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The Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults

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The present study reports on the construction of a dimensional measure of gender identity (gender dysphoria) for adolescents and adults. The 27-item gender identity/gender dysphoria questionnaire for adolescents and adults (GIDYQ-AA) was administered to 389 university students (heterosexual and nonheterosexual) and 73 clinic-referred patients with gender identity disorder. Principal axis factor analysis indicated that a one-factor solution, accounting for 61.3% of the total variance, best fits the data. Factor loadings were all $\geq$.30 (median, .82; range, .34–.96). A mean total score (Cronbach's alpha, .97) was computed, which showed strong evidence for discriminant validity in that the gender identity patients had significantly more gender dysphoria than both the heterosexual and nonheterosexual university students. Using a cut-point of 3.00, we found the sensitivity was 90.4% for the gender identity patients and specificity was 99.7% for the controls. The utility of the GIDYQ-AA is discussed.

Gender identity (or core gender identity) has been defined as a person's basic sense of self as a male or female (Stoller, 1964a). Because most males have a male gender identity and most females have a female gender identity (in accordance with one's original legal sex and usually based on the appearance of the genitalia at birth), gender identity often is conceptualized in a bipolar, dichotomous manner with a male gender identity at one pole and a female gender identity at the other pole. Individuals who have an uncertain or confused gender identity or who are transitioning from one gender to the other, however, do not fit into this dichotomous scheme.

For patients who experience subjective distress (gender dysphoria) regarding their gender identity, the *DSM* (American Psychiatric Association, 2000) has adopted a categorical nosological perspective, in the sense that a person does or does not meet the criteria for gender identity disorder (GID). Of course, one could create a dimensional measure from the *DSM* criteria for GID by counting, for a particular patient, the number of indicators that are present, but this has not been common practice in either the clinical or research literature. More than 30 years ago, when Fisk (1973) coined the term gender dysphoria, it was apparent that this construct could be conceptualized dimensionally and, if appropriately operationalized, would hold great promise in assessing the degree to which an individual is struggling with his or her gender identity (vis-à-vis one's birth sex).

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In the normative developmental literature, gender identity mainly has been operationalized with regard to cognitive milestones, such as the ability to correctly self-label oneself as a boy or as a girl (Slaby & Frey, 1975), with much less attention given to affective appraisals. Zucker et al. (1993), however, developed a gender identity interview for children (GIIC), a dimensional measure, that was designed to assess both cognitive and affective gender identity confusion. A factor analysis confirmed a two-factor structure to the GIIC, and both factors significantly discriminated clinic-referred children with gender identity problems from controls (see also Meyer-Bahlburg et al., 2004, and Jürgensen, Hampel, Hiort, & Thyen, 2006).

Unfortunately, only a few studies have attempted a dimensional assessment of gender identity/gender dysphoria in adolescent and adult populations. In one study, Docter and Fleming (2001) reported on a dichotomously answered 113-item questionnaire, originally termed the cross-gender questionnaire (Docter & Fleming, 1992), which included items pertaining to gender identity and gender dysphoria in biological males. It was administered to 61 male-to-female (MtF) transsexuals and 455 transvestites. Docter and Fleming (2001) identified a 5-factor solution, of which one factor (26 items) was labeled "transgender identity." On this factor, the MtF transsexuals had a significantly higher mean scale score than did the transvestites. A number of the items on this factor would not, however, be applicable to biological females and, to date, this questionnaire has not been given to nonclinical comparison groups. Cohen-Kettenis and van Goozen (1997) reported on the psychometric properties of the unpublished Utrecht gender dysphoria scale (GDS; in Dutch), which consists of 12 questions rated on a 5-point scale. They reported that the total score successfully discriminated male and female transsexuals from same-sex controls, although information on specificity and sensitivity was not provided (see also Doorn, Kuiper, Verschoor, & Cohen-Kettenis 1996).

At present, there are a number of reasons why it would be important to have a dimensional measure of gender identity/gender dysphoria for both adolescents and adults. First, although GID has a very low prevalence (American Psychiatric Association, 2000), some clinicians have argued that there has been a recent increase in the number of individuals who identify as "transgendered" (Feldman & Bockting, 2003), although at least some of these individuals do not express a desire for complete sex-reassignment surgery, that is, both contrasex hormonal treatment and genital surgery. Thus, such individuals might be subthreshold for the *DSM* diagnosis of GID.

