VITA

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SEX BIAS IN THE DIAGNOSIS OF NARCISSISTIC, HISTRIONIC, SADISTIC, AND BORDERLINE PERSONALITY DISORDERS

A Doctoral Research Project

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In Partial Fulfillment

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Doctor of Psychology

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by

Shirley L. Campbell

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Approval Sheet

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For the School of Graduate Studies

Abstract

Recently, considerable attention has been given to sex bias in the diagnosis of personality disorders. Research has shown that clinicians will assign different diagnoses to case histories of males and females that contain identical symptoms. The present study attempted to examine sex bias in the diagnosis of Narcissistic, Histrionic, Borderline, and Sadistic personality disorders. Psychologists were presented with a male or female version of each of three audiotaped simulated interviews: a Narcissistic/Histrionic case, a Depression/Anxiety symptom case used as a "filler case," and a Borderline/Sadistic case. It was predicted that psychologists would assign more diagnoses of Borderline and Histrionic to the female versions of the cases, and Sadistic and Narcissistic to the male versions.

The results showed that, while sex of the patient did not have a significant effect on diagnoses assigned, there was a trend for more Narcissistic and Sadistic diagnoses to be assigned to the male interviews and Borderline to the female interview by male psychologists only. Limitations of this study and directions for future research are discussed.

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TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

Table Page

Chapter 1

INTRODUCTION

Women are diagnosed and treated for mental disorders far more often than men, and the literature abounds with theories to account for this difference (Carmen, Russo, & Miller, 1981; Gilligan, 1979; Gove & Tudor, 1973; Phillips & Segal, 1969). The proposed theories range from biological explanations to sex bias based on sex-role stereotyping and beliefs about what constitutes a healthy adult male and female (Broverman, Broverman, Clarkson, Rosenkrantz, & Vogel, 1970).

Sex bias in the diagnosis of mental disorders has been a controversial topic which has received considerable attention over the last two decades, particularly in the diagnosis of depression and personality disorders. Lately, there has been considerable attention given to the possibility of sex bias in the criteria for personality disorders in the Diagnostic and Statistical Manual for Mental Disorders, third edition (DSM-III; American Psychiatric Association, 1980), and the Diagnostic and Statistical Manual for Mental Disorders, third edition revised (DSM-III-R; American Psychiatric Association, 1987)

(Kaplan, 1983; Williams & Spitzer, 1983; Widiger & Nietzel, 1984; Hamilton, Rothbart, & Dawes, 1986; Sprock, Blashfield, & Smith, 1990).

Kaplan (1983) argued that there are masculine biased assumptions built into DSM-III criteria which influence clinicians' diagnoses. These male biases influence the determination of which behaviors are considered healthy and which are considered pathological. As a result, healthy women may be labeled as disordered. The definitions of mental disorder and social deviance result in vague rules for differentiating between the two, and leave open the possibility for clinicians' values, which may reflect society's sexism, to influence their decision making. According to Kaplan, women are more frequently diagnosed with Histrionic, Dependent, and Borderline personality disorders (PD), and men are more frequently diagnosed with Paranoid, Antisocial, and Compulsive PD (from this point on "PD" will be used as an abbreviation for personality disorder when referring to the names of specific personality disorders).

Williams and Spitzer (1983), who were both involved in the development of DSM-III, replied to Kaplan's article and stated that conscientious attempts were made to ensure that DSM-III did not manifest sex bias, and that Kaplan provided no data to back up her hypothesis. While they noted that certain personality disorders are diagnosed more often for women (i.e., Dependent and Histrionic), and others are

diagnosed more often for men (i.e., Schizoid, Antisocial, Passive-Aggressive), they also pointed out that differential frequency of diagnosis is not sufficient evidence for gender bias.

A number of studies have attempted to look at gender bias in the way that clinicians assign personality disorder diagnoses. These studies utilized the methodology of manipulating the gender in case vignettes while holding the symptoms constant. Generally, these studies have found that clinicians will assign different personality disorder diagnoses to male and female versions of a case even though the cases are otherwise identical.

One of the earliest studies on gender bias in the diagnosis of personality disorders was conducted by Warner (1978). The results of this study suggested that the diagnosis assigned by clinicians is affected by the gender of the patient. Warner presented two versions of an identical case showing a variety of symptoms of psychopathology. In one version the patient was portrayed as female, and in the other, the patient was portrayed as male. The female patient was most frequently diagnosed as Hysterical PD, while for the male patient, Antisocial and Hysterical PD diagnoses were assigned equally.

Henry and Cohen (1983) conducted a study looking at Borderline PD and found that a labeling process may be in effect when clinicians diagnose this disorder. As a part of their study, they asked male and female college students to

self-report symptomatology on a questionnaire that included the DSM-III criteria for Borderline PD. Based on their findings that normal men report more Borderline characteristics than women, they suggested that clinicians may view these characteristics as more consistent with male sex roles and, as a consequence, find them more tolerable in men. In women these characteristics may not fit the typical female sex role and may be more likely to prompt a diagnosis of Borderline PD.

Further support for sex bias in diagnosis was presented by Hamilton, Rothbart, and Dawes (1986). They suggested that vague diagnostic descriptions promote sex bias, and that sex bias is more likely to be evident when diagnostic categories describe personality traits as opposed to behaviors. They had 65 licensed clinical psychologists independently rate the applicability of personality disorder diagnoses to 18 written case studies based on 10 DSM-III categories, including Antisocial and Histrionic. Clinicians received either the male or female version of each case. Applicability of diagnosis was rated on a Likert-type scale from 1 (diagnostic category is not applicable) to 11 (diagnostic category is applicable). The results showed that the Histrionic case was rated as significantly more Histrionic when it was presented as female than as a male. However, they did not find the same sex bias for Antisocial; clinicians did not rate the male version of the case as showing more Antisocial pathology than the female version.

They proposed that the reason for the difference between the two diagnoses is that the diagnostic criteria for Antisocial are behaviorally anchored while the Histrionic criteria are trait dominated.

Ford and Widiger (1989) conducted a study looking at sex bias in the diagnoses of Antisocial and Histrionic PD in which they also used rating scales. As part of their study they presented 266 psychologists with three brief case histories (Histrionic, Antisocial, or balanced) which were presented as either a male, a female, or sex unspecified patient. The balanced symptom case was used because it was believed that bias would be most evident in an ambiguous case such as the one used in the Warner (1978) study. Subjects responded by rating the extent to which the patient had each of four specified Axis I disorders and five specified Axis II disorders (Narcissistic, Histrionic, Passive-Aggressive, Antisocial, and Borderline PD). The results suggested that sex biases were evident for diagnoses of Antisocial and Histrionic PD; however, the cases that were most affected by the sex of the patient were the least ambiguous ones. They also found no differences in diagnosis between male and female subjects.

A different approach in looking at gender bias in personality disorder diagnoses was presented by Sprock, Blashfield, and Smith (1990). They examined gender weighting for the DSM-III-R diagnostic criteria for personality disorders using a card sorting methodology.

They defined gender weighting as the degree to which the individual criteria for personality disorders varied along a male-female dimension. Individual personality disorder criteria were typed on index cards and subjects were asked to sort them along a male-female dimension. Differences in gender weighting may reflect sex role stereotyping, and if this stereotyping affects criteria for personality disorders, then non-clinicians would be expected to show gender weighting in their ratings of the criteria.

The results revealed differences in gender weighting of criteria, with Dependent and Histrionic criteria viewed as feminine and Sadistic and Antisocial seen as strongly masculine. Although the authors had expected to find an Antisocial-Histrionic dimension, consistent with past research showing these disorders to be male and female prototypes, subjects in the study saw the criteria as occurring along a Sadistic-Dependent dimension. Another somewhat surprising finding was that Borderline PD did not show a gender weighting. The explanation for this finding was that all of the criteria for this disorder were seen as feminine except one, which was seen as strongly masculine, pulling the mean toward the middle of the dimension.

