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Sex Bias in the Diagnosis of Histrionic and Antisocial Personality Disorders

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The differential prevalence of the histrionic and antisocial personality disorders among men and women has been attributed both to sex biases and to actual variation in disorder base rates. The present study assessed the bias and base rate explanations and examined whether sex biases are minimized by the relatively explicit diagnostic criteria in the *DSM-III*. Psychologists (N = 354) either diagnosed 9 *DSM-III* disorders from case histories that varied in the ambiguity of the antisocial and histrionic personality disorder diagnoses or rated the degree to which specific features extracted from the case histories met 10 histrionic and antisocial diagnostic criteria. The sex of the patient was either male, female, or unspecified. Sex biases were evident for the diagnoses but not for the diagnostic criteria. The results are discussed with respect to base rate effects, sex biases, and the construction of diagnostic criteria.

Considerable research has indicated differences in psychiatric treatment rates and disorder prevalence between the sexes (Dohrenwend & Dohrenwend, 1976; Gove, 1980; Kass, Spitzer, & Williams, 1983; Levine, Kamin, & Levine, 1974). The antisocial and histrionic personality disorders are among the disorders that have shown different rates of diagnosis for men and women (Kass et al., 1983; Reich, 1987). It is controversial, however, whether these findings represent actual differences between men and women (Chodoff, 1982; Lillenfeld, VanValkenburg, Larntz, & Akiskal, 1986; Spalt, 1980; Williams & Spitzer, 1983) or the influence of stereotyping and sex biases in clinical diagnosis (Hare-Mustin, 1983; Kaplan, 1983; Walker, 1987).

Warner (1978) investigated sex bias in *Diagnostic and Statistical Manual of Mental Disorders* (second edition) diagnoses (*DSM-II;* American Psychiatric Association [APA], 1968) of antisocial and hysterical personality disorders. He presented to 175 mental health professionals a hypothetical case history with mixed features of the two personality disorders. Subjects chose one of eight possible diagnoses, including the antisocial and hysterical personality disorders. The patient, when described as being female, was diagnosed as hysterical 76% of the time and as antisocial 22% of the time. When described as male, the patient was diagnosed as hysterical 49% and as antisocial 41% of the time. Warner (1978) concluded that there is a "tendency for therapists to perceive men as antisocial personalities and women as hysterical personalities even when the patients have identical features" (p. 842).

Warner's (1978) findings, however, are inherently ambiguous. Williams and Spitzer (1983) responded in part to Kaplan's (1983) critique of the new edition of the diagnostic manual (*DSM-III;* APA, 1980) by indicating that differential sex prevalence alone does not necessarily suggest a sex bias. Predisposing sociocultural and biogenetic variables may be sex-specific to some extent, and a disorder that involves an exaggeration of stereotypic feminine or masculine traits will probably occur more often in women or men, respectively (Simons, 1987; Widiger, 1987). If the actual base rates of hysterical (histrionic) personality disorder (HPD) and antisocial personality disorder (APD) are different in men and women, then the findings in Warner (1978) and other sex bias studies can be interpreted as reflecting the influence of base rate judgments rather than sex bias. If a disorder occurs more frequently in women than in men, then, all else being equal, the probability of that disorder will be higher given an ambiguous case involving a woman than a case involving a man. Diagnosing HPD more frequently in women than in men in such a case is then not necessarily an indication of sex bias.

Base rate effects should be less of a factor when the diagnosis is less ambiguous. Fuller and Blashfield (in press) reported no effect of sex on the diagnosis of masochistic personality disorder when the cases involved prototypic examples of the disorder. Fuller and Blashfield also compared two cases that were not prototypic, but the rate of masochistic personality disorder diagnosis was apparently so low for both sexes that sex comparisons could not be made. Hamilton, Rothbart, and Dawes (1986) obtained antisocial and histrionic applicability ratings on cases that varied in the relative number of antisocial and histrionic criteria (as well as the sex of the patient). Five levels of ambiguity were provided (*all histrionic* to *all antisocial*). Histrionic ratings were higher for women than for men at all levels of ambiguity. Hamilton et al. suggested that this sex effect did

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not interact with level of ambiguity, but apparently this was not assessed statistically. In any case, a substantial methodological problem was that each subject provided ratings for both sexes and for all levels of ambiguity.