One example of this is reflected in the recently described phenomenon of "tranny boys" among young lesbian women (McCarthy, 2003; Rochman, 2006). In these women, there appears to be a desire for "partial" sex reassignment (e.g., mastectomy, but not masculinizing hormone treatment or vice versa). In a similar vein, a study by Lee (2001) found that there was a great deal of overlap in feelings of "anatomic dysphoria" among female-to-male transsexual women and self-identified "butch" lesbians. Second, in the literature on adults with physical intersex conditions (disorders of sex development; see Hughes, Houk, Ahmed, Lee, & LWPES/ESPE Consensus Group, 2006), there is evidence for variation in long-term gender identity outcome, both within and across syndromes (Zucker, 1999). Among chromosomal females with congenital adrenal hyperplasia, for example, the majority appear to differentiate a gender identity consistent with their gender assignment and rearing (for review, see Dessens, Slijper, & Drop, 2005), but a small minority develop full-blown gender dysphoria and request a gender change (see, e.g., Meyer-Bahlburg et al., 1996). In other conditions, such as 5-alpha-reductase 2 deficiency (Cohen-Kettenis, 2005) or in genetic males with cloacal exstrophy (Meyer-Bahlburg, 2005), gender dysphoria and gender change are much more common. Even among those patients who appear to differentiate a gender identity consistent with their neonatal gender assignment, it is unclear to what extent their long-term gender identity is comparable with that of biologically normal males or females or if they show more subtle signs of gender dysphoria, i.e., subthreshold for a complete *DSM* diagnosis of GID (e.g., Hird, 2003; Oppenheimer, 1995; Stoller, 1964b).

To address these contemporary applied and basic research issues in relatively rare clinical populations, we developed a new measure, the gender identity/gender dysphoria questionnaire for adolescents and adults (GIDYQ-AA), which was designed to assess gender identity (gender dysphoria) dimensionally. In developing this measure, we conceptualized gender identity/gender dysphoria as a bipolar continuum with a male pole and a female pole and varying degrees of gender dysphoria, gender uncertainty, or gender identity transitions between the poles. Item formulations for such a measure are, however, less contrived and easier to understand if they are based in relation to the individual's birth sex (male or female). Thus, our operationalization of the gender identity/gender dysphoria construct resulted in one questionnaire for each of the two sexes, but with parallel items.

For scale development and tests of discriminant validity, we utilized a sample of males and females who we expected to be heterogeneous with regard to their gender identity (including variation in gender dysphoria). More specifically, we expected that heterosexual men and women would be mostly at the male and female poles, respectively, of a gender identity/gender dysphoria dimension, self-labeled bisexual/homosexual men and women at a moderately intermediate status, and gender-dysphoric patients distributed the farthest away from the poles representing their birth sex.

Method

Participants

A total of 462 participants (197 males, 265 females) were enrolled in the study, which was advertised as a study of ''gender development.'' Of these, 389 were primarily university students. The majority of the university students, unselected for their gender identity or sexual orientation, were recruited from a first-year undergraduate psychology course at the University of Toronto (Mississauga Campus). The remainder of the university-based participants were recruited through the e-mail lists of lesbian, gay, bisexual, transgendered, and queer (LGBTQ) student groups from all three campuses of the University of Toronto (Mississauga, Scarborough, and St. George). These participants received either a research credit in their psychology course or a $5 remuneration.

On a demographic questionnaire, the participants reported their biological (birth) sex, age (in years), ethnicity, if English was their first language, self-labeled gender identity, and self-labeled sexual orientation. For self-labeled gender identity, there were four response options: man, woman, transgender, or other. For self-labeled sexual orientation, there were six response options: exclusively heterosexual (straight), bisexual, exclusively homosexual (gay/lesbian or queer), asexual, unlabeled (questioning or unsure), or other (with provision for comment).

On the basis of self-labeled sexual orientation, the participants were classified as heterosexual ($n = 304$) or nonheterosexual (homosexual, bisexual, unlabeled, other; $n = 76$). Of the 76 nonheterosexual participants, 67 (88.1%) self-labeled as homosexual ($n = 49$) or bisexual ($n = 18$) and the other 9 self-labeled as unlabeled or other. Nine additional participants (3 males, 6 females) were not classified regarding their sexual orientation because they labeled their gender identity as either transgender ($n = 6$) or other ($n = 3$); however, these participants were retained in the factor analysis (see below).