Much of the past research on sex bias and personality disorders has focused on differential diagnosis of disorders such as Antisocial and Histrionic, or has examined sex bias in individual disorders, such as Borderline or Dependent. Although the methodology has varied, the personality

disorders under investigation have varied little. Most of the past attention has focused on Antisocial, Dependent, Histrionic, and Borderline PD. The present study attempted to examine sex bias in differential diagnosis involving two personality disorders which have received less attention, Narcissistic, and the newly proposed category listed in the appendix of DSM-III-R, Sadistic. Narcissistic PD is characterized by an exaggerated sense of self-importance. Narcissistic individuals crave constant attention and admiration, are self-centered, intolerant of criticism, feel that they are entitled to special favors, and are interpersonally selfish. Sadistic PD is characterized by a pervasive pattern of cruel, demeaning, and aggressive behavior toward others. Sadistic individuals feel a need for dominance and power. They lack respect and empathy for others, and take pleasure in others' pain or suffering. Sadistic PD was included in the appendix of DSM-III-R, rather than listed with Axis II personality disorders, because of the controversy surrounding it. Critics opposed to including Sadistic PD stated that there has been no systematic research on the disorder, and that it was included only to counterbalance the proposed Masochistic (Self-Defeating) PD (Holden, 1986). Both Narcissistic and Sadistic PD have been shown to be diagnosed more often for males than females (Philipson, 1985), and Sadistic was seen as the most masculine personality disorder in the Sprock et al. (1990) study.

In the present study, Narcissistic and Sadistic PD were contrasted with Borderline and Histrionic PD. Both are more likely to be diagnosed for females (Ford & Widiger, 1989; Kass, Spitzer, & Williams, 1983; Williams & Spitzer, 1983), and Histrionic had a feminine gender weighting in the Sprock et al. (1990) study. Borderline PD is characterized by affective instability, including depression and anger which is often inappropriate and intense, impulsivity, physically destructive acts, unstable and intense relationships, identity confusion, intolerance of being alone, and chronic feelings of emptiness. The characteristics of Histrionic PD include dramatic and exaggerated emotions, irrational angry outbursts, chronic need for attention, and overreaction to minor events. These individuals show disturbances in interpersonal relationships and are seen by others as superficial, demanding, inconsiderate, dependent, and manipulative.

The first case contained a mixture of symptoms from Histrionic and Narcissistic PD while the second contained a mixture of symptoms from Sadistic and Borderline PD. Histrionic was paired with Narcissistic because some research has suggested that there is diagnostic overlap and confusion between these two disorders (Blashfield, McElroy, Davis, & Sprock, 1991). Borderline was selected as the feminine alternative to Sadistic because some symptoms (e.g., intense anger, physically destructive acts) overlap with symptoms seen in Sadistic personality disorder. Cases

with mixed symptomatology were used because research has shown increased bias in situations of uncertainty and ambiguity (Warner, 1978; Hamilton et al., 1986).

In this study, licensed psychologists were presented with three tape recorded simulated intake interviews. One interview (Case 1) presented a client with an equal number of symptoms each from Narcissistic and Histrionic PD. The second interview (Case 2) presented symptoms of depression and anxiety, served only as a filler case, and was not analyzed for the purpose of this study. The third interview (Case 3) presented an equal number of symptoms each from Sadistic and Borderline PD. The sex of the clients was manipulated by using male and female actors to play the part of the client. The scripts were identical and the actors practiced to achieve as similar voices as possible. The psychologists received either the male or female version of each case and the order of presentation was partially counterbalanced.

For Case 1, it was hypothesized that clinicians who received the female version of the case would be more likely to assign a diagnosis of Histrionic PD than those who received the male version of the case. Clinicians who received the male version of the interview were expected to assign a diagnosis of Narcissistic PD more often than those who received the female version of the case. For Case 3, it was hypothesized that clinicians would be more likely to assign a diagnosis of Borderline PD when the client in the

interview was a female than a male, while they would be more likely to assign a diagnosis of Sadistic PD when the client in the interview was a male than a female.

Chapter 2

METHOD

Subjects

Approximately 221 licensed psychologists, who were current members of the Indiana Psychological Association, were contacted first by mail and then telephone and asked to participate in the study. They were told that the study was about clinical judgment in assigning diagnoses and involved listening to three audiotaped intake interviews and completing a diagnostic questionnaire for each interview. Of the 221 clinicians contacted, a total of 70 (32%) agreed to participate in the study. Subjects were randomly assigned to one of the four experimental groups, and the materials were mailed to them.

Thirty-three psychologists (47%), of the 70 who agreed to participate, actually completed and returned the questionnaires. An additional six psychologists were recruited from the researchers' internship sites making a total of 39 subjects. Although there was no significant difference in mean ages between the original group (mean = 45.91, SD = 8.29) and the additional 6 subjects (mean = 39.00, SD = 5.62), $t(37) = 1.95$, $p > .05$, the original group

of subjects was significantly more experienced (mean = 15.97, SD = 8.37) than the six additional subjects (mean = 7.17, SD = 5.64), $t(37) = 2.46$, $p < .05$. There were no significant differences between the original group and the additional six in terms of personality disorder diagnoses for Case 1 ($\chi = 1.68$) or Case 3 ($\chi = 3.69$); therefore, the results from all 39 subjects were grouped together for the analyses of the cases. It should also be noted that there were no significant differences between subjects recruited the two ways in their Axis I ratings, Axis II pathology ratings, or ratings of the effectiveness of different treatment strategies for either of the two cases. However, the original group rated Case 1 as more chronic (mean = 5.25 SD = .88) than the additional group of subjects (mean = 4.00 SD = 1.79), $t(36) = 2.66$, $p < .05$.

The 39 subjects, 21 males (54%) and 18 females (46%), ranged in age from 31 to 62 years old (mean = 44.85, SD = 8.27), and were relatively experienced with an average of 14.61 (SD = 8.57) years as a mental health service provider (HSPP) in psychology. Licensed psychologists qualify for the designation of HSPP in Indiana after two years post-doctoral clinical experience. The males were significantly older (mean = 48.29, SD = 7.19) than the females (mean = 40.83, SD = 6.90), $t(37) = 3.11$, $p < .05$, and were more experienced (mean = 19.00, SD = 7.97), $t(37) = 4.11$, $p < .05$ than the females (mean = 9.50, SD = 6.18). Table 1 presents the breakdown of subjects in terms of years of experience.

Table 1. Subjects' Number of Years Experience as a Mental Health Service Provider

Years	Frequency	Percent
1-9	13	33
10-19	14	36
20-29	10	26
30+	2	5

Psychologists must be endorsed as a HSPP in order to independently diagnose and treat mental disorders.

The subjects were employed in a wide variety of settings as illustrated in Table 2. The largest number were employed in private practice, followed by community mental health centers, and general hospitals. The therapeutic orientation of the subjects was also varied. The majority (54%) described themselves as eclectic, 12 (29%) as cognitive-behavioral, three (8%) as psychodynamic, one (3%) each as social learning and humanistic, and one did not report therapeutic orientation.

Most of the subjects in the sample reported that they generally treat three or more types of disorders in their clinical practice, indicating that the clinical experience of the subjects is broad. Table 3 provides a list of the DSM-III-R disorders they most commonly treat. The majority of the subjects reported that they treat mood and anxiety disorders, the most frequent disorders seen by mental health professionals. Approximately one-third of the subjects

reported treating patients with personality disorders, which is of particular interest to the present study.

Table 2. Frequency and Percentage of Psychologists Employed in Different Settings

Employment Setting	Frequency	Percent
Private Practice	14	36
CMHC	7	18
General Hospital	6	15
Outpatient Facility	4	10
VA Hospital	3	8
State Hospital	2	5
Private Hospital	1	3
University	1	3
Government Agency	1	3

Additionally, one subject reported treating all disorders, one subject reported treating nonpsychotic disorders, and one subject reported not currently being in clinical practice. However, this latter subject was kept in the study because of his 15 years of clinical experience.