The clinicians in Warner (1978) were using the *DSM–II* (APA, 1968) criteria for hysterical and antisocial personality disorders, which allowed for a considerable degree of judgment and inference. Although the *DSM–III* (APA, 1980) diagnostic criteria are generally more explicit and specific, there remains considerable difference in the degree of specificity of the *DSM–III* personality disorder criteria, including those for the antisocial and histrionic personality disorders. Hamilton et al. (1986) suggested that their findings of no sex differences in antisocial as contrasted with histrionic ratings were due to the greater specificity of the *DSM–III* antisocial criteria in comparison with the histrionic criteria. However, their results could also reflect greater sex biases in the clinicians with respect to women and the diagnosis of histrionic personality disorder. Whether the individual antisocial or histrionic criteria are themselves more susceptible to sex bias was not assessed.

The present study was undertaken to assess whether sex differences in the diagnosis of APD and HPD could be explained by base rate differences. If sex differences in diagnosis are due to base rates, then the effect of sex should be more evident when the diagnosis is ambiguous than when the patient meets the criteria for a disorder. The current study also assessed whether the more explicit and specific criteria of the *DSM–III* prevent or inhibit sex bias.

Method

Subjects

Subjects were psychologists randomly selected from the National Register of Health Services Providers in Psychology (Council for the National Register, 1983), with the geographic focus being the southeastern United States. A total mailing of 1,127 questionnaires obtained 381 responses (34%). The return rate was 43% when it was adjusted for unopened letters returned as unforwardable. Twenty-seven of the 381 questionnaires were not used because of incomplete responses, leaving a final sample of 354 (31% of the total mailing) questionnaires on which the results of the study were based. Mean age was 46.6 years (SD = 10.8); 76% were men. The characteristics of the sample were comparable to those of similar surveys (e.g., Morrow-Bradley & Elliott, 1986), with 57% in private practice, 21% in inpatient settings, 12% in outpatient clinics, 6% in academic settings, and 4% in other categories. Twenty-nine percent listed themselves as psychodynamic or insight-oriented, 19% as behavioral or cognitive behavioral, 13% as systems- or family-oriented, and 38% as eclectic. Those who responded reported an average of 15.6 years of clinical experience (SD = 8.4) since obtaining their degree.

Procedure

Subjects were provided with either one of nine possible case histories or with one of three possible lists of individual behaviors (descriptions follow). All assignments to case histories and lists were made on a random basis. No demographic or clinical orientation differences occurred between the various conditions.

Case history ratings. Two-hundred and sixty-six psychologists responded to one of three brief case histories (balanced, histrionic, or antisocial), with each case involving either a male, a female, or a neuter (sex unspecified) patient. The balanced case history described a patient with features of both APD and HPD who did not meet the *DSM–III* criteria for either disorder (APA, 1980). The antisocial case was the same but included additional features so that the patient met the *DSM–III* criteria for APD. The histrionic case was likewise the same as the balanced but included additional features so that the patient met the *DSM–III* criteria for HPD. The balanced, antisocial, and histrionic neuter case histories had been evaluated and adjusted with pilot data collected from an earlier, independent sample of 90 psychologists in Kentucky to obtain case histories that were indeed balanced, antisocial, or histrionic. (The case histories can be obtained on request from the first author.)