A second group of participants consisted of either adolescent ($n = 34$) or adult ($n = 39$) patients (51 males, 22 females) who were assessed for gender dysphoria at the Centre for Addiction and Mental Health (CAMH). The adolescent patients represented consecutive referrals to the Gender Identity Service for children and adolescents, which is housed within the Child, Youth, and Family Program. The adult patients were recruited from the Adult Gender Identity Clinic, which is housed within the General Psychiatry Program at CAMH. For the adult patients, there was one inclusion criterion, which was that the patient had been seen either for a new assessment or for a follow-up appointment within the last year. Two potential patients were excluded because they already had received at least one form of physical surgery (e.g., mastectomy in biological females, vaginoplasty in biological males). During the period of data collection, a total of 58 potential participants were identified. Of these, 14 could not be traced (e.g., the patient had moved and we were unable to identify a current telephone number, mailing address, e-mail address, etc.). Of the 44 patients who could be traced, 2 declined to participate and 3 patients did not return questionnaires, yielding a participation rate of 88.6%. For both the adolescent and adult patients, demographic information was obtained as described above. The adult patients received $10 for their participation.

All of the patients were diagnosed by the attending clinician as meeting the *DSM-IV* criteria for GID. For a variety of reasons, the sexual orientation of gender-dysphoric patients is usually classified with regard to their birth sex. Blanchard (1989) has noted that the vast majority of biological females with gender dysphoria have a homosexual sexual orientation, that is, they are sexually attracted to other biological females, whereas biological males show a more varied sexual orientation (heterosexual, bisexual, or asexual; see also Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005a). Using interview data extracted from the patients' clinical records, we classified 21 of the biological females as having a homosexual sexual orientation and only 1 had a heterosexual sexual orientation, whereas 14 of the biological males were classified as having a homosexual sexual orientation and 37 were classified as having a heterosexual or bisexual sexual orientation.

The demographic characteristics of the university students and patient samples are shown in Table 1. We tested for demographic differences in two ways: first, we examined the demographic variables of age, ethnicity, and English as a first language in the student sample as a function of both sex and sexual orientation; second, we compared the gender identity patients (by sex) with both the heterosexual and nonheterosexual university sample (again by sex). Because these comparisons yielded significant differences for all three demographic variables, they were covaried, where appropriate, in the parametric analyses reported below.

Measure and Procedure

The GIDYQ-AA consisted of 27 items pertaining to gender identity and gender dysphoria (Appendix). The items were developed by the North American Task Force on Intersexuality Research Protocol Working Group (S. J. Kessler, H. F. L. Meyer-Bahlburg, J. M. Schober, and K. J. Zucker). They were generated based on clinical experience in working with patients with gender dysphoria (both with and without somatic intersexuality), the *DSM-IV-TR* criteria for GID, and wording modifications from both Cohen-Kettenis and van Goozen (1997) and Docter and Fleming (2001). An effort was made to capture a range of subjective ($n = 13$ items), social ($n = 9$ items), somatic ($n = 3$

Table 1. *Demographic Characteristics*

	University-Based Participants				Gender Identity Patients	
	Males		Females		Males	Females
Demographic Variables	Heterosexual ($n = 104$)	Nonheterosexual ($n = 39$)	Heterosexual ($n = 200$)	Nonheterosexual ($n = 37$)	($n = 51$)	($n = 22$)
Age (in years)						
M	19.27	24.72	19.08	21.49	31.98	23.36
SD	1.32	6.16	2.07	2.79	15.36	11.52
Range	18–25	18–52	18–45	18–30	13–61	13–54
Ethnicity N (%)						
White (European)	47 (45.2)	28 (71.8)	102 (51.0)	25 (67.6)	43 (84.3)	14 (63.6)
East or South Asian	41 (39.4)	4 (10.3)	58 (29.0)	8 (21.6)	4 (7.8)	5 (22.7)
Other[a]	16 (15.4)	7 (17.9)	40 (20.0)	4 (10.8)	4 (7.8)	3 (13.6)
English First Language N (%)						
Yes	67 (64.4)	35 (89.7)	130 (65.0)	30 (81.1)	44 (86.3)	18 (81.8)
No	37 (35.6)	4 (10.3)	70 (35.0)	7 (18.9)	7 (13.7)	4 (18.2)

[a]Categories included Black, First Nations, Hispanic or Latino, and other.

items), and sociolegal ($n = 2$) indicators of gender identity/gender dysphoria that could be answered in parallel form by both males and females. Each item was rated on a 5-point response scale, with the past 12 months as the time frame. The response options were *Always* (coded as 1), *Often* (2), *Sometimes* (3), *Rarely* (4), or *Never* (5).

