Traits of Separation Anxiety in Boys with Gender Identity Disorder

KENNETH J. ZUCKER, PH.D., SUSAN J. BRADLEY, M.D., AND CLAIRE B. LOWRY SULLIVAN, PH.D.

ABSTRACT

Objective: To assess the presence of traits of separation anxiety disorder in boys referred clinically for gender identity disorder. Method: One hundred fifteen boys were referred to a specialty clinic for concerns about their gender identity development. They were divided into two subgroups: one group met the complete diagnostic criteria for gender identity disorder; the other group did not meet the complete diagnostic criteria. The mothers of the boys were administered a structured interview schedule pertaining to separation anxiety disorder according to DSM-III criteria. Results: A conservative definition of separation anxiety disorder showed no significant association with gender identity disorder; however, a liberal definition of separation anxiety disorder showed that it occurred significantly more often in the subgroup of boys who met the complete criteria for gender identity disorder than in the subgroup who did not meet the complete criteria (64.4% versus 38.1%, respectively). Conclusions: Boys with gender identity disorder show a high rate of co-occurring traits of separation anxiety. Reasons for this linkage require additional empirical study.


A decade ago, Coates and Person (1985) advanced the notion that separation anxiety played a causal role in the development of gender identity disorder (GID) in boys. In part, their claim was based on the finding that of 25 boys (mean age, 7.4 years) with a DSM-III diagnosis of gender identity disorder of childhood, 15 (60%) boys also met the DSM-III criteria for separation anxiety disorder (SAD). In general, Coates and Person (1985) argued that separation anxiety was activated by various familial factors, including pervasive parental psychopathology, marital discord, and reactions to stressful life events, which left the mothers unpredictably available to their sons. According to Coates and Person (1985), the separation anxiety preceded the boys' feminine behavior, which then emerged in order "to restore a fantasy tie to the physically or emotionally absent mother. In imitating 'Mommy' [the boy] confuse[s] 'being Mommy' with 'having Mommy.' [Cross-gender behavior] appears to allay, in part, the anxiety generated by the loss of the mother" (p. 708).

Unfortunately, there are several methodological and interpretive cautions regarding Coates and Person's (1985) data on separation anxiety. Although the presence of separation anxiety was determined using DSM-III criteria (American Psychiatric Association, 1980), the interview procedure was not described and information on interrater reliability was not provided. Moreover, the diagnoses of SAD and GID were made concurrently at the time of the boys' assessment; thus, the claim for a temporal relation between the two diagnoses was a clinical impression rather than one based on longitudinal evidence. Even if the temporal relation is accurate, Marantz and Coates (1991) subsequently noted that it is not entirely clear why feminine behavior should follow the emergence of separation anxiety, since not all boys with SAD develop GID.
and not all boys with GID develop SAD. In other words, the “choice of symptoms” to cope with separation anxiety is not readily apparent.

Despite these methodological and interpretive problems, Coates and Person’s (1985) diagnostic impression regarding the high rate of separation anxiety among boys with GID is consistent with the more general finding that these boys show a predominance of internalizing psychopathology on measures such as the Child Behavior Checklist (CBCL) (Zucker and Bradley, 1995).

The primary aim of the present study was to evaluate more thoroughly the presence of separation anxiety in boys referred for potential problems in their gender identity development. To assess the relation between separation anxiety and GID, we used an “internal” control group by dividing boys referred for potential problems in their gender identity development into two diagnostic subgroups: one that met the complete DSM criteria for GID and one that did not. If there is a relation between SAD and GID, we hypothesized that boys who met the complete criteria for GID would be more likely to manifest traits of SAD than would boys who did not meet the complete criteria. A secondary aim of the study was to evaluate the concurrent validity of our measure of separation anxiety by correlating it with two measures of general behavioral psychopathology—the CBCL (Achenbach and Edelbrock, 1983) and the Teacher’s Report Form (TRF) (Achenbach and Edelbrock, 1986)—that relied on multiple informants (mother, father, teacher). We were particularly interested in seeing whether or not our measure of separation anxiety would correlate more strongly with the “internalizing” dimensions than with the “externalizing” dimensions of the CBCL and the TRF, given that separation anxiety is generally understood to be a specific form of internalizing psychopathology.