Subjects rated on a 7-point scale the extent to which the patient appeared to have each of four Axis I disorders (dysthymic, adjustment, alcohol abuse, and cyclothymic disorder, in that order) and five Axis II disorders (narcissistic, histrionic, passive–aggressive, antisocial, and borderline personality disorder, in that order). A variety of diagnoses were included in order to minimize awareness of the purpose of the study. A forced-choice format was not used, and subjects could provide multiple diagnoses for the same case history, consistent with clinical practice. Subjects were instructed that ratings of 5 through 7 indicated that they believed the disorder to be present. This instruction allowed the data to be analyzed both as a continuous variable and as a dichotomous variable indicating the presence versus the absence of the disorder. This report is confined to the categorical analyses because they are most pertinent to the issue of actual diagnosis. (Dimensional analyses are consistent with categorical analyses and are available from the first author on request.)

Individual criterion ratings. An independent group of 88 psychologists rated the extent to which each of a list of 10 individual behaviors extracted from the case histories was an example of a respective *DSM–III* histrionic or antisocial criterion (e.g., prone to manipulative suicidal threats, gestures, or attempts; overreaction to minor events; recklessness; irrational, angry, outbursts or tantrums; inability to sustain consistent work behavior; perceived by others as shallow and lacking in genuineness, even if superficially warm and charming; inability to maintain attachment to a sexual partner; egocentric, self-indulgent, and inconsiderate of others; disregard for the truth; and self-dramatization). Sentences from the case histories were presented (e.g., "Earlier in the evening the patient had reportedly been drinking heavily, and had run the car off the road") in a randomized order and were rated independently for APD and HPD criteria. The sex of the patient was again varied as noted previously, with approximately a third of the subjects rating a male, a female, or a neuter (sex unspecified) patient.

Results

Case Histories

An analysis of variance (ANOVA) indicated no significant difference between balanced, antisocial, or histrionic case histories with respect to the number of diagnoses given. Borderline personality disorder was the personality disorder diagnosis most often made across all three case histories when the gender was neuter, which is not surprising given its popularity and relatively nonspecific, overlapping criteria (Gunderson, 1984; Widiger & Frances, 1985). The APD diagnosis was the second most prevalent for the neuter antisocial case history, and the HPD diagnosis was equal in prevalence to the borderline diagnosis for the neuter histrionic case history. Narcissistic personality disorder followed borderline personality disorder as the most popular diagnosis for the neuter balanced case history. In sum, the results indicate that the antisocial and histrionic case histories were less ambiguous than the balanced case history. However, the un-

Table 1
Percent of Subjects Diagnosing Each Disorder as Present for Each Version of Each Case History

Diagnosis	Case history: Balanced Male (n = 26)	Balanced Female (n = 25)	Balanced Neuter (n = 27)	Balanced χ^2	Antisocial Male (n = 31)	Antisocial Female (n = 33)	Antisocial Neuter (n = 31)	Antisocial χ^2	Histrionic Male (n = 27)	Histrionic Female (n = 38)	Histrionic Neuter (n = 28)	Histrionic χ^2
Axis I disorder												
Dysthymic	19	12	22	1.0	16	21	10	1.6	15	16	11	.4
Adjustment	35	28	22	1.0	32	12	32	4.6	37	29	39	.9
Alcohol abuse	54	56	63	.5	58	58	58	.0	56	42	50	1.2
Cyclothymic	0	4	7	2.0	10	6	3	1.1	4	8	0	2.5
Axis II disorder												
Antisocial	35	36	37	.0	42	15	48	8.8*	33	11	18	5.3
Histrionic	27	32	52	4.0	6	46	26	12.6**	44	76	64	6.9*
Narcissistic	42	40	59	2.3	45	48	36	1.2	48	55	43	1.0
Borderline	38	56	70	5.5	48	70	61	5.5	52	47	64	1.9
Passive-aggressive	12	12	22	1.5	26	18	29	1.1	7	5	18	3.1

Note. For chi-square analyses, $df = 2$.
* $p < .05$. ** $p < .01$.

balanced cases were not comparable to the prototype (obvious) masochistic personality disorder cases in Fuller and Blashfield (in press). Antisocial personality disorder was diagnosed in only 48% of the neuter antisocial case histories.