For the majority of university students, a consent form, the demographic information form, and the GIDYQ were completed online using SurveyMonkey.com (http://www.surveymonkey.com). Following the completion of the study, a debriefing letter that described the purpose of the study was provided. For all of the adolescent patients, hard copy questionnaires were completed as part of their assessment in the Gender Identity Service. Adult patients completed the materials online or received hard copy in the mail, with a stamped, self-return envelope. The study was approved by the research ethics board at the CAMH and the undergraduate research ethics committee at the Department of Psychology at the University of Toronto at Mississauga.

We analyzed the data with the Statistical Package for Social Sciences (SPSS) Versions 11.5 and 14.0.

Results

As recommended by Comrey (1978), preliminary analyses evaluated the suitability of the data for factor analysis. The Kaiser–Meyer–Olkin measure of sampling adequacy was .97, and Bartlett's test of sphericity was significant at $p < .001$, indicating the suitability of the data for factor analytic procedures. Principal axis factor analysis was performed on the data. We explored an unrestricted factor solution and various forced solutions. The scree plot is shown in Figure 1. The results of these analyses indicated that a one-factor solution best fit the data (eigenvalue = 16.54). Table 2 shows that all 27 items had a factor loading $>.30$ (median, .82; range, .34–.96), accounting for 61.3% of the total variance (Cronbach's alpha = .97).[1] As shown in Table 2, corrected item-total correlations ranged from .33 to .94 (median, .81). A participant's GIDYQ scale score was calculated by summing his or her scores on the 27 (unit-weighted) items and dividing by 27. If a rating for an item was missing (e.g., on item 7, the participant reported not having dreams in the past 12 months or was not in his or her dreams), the denominator was modified accordingly.

Table 3 shows the mean GIDYQ scale score for the heterosexual and nonheterosexual participants and the gender identity patients as a function of sex. Effect sizes, using Cohen's *d*, also are shown in Table 3, in which the heterosexual men were used as the reference group for the nonheterosexual men and the male gender identity patients, respectively, and the heterosexual women were used as the reference group for the nonheterosexual women and the female gender identity patients, respectively. Figures 2–3 show the expected asymmetric distributions of the heterosexual and nonheterosexual groups (for males and females, respectively). The predicted intermediate status (between the heterosexual group and the gender identity patient group) was more evident for the nonheterosexual women (Figure 3) than for the nonheterosexual men (Figure 2), which also is reflected by the effect sizes reported in Table 3.

A preliminary analysis, with age, ethnicity, and English as a first language covaried, showed that these demographic variables did not have a significant effect, so the data are reported without adjustment for the

[1]Factor analyses also were performed separately by biological sex. Both factor analyses also identified one-factor solutions that accounted for 59.0% and 63.5% of the variance for males and females, respectively (factor loadings are available from the corresponding author upon request)

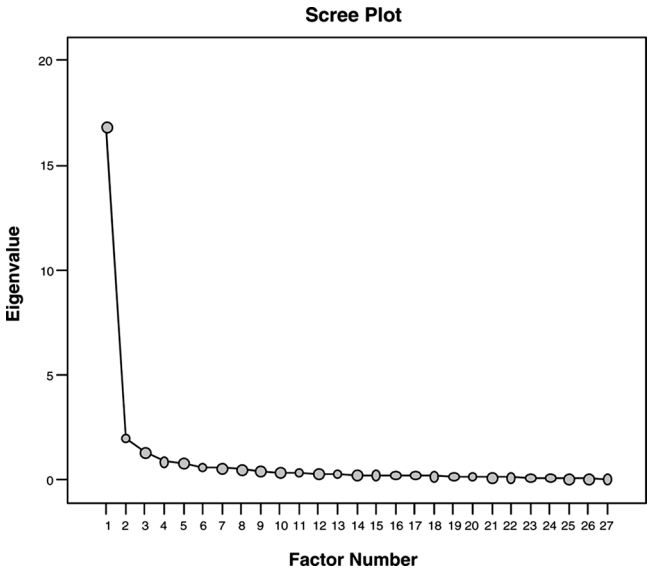

Figure 1. Scree plot for the one-factor solution.

covariates. A 2 (Sex) × 3 (Group: heterosexual, nonheterosexual, gender patients) analysis of variance revealed a significant Sex × Group interaction, $F(2, 447) = 19.40$, $p < .001$.