Materials

Taped intake interviews: The simulated intake interviews were performed by seven volunteer students from the Theater Department at Indiana State University. One female acted as the "therapist" for all the cases, and three males and three females acted as the "patients" in the three cases. The interviews followed prepared scripts and each lasted approximately eight minutes. The first taped

Table 3. Frequency and Percentage of Clinicians Who Reported Commonly Treating Specific DSM-III-R Disorders

Disorders Treated	Frequency	Percent
Mood	28	72
Anxiety	23	59
Adjustment & V Codes	14	36
Personality	13	33
Childhood	11	28
Psychotic	8	21
Organic	3	8
Substance Abuse	2	5
Impulse Control	1	2
Dissociative	1	2
Sexual Disorders	1	2

interview (Case 1) consisted of an equal number of symptoms (four each) from Narcissistic and Histrionic PD based on criteria in DSM-III-R (see Table 4). The criteria selectedwere those felt to overlap between the two disorders in order to present ambiguous cases which are more likely to elicit bias. The second taped interview (Case 2) presented an equal number of symptoms of depression and anxiety and was used only as a filler for the two cases of interest. The third taped interview (Case 3) consisted of an equal number of symptoms (four each) from Sadistic and Borderline PD based on criteria in DSM-III-R (see Table 5). Again, the symptoms that overlapped between the two disorders were selected in order to increase the ambiguity of the case. The interview scripts were written by the researcher and designed to follow the flow of a typical intake interview.

Table 4. DSM-III-R Criteria Used in the Narcissistic-Histrionic Symptom Case (Case 1)

Narcissistic Symptoms
1. Is interpersonally exploitative: takes advantage of others to achieve his or her own ends.
2. Has a sense of entitlement: unreasonable expectation of especially favorable treatment.
3. Requires constant attention and admiration.
4. Lack of empathy: inability to recognize and experience how others feel
Histrionic Symptoms
1. Expresses emotion with inappropriate exaggeration.
2. Is overly concerned with physical attractiveness.
3. Is uncomfortable in situations in which he or she is not the center of attention.
4. Is inappropriately sexually seductive in appearance or behavior.

See Appendix A for the scripts used for Cases 1, 2 and 3. Two pilot studies were conducted using graduate students in the Indiana State University Doctoral Program in Clinical Psychology. The first study evaluated whether the scripts contained the intended symptoms and were believable, while the second focused on the realism and sound quality of the audiotapes and whether the male and female versions of the cases were similar. Generally these pilot studies demonstrated that the cases contained the intended symptoms, were realistic and clear, and that the male and female versions were comparable. See Appendix D for pilot study information and results.

Table 5. DSM-III-R Criteria Used in the Borderline-Sadistic Symptom Case (Case 3)

Borderline Symptoms
1. A pattern of unstable and intense interpersonal relationships.
2. Inappropriate, intense anger or lack of control of anger.
3. Affective instability: marked shifts from baseline mood to depression, irritability, or anxiety, usually lasting a few hours and rarely more than a few days.
4. Relationships characterized by alternating between extremes of overidealization and devaluation.
Sadistic Symptoms
1. Is amused by, or takes pleasure in, the psychological or physical suffering of others.
2. Has lied for the purpose of harming or inflicting pain on others.
3. Restricts the autonomy of people with whom he or she has a close relationship.
4. Humiliates or demeans people in the presence of others.

Diagnostic questionnaire: The diagnostic questionnaire was based largely on the one developed by Perlick and Atkins (1984) for their study looking at age bias in the diagnosis of depression and dementia. It contained questions aimed ateliciting the subjects' diagnostic impressions of the client, and was constructed to become increasingly specific about the type of judgments the subjects would make. The subjects were first asked about Axis I pathology in the interview. They were asked to assign a DSM-III-R diagnosis and then rate the severity of the pathology for several

major Axis I disorders and overall Axis I pathology using Likert scales ranging from 1 (not present) to 7 (extremely severe). A similar set of questions followed for Axis II personality disorder pathology. Finally, the subjects were asked to provide treatment and/or management recommendations in an open-ended format, followed by ratings on a scale of 1 (not likely) to 7 (extremely likely) that the patient would improve with specific treatment strategies (i.e., anti-depressant medication, anti-anxiety medication, psychotherapy). See Appendix B for a copy of the diagnostic questionnaire used for all three cases. A pilot study was conducted to identify any problems with the questionnaire and to examine two alternative orderings of the items. The pilot study showed no difficulty with the questionnaire and the version rated easier to use was selected for the study (see Appendix B).

Demographic questionnaire: The demographic questionnaire (see Appendix C) was developed to provide information about the subjects and their clinical experience. It included questions regarding the subjects' gender, age, theoretical orientation, employment setting, the disorders which they most commonly treat, and their number of years of clinical experience.

Procedure

Envelopes containing an informed consent form; printed instructions; the three tape-recorded interviews; the demographic questionnaire; three identical diagnostic

questionnaires labeled Case 1, Case 2, and Case 3; and a prestamped return envelope were mailed to each subject who agreed to participate in the study.

Subjects were randomly assigned to one of four experimental conditions: (1) Case 1 (male), Case 2 (female), Case 3 (female); (2) Case 1 (female), Case 2 (male), Case 3 (male); (3) Case 3 (female), Case 2 (male), Case 1 (male); (4) Case 3 (male), Case 2 (female), Case 1 (female). One-half of the subjects received the male version of Case 1 and female version of Case 3, while the other half received the female version of Case 1 and the male version of Case 3. One-half of the subjects received Case 1 first while the other half received Case 3 first. The depression-anxiety filler case was always presented second and one-half received the male and one-half the female version. In all experimental conditions the printed instructions read as follows:

> The purpose of this study is to try to get at the processes or reasoning involved in making a diagnosis. We are particularly interested in the way in which symptoms are grouped or clustered in the diagnostic process. You will hear three different taped recordings of standard intake interviews lasting approximately eight minutes each. The tapes are labeled "Case #1," "Case #2," and "Case 3." After listening to each interview you are asked to diagnose the clients in the same way you would ordinarily diagnose any client and complete the diagnostic questionnaires. After you have completed the questionnaires, please return all materials in the envelope provided.

Chapter 3

RESULTS

Case 1 (Narcissistic and Histrionic Symptoms)

For Case 1, the Narcissistic and Histrionic symptom case, 16 subjects (7 female, 9 male) received the male version while 23 (11 female, 12 male) received the female version. The subjects were first asked to assign an Axis I diagnosis for the case. Only eight (21%) of the subjects assigned an Axis I diagnosis, and of these, seven also assigned an Axis II diagnosis. None of the psychologists diagnosed a major Axis I disorder; three assigned an adjustment disorder and five a V-Code (i.e., problems in living not associated with a mental disorder). They were then asked to rate the presence and severity of organic impairment, clinical depression, substance abuse, and anxiety disorder for the case, and to rate the overall Axis I pathology on Likert-type scales from 1 (not present) to 7 (extremely severe). Table 6 provides the mean ratings of Axis I pathology for both the male and female versions. Results suggest that the subjects did not see the case as an Axis I disorder. Subjects' ratings were analyzed by means

Table 6. Mean Ratings of Severity of Axis I Symptoms and Overall Axis I Pathology for the Narcissistic-Histrionic Case (Case 1)

	Version of Case		
Axis I Symptom	Male	Female	Across Versions
Organic Impairment	1.00(.00)	1.04(.21)	1.03(.16)
Clinical Depression	1.44(.63)	1.57(.51)	1.51(.56)
Substance Abuse	1.00(.00)	1.05(.21)	1.03(.17)
Anxiety Disorder	1.50(.82)	1.35(.57)	1.41(.68)
Overall Pathology	1.47(.64)	1.50(.96)	1.69(.86)

Note. Means represent the severity of Axis I symptoms or overall pathology on a scale from 1 (not present) to 7 (extremely severe).

Note. First number represents mean, standard deviation in parenthesis.

of t-tests and resulted in no significant differences between the male and female versions for organic impairment, $t(37) = -1.11$, $p > .05$, clinical depression, $t(33) = -.76$, $p > .05$, substance abuse, $t(33) = -.83$, $p > .05$, anxiety disorder, $t(37) = .68$, $p > .05$, or overall Axis I pathology, $t(35) = -.11$, $p > .05$. (Some subjects did not rate Axis I symptoms or pathology if they did not assign an Axis I disorder, and some rated most but not all of the disorders). Order effects (whether Case 1 was received first or last) were also examined for Axis I ratings. Order had a significant effect on the overall Axis I pathology ratings, $t(35) = 2.15$, $p < .05$. Case 1 was rated as more pathological when it was presented first and less

pathological when presented last. Order did not affect the other Axis I ratings.