Chi-square tests of independence indicated that ratings of the presence of APD and HPD disorders for the balanced case history were not significantly influenced by the sex of the patient (see Table 1). However, for the histrionic case history, the subjects significantly more often failed to diagnose HPD in male patients (44%) than in female patients (76%). For the antisocial case history, subjects significantly more often failed to diagnose APD in female patients (15%) than in male patients (42%). In fact, antisocial female patients were significantly more likely to be diagnosed with HPD than with APD (46% vs. 15%, respectively). None of the four Axis I diagnoses and none of the other three Axis II diagnoses were significantly affected by the sex of the patient.

Individual Criteria

Analyses of the individual behaviors presented in the case histories indicated that they were seen as being representative of their respective HPD and APD diagnostic criteria. Eighty percent of the sentences from the case histories were rated as indicating the presence of the respective criteria from APD or HPD by a majority of the subjects.

Chi-square analyses indicated that the ratings for male and female patients were not significantly different on any of the 10 items. The only sex differences that did occur concerned the male versus the neuter conditions on 2 of the 10 items, and for 1 of these 2 items it occurred in the opposite direction than would be predicted by a sex bias hypothesis. For the sentence concerning the histrionic criterion of shallow and lacking genuineness ("Additional history revealed the lack of any close, long-term sexual relationships, rather a series of superficial and brief affairs"), men obtained a significantly higher prevalence than neuters (41% vs. 9%, respectively). (The sentence was also rated for the presence of the antisocial criterion of inability to maintain enduring attachment to a sexual partner, but no gender differences were obtained.) The other male versus neuter difference occurred in a direction consistent with sex role expectations and occurred for the sentence concerning the antisocial criterion of disregard for the truth ("The patient's lack of real affection for others had been demonstrated by a history of selfish and self-centered behavior, including instances of manipulation, exploitation, and deception"; men = 62%, neuter = 22%). It should be noted that these two sentences were also the only two that were not rated as indicating the presence of the respective HPD and APD criteria by a majority of the subjects (i.e., 25% and 41%, respectively). In sum, the results indicated that the clinicians did not differentiate between men and women with respect to the presence of each individual diagnostic criterion.

Subject Sex Differences

None of the previous results, for either the case histories or the individual criteria, varied substantially when the data were analyzed separately for male and female clinicians. For example, when the case history data were analyzed separately for male and female subjects, the results were the same in all instances, with only one exception. The female subjects' antisocial ratings for the antisocial case history were not significantly affected by the sex of the patient, $\chi^2(2, N = 21) = 2.1, p > .10$, but the male subjects' ratings were, $\chi^2(2, N = 73) = 6.4, p < .05$. For the individual criteria data, male and female subjects provided different results on only 2 of the 10 items, and these occurred on the 2 items (described previously) for which male patient versus neuter patient differences were obtained. Although male subjects gave higher prevalence ratings to male than neuter patients on both items, $\chi^2(2, N = 62) = 9.08, p < .01$, and $\chi^2(2, N = 62) = 11.95, p < .01$, there were no significant gender differences for female subjects, $\chi^2(2, N = 26) = .12, p > .50$, and $\chi^2(2, N = 26) = .76, p > .50$.

It should be noted, however, that only 24% of the 354 subjects were women, leaving a low sample size for some of these analyses. The few subject sex differences that were obtained may then not be reliable. In sum, the results indicated no substantial or likely reliable differences in the results for male and female subjects, consistent with prior research (Hamilton et al., 1986; Warner, 1978).

Discussion

The results suggest that sex differences in diagnoses cannot be readily explained by a rational consideration of base rate differences. Base rates are most appropriately considered when the case history information is ambiguous, but in this study the diagnoses of the least ambiguous case histories that met *DSM-III* criteria were those most affected by the sex of the patient. There was a clear tendency of subjects to diagnose women with HPD and not with APD, even when cases were more antisocial than histrionic. There was also a tendency not to diagnose men with HPD, but the sex biases were more evident for the female patients, consistent with the prior studies by Hamilton et al. (1986) and Warner (1978). No sex biases were evident for the seven other diagnoses.