For both males and females, there were significant simple main effects for group (both ps $< .001$). Subsequent multiple comparisons showed that the male gender identity patients reported significantly more gender dysphoria than both the heterosexual and nonheterosexual men (both ps $< .001$); the nonheterosexual men also reported significantly more gender dysphoria than the heterosexual men ($p < .05$). The female gender identity patients reported significantly more gender dysphoria than both the heterosexual and nonheterosexual women (both ps $< .001$); the nonheterosexual women also reported significantly more gender dysphoria than the heterosexual women ($p < .001$).

Simple effects analysis also showed that the mean GIDYQ scale score did not differ significantly between the heterosexual men and women ($F < 1$); however, the nonheterosexual women reported significantly more gender dysphoria than did the nonheterosexual men ($p < .001$), and the female gender identity patients reported significantly more gender dysphoria than did the male gender identity patients ($p < .001$).

Regarding the gender-dysphoric male patients, there was no significant difference in their GIDYQ scale score as a function of sexual orientation. The homosexual gender-dysphoric patients had a mean scale score of 2.52 ($SD = .79$) and the heterosexual gender-dysphoric patients had a mean scale score of 2.57 ($SD = .37$), $F(1,48) < 1$, *ns* (with age covaried).

Visual inspection of the frequency distributions of the GIDYQ mean scores was used to consider a cut-point for specificity and sensitivity. Using a cut-point of

Table 2. *Factor Analysis of Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults*

Item	Descriptor	Factor Loading	Corrected Item-Total Correlation
10	Felt more like the opposite sex	.96	.94
21	Wise for hormone treatment	.95	.93
22	Wise for sex-reassignment surgery	.95	.93
26	Thought of self as opposite sex	.94	.93
6	Better to live as the opposite sex	.93	.92
16	Wise or desire to be opposite sex	.93	.91
5	Not feeling like they are of their current sex	.90	.88
17	Cross-dressing at home	.90	.89
8	Unhappiness with current sex	.87	.84
1	Satisfaction with current sex	.86	.83
7	Dreaming of being the opposite sex	.86	.84
12	Upset re use of current sex on official forms	.85	.84
20	Anatomic dysphoria	.85	.83
14	Strangers treat person as opposite sex	.82	.81
18	Presented self as opposite sex at parties	.82	.80
27	Thought of self as current sex	.80	.77
25	Thought of self as "transgendered person"	.78	.75
15	Friends or relatives treat person as opposite sex	.78	.76
19	Presented self as opposite sex at work or school	.76	.76
2	Uncertainty about their current sex	.58	.59
9	Uncertainty about self	.58	.59
23	Efforts to change legal sex	.58	.56
3	Pressure by others	.57	.60
4	Having to work at being their current sex	.54	.54
11	Commonality with men or women	.47	.47
24	Thought of self as "hermaphrodite" or "intersex"	.43	.45
13	Comfort with using restrooms of biological sex	.34	.33

Note. See the Appendix for the exact wording of each item.

Table 3. *Mean GIDYQ-AA Scale Scores by Group*

Group	M	SD	*d*
Heterosexual men ($n = 104$)	4.85	0.17	
Nonheterosexual men ($n = 39$)	4.72	0.28	0.76[a]
Heterosexual women ($n = 200$)	4.87	0.16	
Nonheterosexual women ($n = 37$)	4.38	0.51	3.06[b]
Male gender identity patients ($n = 51$)	2.56	0.51	13.47[a]
Female gender identity patients ($n = 22$)	2.20	0.35	16.68[b]

Note. Absolute range, 1.00–5.00.
[a]Reference group was the heterosexual men and calculated as $M_1 - M_2/SD_{\text{heterosexual men}}$.
[b]Reference group was the heterosexual women and calculated as $M_1 - M_2/SD_{\text{heterosexual women}}$.

3.00, we found that sensitivity was 90.4% for the gender identity patients and specificity was 99.7% for the controls (see Figures 2–3).

Discussion

The purpose of this study was to develop a psychometrically sound dimensional measure of gender identity (gender dysphoria) that could be used with adolescents and adults of both sexes. The factor analysis identified a strong one-factor solution (median factor loading, .86), with a very high Cronbach's alpha, that accounted for 61.3% of the variance. There was strong evidence of its discriminant validity, with very satisfactory sensitivity and specificity rates.