METHOD

Subjects

Over an 8.5-year period beginning in January 1987, one hundred twenty-seven boys were referred to, and then assessed in, a clinic specializing in gender identity problems in children and adolescents, which was housed in a children’s department within a psychiatric research institute in Toronto. Referrals were initiated either by parents or at the suggestion of professionals (e.g., family physician, teacher, etc.).

Of the 127 boys, 115 (90.5%) had the necessary data to be included in the present study (reasons for the exclusion of the remaining 12 boys are noted below). For the participating boys, parent interview information was used to determine whether they met the complete DSM-III-R (American Psychiatric Association, 1987) diagnostic criteria for gender identity disorder of childhood (for details of the diagnostic procedure and its reliability, see Bradley et al., 1980; Zucker et al., 1984). The diagnosis was made prior to, and without knowledge of, the concurrent assessment of separation anxiety.

The boys were, on average, 6.3 years old (SD = 2.0) at the time of assessment. They had a mean IQ of 108.6 (SD = 14.0). On Hollingshead’s (1975) Four Factor Index of Social Status (absolute range, 8 to 66), the mean was 45.3 (SD = 13.5). Eighty-eight (76.5%) of the boys lived in “intact” two-parent families; the remaining 27 (23.5%) boys lived with their mothers or in a “reconstituted” family (e.g., mother and stepfather).

Assessment of Separation Anxiety

When we began the study, we were not satisfied with existing measures of separation anxiety; for example, although some structured interviews, such as the Diagnostic Interview for Children and Adolescents (Herjanic and Reich, 1982) and the Interview Schedule for Children (M. Kovacs, unpublished), contained questions on separation anxiety, they did not cover all of the items described in DSM-III. (Other, more comprehensive assessment techniques, such as the Anxiety Disorders Interview Schedule for Children (Silverman and Nelles, 1988), became available after our study had begun.) Thus, we decomposed the DSM-III criteria for SAD into 21 structured interview questions that could be answered by mothers as “Yes,” “Sometimes,” or “No” (Table 1). (In the DSM-III-R, there were only slight changes in the wording of the criteria for the items reflected in questions 1a to 8b. DSM-III-R deleted the criterion reflected in questions 9a to 9c. Readanalysis of our data with questions 9a to 9c deleted did not alter the pattern of results in any substantial manner.)

The interview schedule was administered during an individual interview with the mother, which was conducted as part of the clinical assessment, and was given at the end of that part of the interview that focused on various aspects of the boys’ development. Of the 115 interviews, 75 (65.2%) were conducted by one of two doctoral-level psychologists or a social worker; the remaining 40 (34.8%) were conducted by clinical psychology interns or psychiatry residents. One doctoral-level psychologist reviewed all of the other interviewers’ interviews pertaining to style and how to introduce the questions. Interviewers did not indicate to the mothers that the content was about separation anxiety, but simply introduced the procedure with the statement that they would now be asking “some questions that are more structured.” The mothers were instructed to make judgments about their son’s behavior for the preceding 6 to 12 months.

A “conservative” diagnosis of SAD was given if the mother answered “Yes” to questions in three of the nine content domains, as is required in the DSM-III. A “liberal” diagnosis of SAD was given if the mother answered “Sometimes” or “Yes” to questions in three of the nine content domains. For the majority of the protocols (53.9%), interscorer reliability was available from audiotape, of which 25% (n = 15) were selected at random. Across the 15 interviews, ratings were made for 315 questions. The two scorers had identical ratings for 302 (95.8%). Based on each scorer’s total ratings per subject, interscorer agreement was 100% for the final “conservative” and “liberal” diagnoses.
TABLE 1
Separation Anxiety Disorder Interview Schedule