The subjects were then asked to assign an Axis II (i.e., personality disorder) diagnosis. The majority of the subjects (56%) diagnosed the case as Narcissistic PD, followed by Histrionic PD (18%), and PD NOS (i.e., Not Otherwise Specified--a personality disorder characterized by symptoms from two or more personality disorders, but does not meet criteria for any one), suggesting the subjects saw the case as more Narcissistic than Histrionic (see Table 7). The effect of order on Axis II diagnoses was also examined. Chi-square analysis revealed that the subjects were significantly more likely, $\chi^2(2, \underline{N} = 41) = 7.19$, $\underline{p} < .05$, to diagnose Case 1 as Narcissistic when they received the case last and as other personality disorders if they received Case 1 first.

The diagnoses for the male and female versions of the case are also presented in Table 7. While the majority of subjects (69%) who received the male version of the case diagnosed Narcissistic PD, less than one-half of the subjects who received the female version of the case assigned Narcissistic. Twenty-two percent of the subjects who received the female version assigned Histrionic PD, while 13% who received the male version assigned Histrionic. While this suggests a trend that the subjects were more inclined to diagnose the male than the female version as Narcissistic and the female than the male version as

Table 7. Frequency and Percentage of Clinicians Assigning Specific DSM-III-R Personality Disorders to the Male and Female Versions of the Narcissistic-Histrionic Case (Case 1)

	Version of Cases		
Diagnoses	Male (N=16)	Female (N=23)	Both (N=39)
Narcissistic	11(69%)	11(48%)	22(56%)
Histrionic	2(13%)	5(22%)	7(18%)
Borderline	—	2(9%)	2(5%)
Obsessive-Compulsive	1(6%)	—	1(3%)
PD NOS	1(6%)	5(22%)	6(15%)
Diagnosis Deferred	1(6%)	—	1(3%)
No Diagnosis	—	2(9%)	2(5%)

Note. For the chi-square analysis, diagnoses other than the two of interest (Narcissistic and Histrionic) were combined into "other."

Note. For the female version some subjects assigned more than one diagnosis.

Histrionic, results of a chi-square analysis were not significant for the effect of sex of patient on diagnostic impression, $\chi^2(2, N = 41) = 2.43$, $p > .05$. (For the chi-square analysis, diagnoses other than the two of interest were combined into an "other diagnosis" category. Also, two subjects assigned more than one diagnosis to the female case). Additionally, while subjects were generally willing to assign a diagnosis to the male version of the case, mostly Narcissistic PD, the picture was not as clear for the female version of the case, with 40% assigning PD NOS, Borderline PD, or no diagnosis. Order effects were also examined for male and female versions of the cases.

Chi-square analysis for the effect of sex of patient on diagnosis controlling for order resulted in no significant effect for order 1, $\chi^2(2, \underline{N} = 18) = 1.25$, $\underline{p} > .05$, or order 2, $\chi^2(2, \underline{N} = 23) = .96$, $\underline{p} > .05$.

Table 8 provides a list of the percentages of male and female subjects who assigned the three diagnostic categories for the male and female versions of the case. A chi-square revealed no significant effect of sex of subject on diagnosis, $\chi^2(2, \underline{N} = 41) = 2.60$, $\underline{p} > .05$. However, for male subjects, the male case was diagnosed as Narcissistic by the majority (78%), while only one-third assigned it to the female case. In contrast, no diagnoses of Histrionic were assigned to the male case by male subjects, while 17% diagnosed Histrionic for the female case. Generally, male subjects responded in the predicted direction. In contrast, female subjects assigned Narcissistic PD approximately equally to male and female versions and used Histrionic equally for the male and female case. However, a chi-square used to analyze the frequency of diagnosis for the male and female versions of the case while controlling for sex of subject showed no significant effect of sex of patient on diagnostic impression for male subjects, $\chi^2(2, \underline{N} = 21) = 4.48$, $\underline{p} > .05$, or for female subjects, $\chi^2(2, \underline{N} = 20) = .24$, $\underline{p} > .05$.

Chi-square was also used to determine if the number of years of clinical experience of the subjects had any effect on their diagnostic impressions. Subjects were divided into

Table 8. Percentage of Male and Female Subjects Assigning Specific Personality Disorder Diagnoses to the Two Versions of the Narcissistic-Histrionic Case (Case 1)

	Male Subjects (N=21)			Female Subjects (N=18)		
	Version of Case			Version of Case		
Diagnosis	M (N=9)	F (N=12)	Both (N=21)	M (N=7)	F (N=11)	Both (N=18)
Narcissistic	7(78)	4(33)	11(52)	4(57)	7(64)	11(61)
Histrionic	—	2(17)	2(10)	2(29)	3(27)	5(28)
Borderline	—	1(8)	1(5)	—	1(9)	1(6)
Obsessive-Compulsive	1(11)	—	1(5)	—	—	—
PD NOS	—	3(25)	3(14)	1(14)	2(18)	3(17)
Diagnosis Deferred	1(11)	—	1(5)	—	—	—
No Diagnosis	—	2(17)	2(10)	—	—	—

Note. First number represents frequency, percent in parenthesis.

Note. For the chi-square analysis, diagnoses other than the two of interest (Narcissistic and Histrionic) were combined into "other."

Note. For the female version two female subjects assigned more than one diagnosis.

three groups based on years of clinical experience: 0-9 years, 10-19 years, and 20 or more years. The results showed no significant effect of years of clinical experience, $\chi^2(4, N = 41) = 1.79$, $p > .05$, on diagnostic impression.

Subjects' ratings of the overall Axis II pathology and chronicity presented in the cases were analyzed by means of the t-test. The results of the analysis showed no significant difference between the mean ratings of pathology, $t(36) = .73$, $p > .05$, or chronicity, $t(36) = 1.55$, $p > .05$ between the male and female versions (one

subject did not assign ratings for either pathology or chronicity). The mean ratings of pathology (male: mean = 4.87, SD = .92; female: mean = 4.61, SD = 1.16) on a scale of 1 (not present) to 7 (extremely severe), suggest that the subjects considered the cases as presenting a moderately severe level of pathology. The mean chronicity ratings (male: mean = 5.40, SD = .83; female: mean = 4.83, SD = 1.14) on a scale of 1-7, suggest the case presented a moderate to severe level of chronicity. Order effects were also examined for pathology and chronicity. There was no significant difference between pathology ratings for subjects who received Case 1 first or last, $\underline{t}(36) = .58$, $\underline{p} > .05$, but there was a significant difference between chronicity ratings, $\underline{t}(36) = 2.11$, $\underline{p} < .05$, with subjects giving higher chronicity ratings when Case 1 was presented first (mean = 5.47, SD = .72), and lower ratings when Case 1 was presented last (mean = 4.71, SD = 1.31).

The subjects were asked, in an open-ended question, what, if any, treatment they would recommend. The majority (95%) recommended psychotherapy, while the remainder (5%) responded "no recommendation." As seen in Table 9, the majority of subjects recommended psychotherapy for both versions of the case. A chi-square analysis demonstrated a nonsignificant effect of sex of the patient on treatment recommendation, $\chi^2(1, \underline{N} = 39) = 3.03$, $\underline{p} > .05$. Chi-square analysis also showed no significant effect of sex of subject on treatment recommendation, $\chi^2(1, \underline{N} = 39) = 1.81$, $\underline{p} > .05$,

although there was a trend for female subjects to be more likely to recommend treatment overall. There were no differences in treatment recommendations for subjects receiving Case 1 first or last.