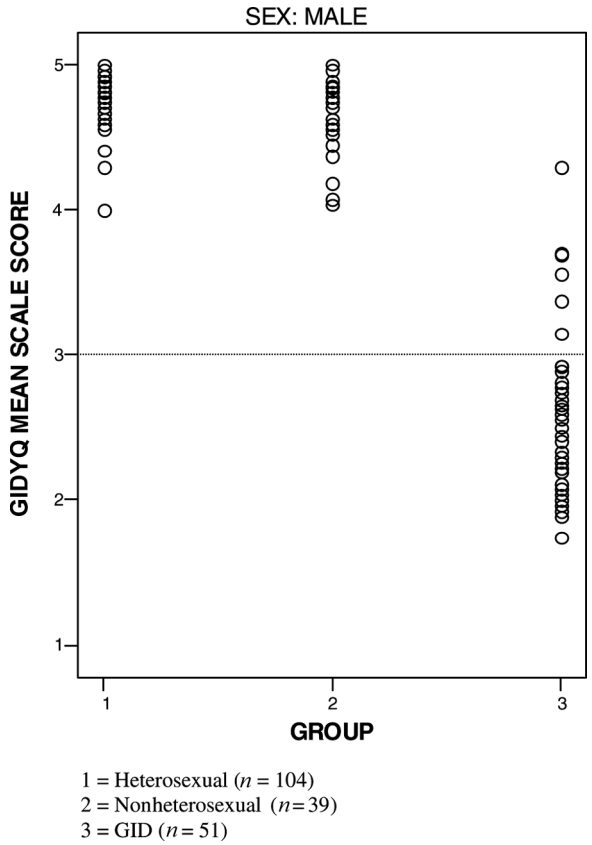

Figure 2. Frequency distribution as a function of group (males). The horizontal dotted line at 3.00 represents the cutoff score discussed in the text.

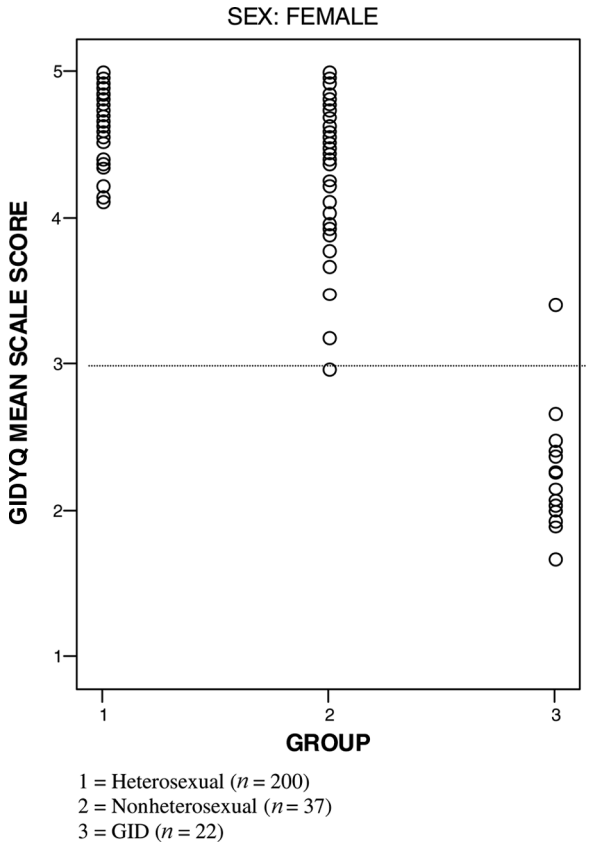

Figure 3. Frequency distribution as a function of group (females). The horizontal dotted line at 3.00 represents the cutoff score discussed in the text.

As might be expected, the university sample, consisting of both heterosexual and nonheterosexual adults, reported very little gender dysphoria. By inference, this suggests that almost all of these participants were content with their gender identity as men or as women. Because we scaled the GIDYQ to measure degree of gender dysphoria in a comparable manner across sex, the means in Table 3 do not directly reflect the largely dichotomous nature of gender identity between men and women. If, for the purpose of demonstrating sex differences in gender identity, we (arbitrarily) inverted the mean score of one sex, however, this would yield a between-sex effect size, using Cohen's *d*, of 13.24 in the heterosexual university sample. The magnitude of this effect size is considerably larger than any other known psychological or behavioral sex difference that has been reported on in the literature (see, e.g., Hyde, 2005; Zucker, 2005).