1a. Does [name of child] worry in an unrealistic way about something harmful happening to you?
1b. Does ______ worry in an unrealistic way that you will leave and not return?
2a. Does _____ worry in an unrealistic way that he will get lost from you?
2b. Does ______ worry in an unrealistic way that he will get kidnapped?
2c. Does ______ worry in an unrealistic way that he will get killed?
2d. Does ______ worry in an unrealistic way that he will be the victim of an accident?
3a. Is ______ reluctant to go to school so he can stay with you at home?
3b. Does ______ refuse to go to school so he can stay with you at home?
4a. Is ______ reluctant to go to sleep unless you are next to him?
4b. Does ______ refuse to go to sleep unless you are next to him?
4c. Is ______ reluctant to sleep away from home (friend or relative) because he wants to remain with you at home?
4d. Does ______ refuse to sleep away from home (friend or relative) because he wants to remain with you at home?
5a. Does ______ avoid being alone (e.g., playing) at home because he wants to be with you?
5b. Does ______ get upset if he cannot follow you around the house?
6. Does ______ have repeated nightmares involving the theme of separation from you?
7. Is ______ on school days, does ______ complain of physical problems like stomachaches, headaches, nausea, or vomiting?
8a. When ______ knows that the two of you are going to be separated (e.g., when you leave for work or go out for the evening, etc.), does ______ get very upset?
8b. When the two of you are separated (e.g., when you leave for work or go out for the evening, etc.), does ______ get very upset?
9a. When ______ is not with you, does he seem to be withdrawn?
9b. When ______ is not with you, does he seem to be sad?
9c. When ______ is not with you, does he seem to be having a hard time concentrating on his schoolwork or in his play?

Note: The nine content domains reflect the DSM-III criteria for separation anxiety disorder (American Psychiatric Association, 1980, p. 53).

Data on separation anxiety were not available for the 12 remaining boys: 4 were not living with their mothers, 1 mother did not understand English, 5 families chose not to complete the assessment after it began, 1 boy was excluded because he did not show any behavioral characteristics of GID and was thus considered a false-positive referral, and 1 mother was not administered the interview.

Assessment of General Behavioral Psychopathology

The Internalizing and Externalizing T scores from the CBCL and the TRF were used as measures of general behavioral psychopathology. Data were available from all mothers, 99 fathers, and 78 teachers. Mothers not living with their sons and who did not participate in the assessment accounted for all of the missing data. Missing data from teachers were for one of two main reasons: parents not wanting their son's teacher to complete the questionnaire or boys who were not yet in school. In one other instance, the form was not returned by the teacher.

Statistical Analyses

The relation between GID and SAD was analyzed with the χ² test. The relation between SAD and measures of general behavioral psychopathology was analyzed with Pearson correlations, partialed out demographic variables that were associated with either or both of these variables. All p values were based on two-tailed tests.

RESULTS

Psychometric Properties and Descriptive Statistics

We calculated the internal consistency of our interview schedule for SAD, which yielded an acceptable Cronbach's α of .78.

Table 2 shows the percentage of mothers who answered “Yes,” “Sometimes,” or “No” to each of the 21 questions. Dummy values were assigned to each question, where Yes = 2, Sometimes = 1, and No =
0. Across the 21 questions (absolute range, 0 to 42), the mean sum was 5.8 (SD = 5.2; range, 0 to 22).
Since the number of items for each content area ranged from 1 to 4, we also calculated a weighted sum by deriving a mean score for each of the nine content areas of the interview schedule (Table 1). Across the nine content areas (absolute range, 0 to 18), the weighted mean sum was 2.5 (SD = 2.2; range, 0 to 9.7).
It can be seen from Table 2 that at least 20% of the mothers provided responses of either “Sometimes” or “Yes” to 7 of the 21 questions. In descending order, these involved worrying about something harmful happening to mother (1a, 47.0%), reluctance to go to sleep unless mother is nearby (4a, 38.2%), reluctance to go to school (3a, 34.7%), being upset prior to a separation from mother (8a, 32.2%), somatic complaints on school days (7, 29.6%), worry that mother will leave and not return (1b, 27.0%), and avoidance of being alone at home in order to be with mother (5a, 22.6%).

Relation between Gender Identity Disorder and Separation Anxiety Disorder

Of the 115 boys, 73 (63.5%) were judged to meet the DSM-III-R diagnostic criteria for GID; the remaining 42 (36.5%) all showed signs of GID but did not meet the complete criteria. Of the 73 boys who met the complete criteria, 17 (23.3%) met the conservative criterion for SAD, compared to 4 (9.5%) of the 42 boys who did not meet the complete criteria for GID, a difference that was not significant ($\chi^2[1] = 2.52, p = .112$). Using the liberal criterion, however, there was a significant association between the presence of GID and SAD. Of the 73 boys who met the complete criteria for GID, 47 (64.4%) met the criterion for SAD, compared to 16 (38.1%) of the 42 boys who did not meet the complete criteria for GID ($\chi^2[1] = 6.41, p = .01$).