Table 9. Percentage of Subjects Recommending Treatment for the Narcissistic-Histrionic Case (Case 1)

	Male Subjects			Female Subjects		
	Version			Version		
Treatment	Male (N=9)	Female (N=12)	Both (N=21)	Male (N=7)	Female (N=11)	Both (N=18)
Psychotherapy	78	100	91	100	100	100
No Recommendation	22	—	10	—	—	—

Treatment recommendations for the male and female version of the case were also analyzed for the male subjects only since all female subjects recommended psychotherapy. Chi-square analysis showed no significant effect of sex of patient on treatment recommendation, $\chi^2(1, N = 21) = 2.95$, $p > .05$ for the male subjects, despite the trend for more male subjects to recommend psychotherapy for the female than the male version.

The subjects were also asked to rate the likelihood that the patients would improve with the following treatment strategies: (1) antidepressant medication; (2) antianxiety medication; and (3) psychotherapy. Table 10 provides a list of the mean ratings for the case overall and the male and female versions of the case for the three treatment strategies. The ratings suggest that subjects did not see the pharmaceutical treatments as likely to be beneficial,

while psychotherapy was moderately likely to lead to improvement. Subjects' mean ratings for the male and female versions were similar across the three treatment strategies and the analysis of the data, by means of t-tests, proved to be nonsignificant, $t(37) = .11$, $p > .05$ (antidepressant), $t(37) = 1.14$, $p > .05$ (anxiolytic), and $t(37) = 1.05$, $p > .05$ (psychotherapy). There were no differences in any treatment ratings for subjects receiving Case 1 first or last.

Table 10. Mean Ratings of Likelihood of Improvement for the Three Treatment Strategies for the Narcissistic-Histrionic Case (Case 1)

Treatment Strategies	Version of Case		
	Male	Female	Across Versions
Antidepressant	1.19(0.40)	1.17(0.39)	1.18(0.62)
Anxiolytic	1.25(0.58)	1.09(0.29)	1.17(0.69)
Psychotherapy	3.73(1.10)	3.35(1.11)	3.54(0.18)

Note. Means represent the likelihood of improving with that treatment strategy using a scale of 1 (not likely) to 7 (extremely likely).

Note. First number represents means, standard deviation in parenthesis.

Case 3 (Borderline and Sadistic Symptoms)

For Case 3, the Borderline and Sadistic symptoms case, 23 subjects (12 males, 11 females) received the male version, while 16 subjects (9 males, 7 females) received the female version. Fifteen subjects (38%) assigned an Axis I diagnosis, which was about twice as many as for Case 1. Six

assigned an Adjustment disorder and eight a V Code (problems in living), while only one assigned a major Axis I disorder (Dysthymia). All of these subjects, however, also assigned an Axis II personality disorder. As in Case 1, the subjects were also asked to rate the presence and severity of organic impairment, clinical depression, substance abuse, and anxiety disorder for the case, and to rate the overall Axis I pathology on Likert-type scales from 1 (not present) to 7 (extremely severe). Table 11 provides the mean ratings of Axis I pathology for both versions. As for Case 1, subjects did not conceptualize the case as demonstrating significant Axis I symptomatology. Subjects' severity ratings for the male versus female version were analyzed by means of t-tests and resulted in no significant differences for organic impairment, $t(35) = -.43$, $p > .05$, clinical depression, $t(36) = 1.16$, $p > .05$, substance abuse, $t(32) = -.36$, $p > .05$, anxiety disorder, $t(36) = .11$, $p > .05$, or overall Axis I pathology, $t(35) = -.17$, $p > .05$. (Some subjects did not rate Axis I symptoms or pathology if they did not assign an Axis I disorder, and some rated most but not all of the disorders). There were no significant differences in any Axis I ratings for subjects receiving Case 3 first or last.

The Axis II diagnoses assigned by the subjects are presented in Table 12. Thirteen (33%) diagnosed the patient as Borderline PD, an equal number assigned PD NOS, while only three (8%) assigned Sadistic PD, suggesting that

Table 11. Mean Ratings of Severity of Axis I Symptoms and Overall Axis I Pathology for the Borderline-Sadistic Case (Case 3)

	Version of Case		
Axis I Symptom	Male	Female	Across Version
Organic Impairment	1.04(0.21)	1.07(0.27)	1.05(0.23)
Clinical Depression	2.17(1.03)	1.80(0.77)	2.03(0.94)
Substance Abuse	1.10(0.03)	1.15(0.55)	1.12(0.41)
Anxiety Disorder	1.35(0.49)	1.33(0.62)	1.33(0.53)
Overall Pathology	2.00(1.24)	2.07(1.21)	2.03(1.21)

Note. Means represent the severity of Axis I symptoms or overall pathology on a scale from 1 (not present) to 7 (extremely severe).

Note. First number represents mean, standard deviation in parenthesis.

subjects viewed the case as more representative of Borderline than Sadistic. In addition, less than half assigned one of the two personality disorders being presented in the case, and a large number assigned PD NOS, suggesting that the case was not clear to the subjects. Order did not affect Axis II diagnoses; there was no significant difference between personality disorder diagnoses assigned to Case 3 by subjects receiving Case 3 first or last, $\chi^2(2, N = 39) = 3.88$, $p > .05$.

The diagnoses assigned to male and female versions of the case were also examined. As seen in Table 12, the subjects appeared to be fairly evenly matched across the two versions in their assignment of diagnoses except for Sadistic PD. Male and female versions of the case were

diagnosed as Borderline by 30% and 38% of the subjects, respectively; however, all three diagnoses of Sadistic were assigned to the male version of the case. A chi-square

Table 12. Frequency and Percentage of Clinicians Assigning Specific DSM-III-R Personality Disorders to the Male and Female Versions of the Borderline-Sadistic Case (Case 3)

	Version of Case		
Diagnosis	Male (N=23)	Female (N=16)	Both (N=39)
Borderline	7(30)	6(38)	13(33)
Sadistic	3(13)	—	3(8)
Antisocial	2(9)	—	2(5)
Histrionic	—	1(6)	1(3)
Narcissistic	—	1(6)	1(3)
Passive-Aggressive	1(4)	—	1(3)
Paranoid	1(4)	—	1(3)
PD NOS	7(30)	6(38)	13(33)
Diagnosis Deferred	—	1(6)	1(3)
No Diagnosis	2(9)	1(6)	3(8)

Note. First number represents frequency, percent in parenthesis.

Note. For the chi-square analysis, diagnoses other than the two of interest (Borderline-Sadistic) were combined into "other."

analysis resulted in a nonsignificant effect of sex of the patient on diagnostic impression, $\chi^2(2, N = 39) = 2.29$, $p > .05$. (For the purposes of chi-square analysis, diagnoses other than the two of interest were combined into an "other diagnosis" category). The effect of order on Axis II diagnoses for the male and female versions was also examined. Chi-square analysis revealed no differences in

diagnoses assigned to the male and female versions for subjects receiving Case 3 first, $\chi^2(1, N = 39) = 1.15$, $p > .05$, or last, $\chi^2(2, N = 39) = 3.15$, $p > .05$.

Table 13 provides a list of the percentages of male and female subjects who assigned specific personality disorder diagnoses to the case. Chi-square analysis showed a significant effect of sex of subject on diagnosis, $\chi^2(2, N = 39) = 5.81$, $p < 05$. Female subjects assigned more diagnoses of Borderline, while male subjects assigned more diagnoses of Sadistic; in fact, no female subject used the latter diagnosis.

Table 13. Percentage of Male and Female Subjects Assigning Specific Personality Disorder Diagnoses to the Two Versions of the Borderline-Sadistic Case (Case 3)

	Male Subjects (N=21)			Female Subjects (N=18)		
	Version of Case			Version of Case		
Diagnosis	M (N=12)	F (N=9)	Both (N=21)	M (N=11)	F (N=7)	Both (N=18)
Borderline	1(8)	3(33)	4(19)	6(55)	3(43)	9(50)
Sadistic	3(25)	—	3(14)	—	—	—
Antisocial	1(8)	—	1(5)	1(9)	—	1(6)
Histrionic	—	1(11)	1(5)	—	—	—
Narcissistic	—	1(11)	1(5)	—	—	—
Passive-Aggressive	—	—	—	1(9)	—	1(6)
Paranoid	1(8)	—	1(5)	—	—	—
PD NOS	4(33)	3(33)	7(33)	3(27)	3(43)	6(33)
Diagnosis Deferred	—	1(11)	1(5)	—	—	—
No Diagnosis	2(17)	—	2(10)	—	1(14)	1(6)

Note. First number represents frequency, percent in parenthesis.