Although there were some modest differences in the mean scale scores between the heterosexual and nonheterosexual men and between the heterosexual and

nonheterosexual women, these differences probably lack any substantive clinical significance. Nonetheless, the effect size for the heterosexual men vs. the nonheterosexual men was "moderate" by Cohen's (1988) criteria, and the effect size for the heterosexual women vs. the nonheterosexual women was "large." The mean scale scores of the gender identity patients were markedly different from both the heterosexual and nonheterosexual comparison groups, and the effect sizes were substantial. Indeed, the specificity rate of 99.7% and the sensitivity rate of 90.4% suggests that the GIDYQ total score can be used to identify "caseness" if one wishes to use as a "gold standard" patients referred to a specialized gender identity clinic.

In the present study, we were able to compare the GIDYQ mean scale score of gender-dysphoric males who were either homosexual or heterosexual. Although these two subgroups have very different developmental pathways that precede their gender dysphoria in adolescence and adulthood (e.g., in their degree of cross-gender behavior during childhood; see, e.g., Blanchard, 1989; Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005a, 2005b), there was no significant difference in their GIDYQ mean scale score. This finding was consistent with Smith et al. (2005b), who also found no significant differences between homosexual and heterosexual gender-dysphoric males and females on the Utrecht GDS. Although it would be important to establish the reliability of our finding in replication studies, the similarity in degree of self-reported concurrent gender dysphoria provides support for the concept of equifinality (i.e., different starting points leading to the same outcome; see Cicchetti & Rogosch, 1996).

There are a couple of limitations to the present study that should be noted. First, it would be important to conduct a cross validation of the results with a new sample of gender identity patients compared with controls. Second, it would be useful to add as an additional comparison group a sample of patients referred for other clinical problems. If patients with other clinical problems show, on average, little evidence for gender dysphoria on the GIDYQ, this would provide further support for its specificity and not simply a reflection of more general problems.

In our view, the GIDYQ-AA appears to have both research and clinical utility in studying other specialized populations. For example, it can be used in outcome studies of adults with various physical intersex conditions as a dimensional measure of gender dysphoria. It might also be used in populations of patients with gender identity conflict and specific comorbid psychiatric conditions, such as Asperger's disorder (e.g., Gallucci, Hackerman, & Schmidt, 2005; Kraemer, Delsignore, Gundelfinger, Schnyder, & Hepp, 2005) or eating disorders (e.g., Hepp & Milos, 2002; Hepp, Milos, & Braun-Scharm, 2004; Winston, Acharya, Chaudhuri, & Fellowes, 2004), in order to assess the degree to which such patients report gender dysphoria at a level commensurate with patients referred to specialized hospital- or university-based gender identity clinics that are operative in many countries throughout North America, Central America, South America, Europe, and Asia. Because there is some evidence that adult patients who have required either gynecologic or urologic surgery because of disease states, and in whom there is an indication that this affects their sense of self as women or men (see, e.g., Elson, 2000; Kitzinger & Willmott, 2002), the GIDYQ-AA may be a useful instrument to appraise current feelings of gender identity confusion or dysphoria. It could be used also in specific psychiatric populations, such as patients with borderline personality disorder, in which identity confusion or diffusion is a primary feature. Last, we hope that the GIDYQ-AA will have research utility in studying the correlates of adolescent and adult gender identity in epidemiological samples.

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Appendix

Female Version [Response options are *Always, Often, Sometimes, Rarely*, or *Never*].

01. In the past 12 months, have you felt satisfied being a woman?
02. In the past 12 months, have you felt uncertain about your gender, that is, feeling somewhere in between a woman and a man?
03. In the past 12 months, have you felt pressured by others to be a woman, although you don't really feel like one?
04. In the past 12 months, have you felt, unlike most women, that you have to work at being a woman?
05. In the past 12 months, have you felt that you were not a real woman?
06. In the past 12 months, have you felt, given who you really are (e.g., what you like to do, how you act with other people), that it would be better for you to live as a man rather than as a woman?
07. In the past 12 months, have you had dreams?
    If NO, skip to Question 8.
    If YES, Have *you* been in your dreams?
    If NO, skip to Question 8.
    If YES, In the past 12 months, have you had dreams in which you were a man?
08. In the past 12 months, have you felt unhappy about being a woman?
09. In the past 12 months, have you felt uncertain about yourself, at times feeling more like a man and at times feeling more like a woman?
10. In the past 12 months, have you felt more like a man than like a woman?
11. In the past 12 months, have you felt that you did not have anything in common with either men or women?
12. In the past 12 months, have you been bothered by seeing yourself identified as female or having to check the box "F" for female on official forms (e.g., employment applications, driver's license, passport)?
13. In the past 12 months, have you felt comfortable when using women's restrooms in public places?