There were no significant differences in age, IQ, and parents' social class between the boys who met the liberal criterion for SAD and those who did not; however, the boys who met the liberal criterion were significantly more likely to come from a mother-only or “reconstituted” family than the boys who did not (34.8% versus 9.6%, respectively; $\chi^2[1] = 8.8, p = .003$).

The boys who met the complete DSM-III-R criteria for GID were significantly younger than the boys who did not (5.5 years versus 7.6 years, respectively; $t[113] = 6.4, p < .001$), but there were no significant differences in IQ and parents' social class and marital status.

Given that parent's marital status was associated with the liberal diagnosis of SAD and the child’s age was associated with the diagnosis of GID, we evaluated these influences further by two logistic regression analyses using a forward stepwise method of selecting variables, with an entry criterion of $p < .05$.

In the first analysis, there were three predictor variables (whether or not the child met the complete criteria for GID, age, and parent’s marital status); the criterion variable was whether or not the child met the liberal criterion for SAD. With marital status and GID mutually controlled, both variables predicted whether or not the child met the liberal criterion for SAD (respective $p$ values = .0013 and .0032). Age was not a significant predictor. The final equation indicated that the child’s age decreased the odds of a diagnosis of GID by a factor of 0.5 (for each year of age), whereas the diagnosis of SAD increased the odds of a diagnosis of GID by a factor of 6.3 and 3.7, respectively.

In the second analysis, there were three predictor variables (whether or not the child met the liberal criterion for SAD, age, and parent’s marital status); the criterion variable was whether or not the child met the complete criteria for GID. With age and SAD mutually controlled, both variables predicted whether or not the child met the diagnostic criteria for GID (respective $p$ values = .0001 and .0048). Marital status was not a significant predictor. The final equation indicated that the child’s age decreased the odds of a diagnosis of GID by a factor of 0.5 (for each year of age), whereas the diagnosis of SAD increased the odds of a diagnosis of GID by a factor of 4.

Correlations between Separation Anxiety Total Score and General Measures of Behavioral Psychopathology

For each boy, the weighted sum of the separation anxiety interview schedule was correlated with the broad-band Internalizing and Externalizing $T$ scores for mother, father, and teacher ratings on either the CBCL or TRF. Preliminary analyses showed that the four demographic variables of age, IQ, social class, and marital status were significantly correlated with at least one of the two variables (at $p < .05$); thus, correlations were calculated with the demographic variables partialled out.
Table 3 shows the Pearson correlations between the separation anxiety score and the Internalizing and Externalizing T scores, respectively. For the maternal CBCL data, the separation anxiety score was significantly correlated with both the Internalizing and Externalizing T scores, although the relation was somewhat stronger with the Internalizing T score. For the paternal CBCL data, however, the converse was found: the separation anxiety score was not significantly related to the Internalizing T score, but approached statistical significance for the Externalizing T score. For the TRF data, the separation anxiety score approached statistical significance for the Internalizing T score and was significantly correlated with the Externalizing T score.

Table 4 shows the correlations between the weighted sum separation anxiety score and the narrow-band factors of the CBCL for both mothers and fathers. For these analyses, the data are presented separately for the 4- through 5-year-old and 6- through 11-year-old age groupings of the CBCL, which have different narrow-band factors.

Preliminary analyses evaluated whether or not the four demographic variables of age, IQ, social class, and marital status were correlated with either or both of the variables. When the simple Pearson correlations were significant (at \( p < .05 \)), the demographic variables were partialed out.

For the maternal CBCL data for 4- through 5-year-olds, the separation anxiety score correlated significantly with all four of the Internalizing narrow-band factors (Social Withdrawal to Somatic Complaints) and approached significance for two of the Internalizing narrow-band factors by paternal report. In contrast, the...
separation anxiety score correlated significantly with only one of the three Externalizing narrow-band factors (Schizoid to Delinquent) by maternal report; however, two of the three Externalizing narrow-band factors were significantly correlated with the separation anxiety score by paternal report and the third approached statistical significance. For the 6- through 11-year-olds, none of the correlations were significant for both the mothers and the fathers.

Table 4 also shows the correlations between the separation anxiety score and the narrow-band factors of the TRF. It can be seen that the separation anxiety score correlated significantly with one of the two Internalizing narrow-band factors (Social Withdrawal), approached significance for one of the three mixed-band factors (Self-Destructive), and correlated significantly with one of the three Externalizing narrow-band factors (Aggressive) and approached significance for Inattentive.