Note. For the chi-square analysis, diagnoses other than the two of interest (Borderline-Sadistic) were combined into "other."

Chi-square was also used to analyze the frequency of diagnosis for the male and female versions of the case while controlling for sex of subject. There was a nonsignificant effect of sex of the patient on diagnostic impression for male subjects, $\chi^2(2, \underline{N} = 21) = 3.94$, $\underline{p} > .05$ and for female subjects, $\chi^2(1, \underline{N} = 18) = .23$, $\underline{p} > .05$. However, there were some interesting trends, with male subjects responding in the direction of the hypotheses. While only 8% of the male subjects who received the male version of the case diagnosed it as Borderline, 33% who received the female version called it Borderline. Further, none of the male subjects who received the female version of the case called it Sadistic, while 25% of those who received the male version of the case did. In contrast, the female subjects diagnosed Borderline approximately equally for male and female versions of the case and none used Sadistic for either version.

Chi-square analysis was also used to determine if the number of years of clinical experience affected the subjects' diagnostic impressions. Subjects were divided into three groups according to their years of experience: 0-9 years, 10-19 years, and 20 or more years. The results showed no effect for the number of years of clinical experience on diagnoses, $\chi^2(4, \underline{N} = 39) = 8.54$, $\underline{p} > .05$, however, there was a trend for the most experienced clinicians to diagnose Sadistic.

The mean ratings of the overall Axis II pathology and chronicity of the case were analyzed by t-tests. The

results showed no significant differences between the male and female versions for pathology, $t(37) = .74$, $p > .05$, or chronicity, $t(36) = 1.70$, $p > .05$. (One subject did not assign a chronicity rating). The mean ratings of pathology (male: mean = 5.09, SD = .90; female: mean = 4.88, SD = .89), and chronicity (male: mean = 5.50, SD = .86; female: mean = 4.94, SD = 1.18) suggest that the subjects viewed the cases as presenting moderately severe and chronic pathology. Order was also examined for the pathology and chronicity ratings. There were no significant differences in mean ratings of pathology, $t(37) = 1.86$, $p < .05$ or chronicity, $t(36) = 1.70$, $p < .05$ between the subjects who received Case 3 first and those who received it last.

For the open-ended treatment recommendation question, the majority of the subjects (87%) recommended psychotherapy, 3% recommended a combination of psychotherapy and medication, and 10% responded "no recommendation." The treatment recommendations for male and female versions of the case were also examined. As seen in Table 14, the majority of the subjects recommended psychotherapy for both versions of the case. Chi-square analysis showed a nonsignificant effect of sex of patient on treatment recommendation, $\chi^2(2, N = 39) = .83$, $p > .05$. There were no significant differences for treatment recommendations between subjects who received Case 3 first or last.

Chi-square was used to analyze the effect of sex of subject on treatment recommendation. Results were not

Table 14. Percentage of Subjects Recommending Treatment for the Borderline-Sadistic Case (Case 3)

	Male Subjects			Female Subjects		
	Version			Version		
Treatment	M (N=12)	F (N=9)	Both (N=21)	M (N=11)	F (N=7)	Both (N=18)
Psychotherapy	92	89	91	82	86	83
Combination	8	—	5	—	—	—
No Recommendation	—	11	5	18	14	17

significant, $\chi^2(2, N = 39) = 2.25$, $p > .05$. Treatment recommendations for the male and female versions were also analyzed using chi-square and controlling for sex of subject. Again the results were nonsignificant for male subjects, $\chi^2(2, N = 21) = 2.09$, $p > .05$, or female subjects, $\chi^2(1, N = 18) = .05$, $p > .05$. Both male and female subjects tended to recommend psychotherapy for both versions of the case; however, there was a trend for female subjects to suggest no recommendation (see Table 14).

The ratings of the likelihood that the male or female patient would improve with the three treatment strategies (antidepressant medication, antianxiety medication, and psychotherapy) are presented in Table 15. T-tests showed no significant differences in mean ratings between the male and female versions, $t(37) = 1.59$, $p > .05$ (antidepressant), $t(37) = .49$, $p > .05$ (anxiolytic), and $t(37) = .39$, $p > .05$ (psychotherapy), although there was a trend for antidepressant to be rated more likely to lead to

Table 15. Mean Ratings of Likelihood of Improvement for the Three Treatment Strategies for the Borderline-Sadistic Case (Case 3)

	Version of Case		
Treatment Strategies	Male	Female	Across Versions
Antidepressant	1.65(0.93)	1.25(0.45)	1.49(0.13)
Anxiolytic	1.17(0.49)	1.25(0.45)	1.21(0.08)
Psychotherapy	3.17(0.78)	3.31(1.45)	3.23(0.17)

Note. Means represent the likelihood of improvement with that treatment strategy on a scale of 1 (not likely) to 7 (extremely likely).

Note. First number represents mean, standard deviation in parenthesis.

improvement for the male version. As in Case 1, the subjects' mean ratings for both versions were consistently similar across the three treatment strategies and indicated a preference for psychotherapy as the treatment most likely to benefit the patients. Order effects were also examined and resulted in no significant differences in ratings for antidepressants, anxiolytics, or psychotherapy.

Chapter 4

DISCUSSION

Generally, the results of this study did not support the hypotheses concerning sex bias in the diagnosis of Narcissistic, Histrionic, Borderline, or Sadistic PD. In Case 1, the diagnoses of Histrionic and Narcissistic PD were not significantly affected by the sex of the patient presented in the interview. However, there were some trends in the hypothesized direction for the male subjects only; the male case received more diagnoses of Narcissistic than the female case, and the female case received more Histrionic diagnoses than the male case, for which no Histrionic diagnoses were assigned by the male subjects. Similarly, in Case 3, the diagnoses of Sadistic and Borderline were not significantly affected by sex of the patient. However, the only diagnoses of Sadistic were assigned to the male version of the case. Again, male subjects tended to respond in the direction of the hypotheses assigning more diagnoses of Borderline to the female than the male case, and assigning the only Sadistic diagnoses to the male version.

Generally, subject variables (sex of subject, years of experience) did not significantly affect diagnoses assigned to the cases, with the exception of Case 3, to which female subjects assigned more diagnoses of Borderline and male subjects assigned more diagnoses of Sadistic. Female subjects did not use the Sadistic diagnosis at all, perhaps due to the controversy regarding sex bias which has been linked to this category, or the fact that it is not an official diagnosis in the DSM-III-R. It is also notable that while not significant, male subjects tended to respond in the direction of the hypotheses and the female subjects did not. These trends may suggest that male clinicians are more likely to use gender as a basis for diagnosing specific personality disorders. Whether these trends are suggestive of sex bias in diagnosis or not is unclear. Using base rate information to assign diagnoses in situations of uncertainty is not unreasonable and does not in itself suggest a bias. For example, if the prevalence of Borderline PD is much higher in females than in males, it is prudent to use gender as one piece of information when assigning a diagnosis to an ambiguous case. The trends shown by the male subjects are consistent with the beliefs about the base rates of these disorders in males and females. However, one problem is that the actual base rates of personality disorders in males versus females have not been established. For example, in contrast to clinical studies in which Histrionic PD is diagnosed more often in females, Nestadt, Romanoski, Chahal

et al. (1990) found no gender difference in the prevalence of Histrionic PD in a community sample. However, it could be argued that the results from clinical samples may be more appropriate to use in diagnostic decision making. Another problem is that if base rate data are based on diagnoses biased by clinician gender bias, then using these base rates to assign more diagnoses of certain personality disorders to males and others to females would be tautological.

The subjects' number of years of clinical experience also did not significantly affect their diagnostic assignments; there was very little difference between the experienced and less experienced psychologists. This latter result is consistent with previous research in which experience does not play a significant role in diagnoses assigned (e.g., Warner, 1978). However, there was a trend for more experienced clinicians to assign Sadistic to Case 3; in fact, all three diagnoses were assigned by clinicians at the most experienced level. The implication of this trend is unclear, particularly since it is unrelated to theoretical orientation.

