did not include

clinical controls.

The findings of symptoms of depression on both the BDI and the DIB suggest that future studies should assess clinical depression with an effort to retrospectively assess the perinatal period and the first 3 years of the child's life as well as depression over the life course.

The findings of this pilot study are sufficiently strong to call for a comprehensive study of psychopathology in parents of children with GID. The authors suggest that a comprehensive evaluation of mothers and fathers using multiple measures and structured interviews, such as the Structured Clinical Interview for the *DSM-III-R*, with normal and clinical controls should be launched. Such a study is likely to shed important light on the familial contribution to this disorder. Increasing our knowledge of the role of the family as one important variable in the cause of GID will help us to develop more specific treatment strategies for therapeutic work with these boys and their families and will help form guidelines for preventive intervention.

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