14. In the past 12 months, have strangers treated you as a man?
15. In the past 12 months, at home, have people you know, such as friends or relatives, treated you as a man?
16. In the past 12 months, have you had the wish or desire to be a man?
17. In the past 12 months, at home, have you dressed and acted as a man?
18. In the past 12 months, at parties or at other social gatherings, have you presented yourself as a man?
19. In the past 12 months, at work or at school, have you presented yourself as a man?
20. In the past 12 months, have you disliked your body because it is female (e.g., having breasts or having a vagina)?
21. In the past 12 months, have you wished to have hormone treatment to change your body into a man's?
22. In the past 12 months, have you wished to have an operation to change your body into a man's (e.g., to have your breasts removed or to have a penis made)?
23. In the past 12 months, have you made an effort to change your legal sex (e.g., on a driver's licence or credit card)?
24. In the past 12 months, have you thought of yourself as a "hermaphrodite" or an "intersex" rather than as a man or woman?
25. In the past 12 months, have you thought of yourself as a "transgendered person"?
26. In the past 12 months, have you thought of yourself as a man?
27. In the past 12 months, have you thought of yourself as a woman?

Male Version

01. In the past 12 months, have you felt satisfied being a man?
02. In the past 12 months, have you felt uncertain about your gender, that is, feeling somewhere in between a man and a woman?
03. In the past 12 months, have you felt pressured by others to be a man, although you don't really feel like one?
04. In the past 12 months, have you felt, unlike most men, that you have to work at being a man?
05. In the past 12 months, have you felt that you were not a real man?
06. In the past 12 months, have you felt, given who you really are (e.g., what you like to do, how you act with other people), that it would be better for you to live as a woman rather than as a man?
07. In the past 12 months, have you had dreams?
    If NO, skip to Question 8.
    If YES, Have *you* been in your dreams?
    If NO, skip to Question 8.
    If YES, In the past 12 months, have you had dreams in which you were a woman?
08. In the past 12 months, have you felt unhappy about being a man?
09. In the past 12 months, have you felt uncertain about yourself, at times feeling more like a woman and at times feeling more like a man?
10. In the past 12 months, have you felt more like a woman than like a man?
11. In the past 12 months, have you felt that you did not have anything in common with either women or men?
12. In the past 12 months, have you been bothered by seeing yourself identified as male or having to check the box "M" for male on official forms (e.g., employment applications, driver's license, passport)?
13. In the past 12 months, have you felt comfortable when using men's restrooms in public places?
14. In the past 12 months, have strangers treated you as a woman?
15. In the past 12 months, at home, have people you know, such as friends or relatives, treated you as a woman?
16. In the past 12 months, have you had the wish or desire to be a woman?
17. In the past 12 months, at home, have you dressed and acted as a woman?
18. In the past 12 months, at parties or at other social gatherings, have you presented yourself as a woman?
19. In the past 12 months, at work or at school, have you presented yourself as a woman?
20. In the past 12 months, have you disliked your body because it is male (e.g., having a penis or having hair on your chest, arms, and legs)?
21. In the past 12 months, have you wished to have hormone treatment to change your body into a woman's?
22. In the past 12 months, have you wished to have an operation to change your body into a woman's (e.g., to have your penis removed or to have a vagina made)?
23. In the past 12 months, have you made an effort to change your legal sex (e.g., on a driver's licence or credit card)?
24. In the past 12 months, have you thought of yourself as a "hermaphrodite" or an "intersex" rather than as a man or woman?
25. In the past 12 months, have you thought of yourself as a "transgendered person"?
26. In the past 12 months, have you thought of yourself as a woman?

27. In the past 12 months, have you thought of yourself as a man?

Note: Items 1, 13, and 27 were reversed scored. For adolescents <18 years of age, the words woman and man were changed to girl and boy, respectively. Items 1–2, 5–10, 16, and 24–27 were considered to be subjective indicators of gender identity/gender dysphoria; Items 3–4, 11, 13–15, and 17–19 were considered social indicators; Items 20–22 were considered somatic indicators; and Items 12 and 23 were considered sociolegal indicators.