Results of this study were not consistent with previous findings in the literature concerning gender bias in the diagnosis of Histrionic and Borderline PD. Differences in methodology may account for the inconsistencies between the findings of the present and past studies. For example, previous studies (Warner, 1978; Hamilton et al., 1986; Widiger, 1989) presented subjects with a restricted number

of diagnostic choices while subjects in the present study were given a choice of all the personality disorders including PD NOS. Given that the cases presented symptoms from two disorders but failed to meet criteria for either one, it is not surprising that a fairly large percentage assigned PD NOS, an option not available in the other studies, thus potentially weakening the gender effect. Further, one of the target diagnoses in Case 3, Sadistic PD, is a proposed category in the DSM-III-R. Subjects may not have been as familiar with its diagnostic criteria or may have been unwilling to assign a diagnosis not an official part of the classification. In addition, Sadistic PD is a controversial category that was included in the DSM-III-R appendix, along with Self-defeating PD, because of lack of evidence of its validity, and the concern over sex bias.

Another possible reason for the differences between the findings of the present study and earlier research may be the increased attention given to gender bias lately, leading to increased sensitivity to the issue. It may be that clinicians are currently more aware of issues concerning bias in diagnosis. In addition, the trends in this study for male clinicians more closely resembled the results of previous studies in the literature, which included a higher percentage of male subjects (e.g., 76% in Ford & Widiger).

Another methodological difference is that the earlier studies used the DSM-II or DSM-III, while the present study used the DSM-III-R. One change from the DSM-II to the DSM-

III was the use of more specific operational definitions in order to increase reliability of diagnoses; however, personality disorder criteria were relatively trait-oriented. During the revision of the DSM-III, an attempt was made to include more behaviorally anchored criteria for personality disorders. Hamilton et al. (1986) speculated that bias is less evident in diagnosis when more behaviorally specific criteria are used for diagnoses. Thus, one would expect less bias using the DSM-III-R than with earlier versions of the manual. In addition, the present study utilized audiotaped simulated interviews rather than written case histories. Since bias is more likely to occur when clinicians are given less information, the longer and more detailed interviews used in this study may have decreased the tendency to use gender or other demographic information in situations of uncertainty.

Looking at the ratings assigned by clinicians, there were no differences in either pathology or chronicity for the male versus female versions of either case, and both cases were seen as presenting moderately severe pathology and chronicity.

Gender of the patient also did not affect subjects' treatment recommendations or ratings of likelihood of improvement for the three treatment strategies. Nearly all of the subjects recommended psychotherapy for both versions of both cases, and rated psychotherapy as moderately likely to be beneficial while antidepressants or anxiolytics would

be unlikely to help. These findings would be expected given that the cases were conceptualized as Axis II personality disorders, and psychotherapy is generally the treatment of choice with psychotropic medication seen as having little benefit or being only ancillary. Clinicians rated the likelihood of improvement with psychotherapy as only moderate, however, due to the difficulty in successfully treating personality disorders. In addition, neither subject gender or years of clinical experience had an effect on treatment recommendations for either case as would be expected, since even less experienced clinicians should be familiar with the basic guidelines for treating personality disorders.

The findings of several order effects possibly due to carry-over effects between the cases was somewhat unexpected. Case 1 was rated as less severe (Axis I) and less chronic when it was presented last compared to first. These findings may reflect a contrast effect such that Case 1 seemed less severe and chronic after the more pathological and chronic Case 3 had been presented. Case 1 also received more Narcissistic diagnoses when presented last and more "other" category diagnoses when presented first, probably reflecting uncertainty or hesitation to assign a specific diagnosis at the beginning of the task and increased confidence later in the task. This effect may confound the interpretation of the diagnostic data given the unequal number of subjects receiving the case first or last.

There are a number of possible limitations of the present study. First, the cases may have appeared unclear in their symptom presentation. While the clinicians viewed the cases as presenting Axis II rather than Axis I symptomatology, there was some suggestion from the pilot studies that Case 1 more clearly presented Narcissistic than Histrionic symptoms, and that Case 3 was more representative of Borderline than Sadistic, which is consistent with the diagnoses assigned by subjects (i.e., Case 1 received more Narcissistic diagnoses and Case 3 received more Borderline diagnoses). In addition, the purpose of the study may not have been disguised adequately. For example, the use of mixed symptom cases or symptoms from Histrionic, Borderline, and Sadistic PD, diagnoses which have been associated with sex bias, may have alerted clinicians to the purpose of the study. Further, despite the pilot study results, there may have been subtle differences between the male and female versions of the tapes, such as intonation, rate of speech, affect, etc. that resulted in clinicians responding differently to the case depending on which version they received. It is also possible that more or less experienced clinicians may have responded differently to these factors.

A further limitation of the study concerns the generalizability of recorded scripts to actual cases and the generalizability of subjects' responses to the diagnostic practices of clinicians. Although pilot studies were conducted, the subjects may have found the recorded cases

unrealistic or atypical of actual cases. Both the believability and typicality ratings for the cases were only moderate. The audiotaped format was utilized in order to increase the generalizability of results compared to earlier studies using short written cases. However, in clinical practice, clinicians do not assign a diagnosis after an eight minute interview; in a study of this nature, there is an implied demand to assign a diagnosis despite a high level of uncertainty. Subjects may be willing to assign a diagnosis they would not in clinical practice because there are no consequences to a real patient. Further, an audiotaped format does not provide access to nonverbal cues and behaviors that are often quite diagnostic. Finally, the actors may have failed to portray the patients with the nuances in verbal behavior seen with actual patients with different personality disorders. A further limitation with the stimuli was that these cases were designed to manifest only Axis II pathology, while individuals with personality disorders typically present for treatment during an acute crisis and manifest both Axis I and Axis II pathology. The generalizability of these results to other psychologists in the country, to psychiatrists, or to other mental health professionals is also unknown. In fact, the small sample size suggests the results may not be representative of psychologists in Indiana. Since only a small portion of the subjects contacted actually completed the study, those

subjects who participated may have differed from those who did not.

The relatively small sample size may have also contributed to the lack of significant results or the diagnostic trends noted. For example, subjects who received the male or female version of a case may have differed in some ways such as years of experience or theoretical orientation. There was no attempt to balance the groups according to these factors. In addition, because the design was between subjects, it is unknown whether diagnoses assigned to the male and female versions of the cases reflect gender of the case or subjects' differences in diagnostic practices.

Another confounding factor was the order that the cases were presented. While order was partially counterbalanced to control for carry-over effects between the cases, there was not a complete counterbalancing of cases and, as noted earlier, carry-over effects did occur between the cases.

In summary, the present study failed to support the literature showing a sex bias in diagnosis of personality disorders; however, there were trends in the hypothesized directions for male psychologists and the small sample size may have contributed to the lack of significant results. The inconsistency with past research may be due to methodological differences, such as the open-ended diagnostic format, differences in the samples, or recent attention given to gender bias in diagnoses. Female

subjects responded similarly to male and female versions of the cases, while male subjects tended to assign diagnoses differently according to the gender of the patient. Whether these differences reflect gender bias, the use of base rates, or differences in subject characteristics and diagnostic practices is unclear and points to the need for additional research to investigate the role of these factors in diagnostic decision making.

Considerations for future research might be the use of actual patient interviews as opposed to simulated interviews or written vignettes; videotaped interviews instead of audiotaped interviews; using a larger and broader sample of clinicians, including other mental health professionals, such as psychiatrists, and a national sample; and looking at the effect of other patient variables (e.g., age, race, socioeconomic status) and subject variables (e.g., theoretical orientation, type of mental health professional) on the diagnosis of personality disorders. The inclusion of Sadistic PD in future research might be important considering the controversy surrounding the inclusion of this disorder in the appendix of DSM-III-R, and likely elimination of this category in DSM-IV as proposed in the DSM-IV Options Book (American Psychiatric Association, 1991) and DSM-IV Draft (American Psychiatric Association, 1993).

REFERENCES

American Psychiatric Association (1968). Diagnostic and statistical manual of mental disorders (2nd ed.). Washington, DC: Author.