**DISCUSSION**

In previous work, we have shown that, within a population of children referred for potential problems in their gender identity development, the diagnosis of GID of childhood can be made reliably; in addition, we have provided validity evidence for the diagnosis by showing that on other measures of childhood sex-typed behavior, the subgroup of children who met the complete criteria for GID showed more cross-gender behavior (or less same-sex behavior) than children who did not meet the complete criteria (Zucker and Bradley, 1995; Zucker et al., 1984).

In the present study, we found that the interview schedule for SAD had good internal consistency, a necessary requirement in considering that the nine different symptom areas indexed an underlying construct, namely separation anxiety. In addition, reliability checks on the subset of audiotaped interviews showed excellent interrater reliability, indicating that the mothers were quite able to provide unambiguous responses using the options of “Yes,” “Sometimes,” or “No.”

The main purpose of the present study was to test the hypothesis that there would be a relation between SAD and GID, as proposed by Coates and Person (1985). Using the conservative criterion for SAD, its association with GID was in the predicted direction, but not statistically significant; however, when using the liberal criterion for SAD, it was significantly more common among the boys who met the complete diagnostic criteria for GID. In fact, the percentage of boys who met this criterion for SAD—64.4%—was closely comparable with the percentage of 60% reported by Coates and Person (1985); however, as noted earlier, the precise manner in which this diagnosis was assessed had not been clearly described by these authors.

**Methodological and Interpretive Issues**

As noted earlier, age was related to the diagnosis of GID and marital status was related to the liberal diagnosis of SAD. The two logistic regression analyses showed, however, that the relation between the diagnoses was not confounded by their respective associations with these two demographic variables. The relation between SAD and parent’s marital status does, however, deserve some comment, since living only with the mother or in a “reconstituted” family resulted in a sixfold increase in the odds of meeting our liberal criterion for SAD.

Unfortunately, the epidemiological literature on SAD contains little information on demographic correlates. In a study of children referred to an anxiety disorders clinic, Last et al. (1987) found that children who met criteria for SAD using the Interview Schedule for Children (M. Kovacs, unpublished) were more likely to be from lower socioeconomic status than children who met criteria for overanxious disorder. Last et al. also found that the former diagnostic group was significantly younger than the latter diagnostic group, but did not control for this age difference in evaluating the social class effect. Given that social class and parent’s marital status tend to be correlated in clinical populations, it is unfortunate that Last et al. did not have a demographic measure of the parent’s marital status in their study. In the present study, social class and marital status were significantly correlated at $r = -0.52, p < .001$, indicating a higher rate of single mothers or nonintact families from lower social class backgrounds. However, social class was unrelated to the presence or absence of the liberal diagnosis of SAD. In future epidemiological studies of SAD, it would appear important to explore further the influence of parent’s marital status, since it may well be a risk factor for SAD’s occurrence.
It should be recognized that the rate of separation anxiety using the liberal criterion was quite high across both subgroups of gender-referred boys, well above known prevalence rates for this disorder in the general population (Tonge, 1994). Because our operational definition of SAD was a liberal one, it would be prudent to interpret the data as reflecting the assessment of separation anxiety traits rather than a rigorous assessment of disorder; however, this caveat in no way compromises the finding that such traits were more common in the boys who met the complete criteria for GID.

Because the mothers served as an informant for both diagnoses, it is possible that the significant association could be explained as an artifact of a maternal response bias, namely to either overreport or underreport symptoms of both diagnoses. As noted earlier, we have previously provided external validity evidence for the GID diagnosis, which included information not provided by the mothers (Zucker and Bradley, 1995; Zucker et al., 1984); thus, we are reasonably confident in the validity of the diagnosis of GID derived from clinical interview data.

In the present study, the weighted sum of maternally reported separation anxiety traits correlated more strongly with maternal CBCL Internalizing T scores than with Externalizing T scores (and their respective narrow-band factors, particularly in the 4- through 5-year-old age grouping), which would be expected given that separation anxiety is understood to be an internalizing trait. In contrast, the paternal CBCL data and the TRF data provided only mixed or weak evidence of concurrent validity (Nunnally, 1978) for the maternal data pertaining to separation anxiety. For example, the CBCL data provided by fathers showed significant correlations between the measure of separation anxiety and both the Internalizing and Externalizing narrow-band factors for the 4- through 5-year-old grouping, but the correlations were stronger for the Externalizing narrow-band factors. Moreover, there were no significant correlations at all for the 6- through 11-year-old grouping.