The cases used in this study were not entirely unambiguous. It is possible that sex biases would not be evident if prototypic or obvious cases of antisocial or histrionic personality disorder were used (Fuller & Blashfield, in press). However, cases that are unambiguous may be less relevant to the question of sex biases in clinical diagnosis. The typical case of APD or HPD is unlikely to be a prototypic, unambiguous case. The APD and HPD cases in the current study were less ambiguous than the balanced cases, and they did meet the respective *DSM-III* criteria. The results therefore suggest that sex biases, with respect to both male and female patients, do affect the *DSM-III* diagnosis of APD and HPD.

This bias, however, was not evident in the assessment of the individual APD and HPD criteria. Sex biases have been attributed to the particular content of individual criteria (Hamilton et al., 1986; Kaplan, 1983), and efforts were made in the *DSM-III* (and in its revised edition) to eliminate sex-typed behaviors from the criteria (Williams & Spitzer, 1983). The results of the current study suggest that the individual items may not themselves be sex-biased but that the absence of such bias at the item or criterion level does not prevent or even inhibit bias in the final diagnosis. The bias may be generated by stereotypic expectations with respect to the diagnostic label (i.e., *histrionic* or *antisocial*). Clinicians may not be affected by the sex of the patient when determining the presence of irrational, angry outbursts or tantrums; overreaction to minor events; or proneness to manipulative suicidal threats or gestures, but they are affected by the sex of the patient when making the diagnosis of histrionic or antisocial personality disorder. The stereotypic expectations are elicited by the disorders rather than by the individual criteria. This is of substantial importance in the development of diagnostic criteria because it suggests that increasing the specificity of diagnostic criteria and removing sex-typed features from criteria sets may neither eliminate nor even substantially inhibit sex biases.

The results also suggest that the decision to change the proposed label for the *masochistic* personality disorder to the *self-defeating* personality disorder to distinguish the diagnosis from the early psychoanalytic literature may have been prudent. Similar reasoning led to the labeling change of the *DSM-II hysterical* personality disorder to the *DSM-III histrionic* personality disorder. A diagnosis of hysteria or masochism by any other name may still be sexist (Widiger & Frances, 1985), but the results of the current study indicate that biases and assumptions may be elicited by the labels given to disorders. It should be noted, however, that the current study was confined to the antisocial and histrionic personality disorder diagnoses and may not generalize to the self-defeating personality disorder.

One alternative explanation for the failure to obtain a greater sex effect for the individual criteria is that the subjects may have been aware of the focus of the study and may have suppressed their sex biases. However, this clearly was not a problem with the case histories, and the purpose of the study was also disguised for the individual criterion ratings. The APD and HPD items and ratings were scrambled to minimize their identification and, unlike the case history ratings, the terms *antisocial* and *histrionic* did not appear in the questionnaire (or cover letter). Subjects were simply asked to rate the extent to which a sentence describing a behavior of a patient represented various criteria, with no indication of the source of the criteria.

The results further suggest that efforts to eliminate sex bias from diagnoses should concentrate on the expectations and assumptions associated with the disorders themselves. The clinical diagnosis of personality disorders is typically inconsistent with diagnoses obtained by structured interviews (Stangl, Pfohl, Zimmerman, Bowers, & Corenthal, 1985; Widiger & Frances, 1987). This was clearly demonstrated by Morey and Ochoa (1987), who asked clinicians (a) to rate patients with respect to each of the personality disorder criteria (presented in random order) and (b) to provide their diagnostic impression. There was a substantial lack of concordance between the diagnostic impressions and the diagnoses that should have been given had the diagnoses been based on the *DSM-III* criteria that were assigned in the checklist. Antisocial personality disorder, for example, was overdiagnosed in uneducated, male patients. It thus appears that sex biases may best be diminished by an increased emphasis in training programs and clinical settings on the systematic use and adherence to the criteria and diagnostic rules presented in the *DSM-III* (and its revised edition) and not in the development of explicit, specific, and sex-neutral diagnostic criteria.

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