Overall, then, the correlational patterns were not solely related to internalizing psychopathology on the CBCL and TRF. Although this was not anticipated, it should be recognized that the relative lack of informant convergence (e.g., mother-child; mother-teacher) is the rule, rather than the exception, in the broader literature on anxiety disorders, even when the same measure is used (see, e.g., Klein, 1991). It is interesting that, in the general literature on SAD, there appears to be virtually no systematic research that has examined the extent to which mothers and fathers agree in reporting symptoms of separation anxiety on structured interview schedules, although the more general literature on parent report of internalizing behavioral psychopathology shows reasonably strong correlations between parents, which we also found on the CBCL (Table 3).

A limitation of our study is that we did not use a clinical control group of boys referred for reasons other than GID. In future research, it would be desirable to compare the rate of separation anxiety traits in boys with GID with such clinical controls. Nevertheless, the use of an internal control group in the present study appears to provide preliminary evidence in support of Coates and Person’s (1985) finding that traits of separation anxiety are overrepresented in boys who meet complete diagnostic criteria for GID.

Clinical Implications

Our study did not address the claim advanced by Coates and Person (1985) about the putative temporal relation between separation anxiety and GID. To address this matter properly, longitudinal data would be required. Unfortunately, such data will be difficult to come by since, in principle, one would want to start with a cohort prior to the emergence of either disorder. Given the general agreement that the prevalence of GID is uncommon (Zucker and Bradley, 1995), the feasibility of such a study would be rather formidable.

To explore further the relation between SAD and GID in a more feasible manner, one strategy might be to explore retrospectively the age of onset of the symptoms of both separation anxiety and GID. Perhaps the age of onset of separation anxiety differs between boys with GID and boys with SAD who do not show symptoms of GID. If cross-gender behavior is truly a form of coping with separation anxiety, then one might predict that boys with GID would begin to manifest traits of separation anxiety prior to the typical emergence of symptoms of GID, which often begin after the second birthday (Green, 1976), whereas this would be less likely among boys with separation anxiety who show no manifestations of GID. Of course, it would also be important to document that manifestations of
separation anxiety during this developmental period were more excessive than one would ordinarily expect.

At present, however, the more simple question of why there is a concurrent association between traits of separation anxiety and GID requires explanation. As noted earlier, we have shown that boys with GID, on average, manifest more internalizing than externalizing psychopathology (Zucker and Bradley, 1995). If separation anxiety is viewed as one form of internalizing psychopathology, then whatever factors predispose boys with GID to manifest internalizing psychopathology in general may also predispose them to manifest traits of separation anxiety in particular. Such factors might include both parental and child characteristics that predispose to internalizing disorders, such as certain types of psychiatric disorder in the parents and certain types of temperament characteristics in the boys themselves (for a consideration of such variables, see Coates and Wolfe, 1995; Green, 1987; Zucker and Bradley, 1995).

Finally, it would be useful to study boys with SAD who do not manifest traits of GID. Such work could test the hypothesis that factors that predispose to GID would be less prevalent in boys with SAD who do not show signs of GID. Such a study requires a clear understanding of these predisposing factors; unfortunately, knowledge of such factors remains poorly understood (Zucker and Bradley, 1995), so much more work on this critical issue remains to be done.

From a clinical perspective, the results of our study indicate the importance of ascertaining the presence of associated psychopathology in boys with GID, including traits of separation anxiety. As we have shown in detail elsewhere (Zucker and Bradley, 1995), boys with GID show, on average, as much general psychopathology as do demographically matched boys referred for other clinical problems, although such psychopathology is biased toward internalizing symptomatology (see also Bates et al., 1979; Rekers and Morey, 1989). Although we have argued that the role of such psychopathology in the genesis of GID remains unclear, recognition that boys with GID may display other types of behavioral difficulties is important in developing effective strategies of therapeutic care.

REFERENCES

Green R (1976), One-hundred test feminine and masculine boys: behavioral contrasts and demographic similarities. Arch Sex Behav 5:225–446
Hollingshead AB (1975), Four Factor Index of Social Status. New Haven, CT: Yale University Department of Sociology