American Psychiatric Association (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.

American Psychiatric Association (1987). Diagnostic and statistical manual of mental disorders (3rd ed., rev.). Washington, DC: Author.

American Psychiatric Association (1991). DSM-IV options book. Washington, DC: Author.

Blashfield, R. K., McElroy, R. A., Davis, R. T., and Sprock, J. (1991). The DSM-III-R meaning of histrionic personality disorder. Unpublished manuscript.

Broverman, I., Broverman, D., Clarkson, F., Rosenkrantz, P., & Vogel, S. (1970). Sex-role stereotypes and clinical judgments of mental health. Journal of Consulting and Clinical Psychology, 34, 1-7.

Carmen, E. H., Russo, N. F., & Miller, J. B. (1981). Inequality and women's mental health: An overview. American Journal of Psychiatry, 138, 1319-1330.

Ford, M. R., & Widiger, T. A. (1989). Sex bias in the diagnosis of histrionic and antisocial personality disorders. Journal of Consulting and Clinical Psychology, 57, 301-305.

Gilligan, C. (1979). Woman's place in a man's life cycle. Harvard Educational Review, 49, 431-446.

Gove, W. R., & Tudor, J. (1973). Adult sex roles and mental illness. American Journal of Sociology, 73, 812-835.

Hamilton, S., Rothbart, M., & Dawes, R. M. (1986). Sex bias, diagnosis, and DSM-III. Sex Roles, 15, 269-274.

Henry, K. A., & Cohen, C. I. (1983). The role of labeling processes in diagnosing borderline personality disorder. American Journal of Psychiatry, 140, 1527-1529.

Holden, C. (1986). Proposed new psychiatric diagnoses raise charges of gender bias. Science, 231, 327-328.

Kaplan, M. (1983). A woman's view of DSM-III. American Psychologist, 38, 786-792.

Kass, F., Spitzer, R. L., & Williams, J. B. W. (1983). An empirical study of the issue of sex bias in the diagnostic criteria of DSM-III Axis II personality disorders. American Psychologist, 38, 799-801.

Nestadt, G., Romanoski, A. J., Chahal, R., Merchant, A., Folstein, M. F., Gruenberg, E. M., & McHugh, P. R. (1990). An epidemiological study of histrionic personality disorder. Psychological Medicine, 20, 413-422.

Perlick, D., & Atkins, A. (1984). Variations in the reported age of a patient: A source of bias in the diagnosis of depression and dementia. Journal of Counseling and Clinical Psychology, 52, 812-820.

Philipson I. (1985). Gender and narcissism. Psychology of Women Quarterly, 9, 213-228.

Phillips, D., & Segal, B. E. (1969). Sexual status and psychiatric symptoms. American Sociological Review, 34, 58-72.

Sprock, J., Blashfield, R. K., & Smith, B. (1990). Gender weighting of DSM-III-R personality disorder criteria. American Journal of Psychiatry, 147, 586-590.

Wârner, R. (1978). The diagnosis of antisocial and hysterical personality disorders: An example of sex bias. Journal of Nervous and Mental Disorders, 166, 839-845.

Widiger, T., & Nietzel, M. (1984). Kaplan's view of DSM-III: The data revisited. American Psychologist, 39, 1319-3120.

Williams, J. B. W., & Spitzer, R. L. (1983). The issue of sex bias in DSM-III: A critique of "a woman's view of DSM-III" by Marcie Kaplan. American Psychologist, 38, 793- 798.

APPENDIX A

Case Scripts

Case 1: Narcissistic-Histrionic

Therapist: Last time we met we spent most of the time talking about your family, today I'd like to focus on your problems at work. Tell me what kinds of problems are you having.

Patient: Well, I'm having some difficulties at my job and it might help to talk about it. As you know, my boss told me unless I see someone for therapy he's going to let me go. I can't believe it after all the years I've devoted to that job.

Therapist: Why do you think you are having problems at work?

Patient: I guess what it all boils down to is that I'm not appreciated. I've invested 10 years of my career there; I guess it's time to go somewhere else where I'm valued and appreciated more. You know, I think they are all jealous of me. I feel that I work harder than anyone else there, and to top it all off they give me the toughest jobs. You'd think that after 10 years with that company I'd get a break. They should be giving me some of the better jobs and give the lousy ones to the new people.

Therapist: Is there anyone in particular who doesn't appreciate you?

Patient: Well, for starters my boss; he hardly notices me no matter what I do. I've tried doing some extra work to impress him, but that hasn't worked. I've invested a lot of time and money in looking good. I spend about half of my salary on clothes so I'll look professional and attractive. I also keep myself fit and trim by working out, still no results. Most people think I look pretty good, I just don't know why he doesn't notice.

Therapist: What are you expecting from your boss?

Patient: I expect a raise and a promotion. After all these years I deserve more from them. I've tried everything, like last week for instance. I had a very big project to do, and I wanted to turn it in early to impress the boss. So, I had the new girl help me with it, even though she really didn't want to. I bent the rules a little and told her it was part of her job. After the project was finished, I turned it in to the boss, and I kind of neglected to mention she had helped.

Therapist: How do you feel about using her that way?

Patient: Well, that's the way the world is you know, you have to look out for yourself. I just had to get this project done and in early, anyway, I'm sure she would have done the same thing if she had the chance.

Therapist: What did your boss say after you turned the project in early?

Patient: He just said 'good job' and hardly even seemed to notice. I thought I did a really great job. I put so much effort into it. I put the rest of my life on hold while I was working on that project.

Therapist: Have you ever thought of expressing yourself outright to your boss and asking for a raise or promotion?

Patient: I sure have, about a year ago. It was a total waste of time. I tried telling him about all my contributions to the company, and all the time I've sacrificed. I told him how much this company means to me. All that didn't seem to matter though. He said that my work record was satisfactory, but it wasn't exceptional and I was not entitled to special considerations. I was absolutely furious.

Therapist: You seem dissatisfied with your job and unappreciated. But when you first came in you said that your boss told you to get therapy or he was going to let you go. Is there some reason in particular or maybe some conflict with coworkers that prompted your boss to refer you.

Patient: Well..., I had a run in with the senior manager a couple of weeks ago. You see I just thought that if I got closer to him/her I would have a better chance of getting what I want. I know he/she is really attracted

to me, and I thought I could turn the situation to my advantage.

Therapist: What did you do?

Patient: I guess I flirted a little and came on to him/her a little bit. I thought I was being subtle, but I guess I wasn't.

Therapist: What did he/she do?

Patient: I guess he/she must have thought I came on too strong and reported me to the boss saying I was being inappropriate. He/she also told the boss that my clothes are inappropriate and too flashy for the office. Can you believe that, with all the time and money I spend on my wardrobe.

Therapist: Well, how can I help you deal with your problems at work?

Patient: I don't know you're the expert.

Therapist: Well, how do you think your difficulties at work tie in to your other problems we've been working on in here?

Patient: I don't know, maybe I making too much out of the whole situation. I've been told by people that I tend to exaggerate my emotions. I would really like to keep this job. I just wish my boss would appreciate me and give me the recognition I deserve after all these years. The whole situation reminds me of my father. Like I told you last week he just never seemed to give me the attention that he gave my older brother. It

just seemed that no matter what I did to get his approval it wasn't quite good enough.

Therapist: I think we should continue to talk about this more next week. We could also talk more about your situation with your family.

Patient: That would be great. You really are easy to talk to. I wouldn't have to be here talking to you though if they appreciated and understood me like you do.

Case 2: Depression-Anxiety

Therapist: Tell me what brings you in today.

Patient: Well, I'm very worried about work.

Therapist: What seems to be the problem?

Patient: I received a promotion about four months ago, and I'm having trouble getting used to my new responsibilities.

Therapist: Tell me more.

Patient: I was a salesperson before my promotion, and all I had to worry about was making my quotas, now that I'm manager and I have 10 sales people I'm responsible for. It's added a lot of work, and I just don't know how to get it all done.

Therapist: It sounds like you're feeling overwhelmed by your new responsibilities.

Patient: Yeah, I'm really worried. My boss kept telling me he gave me the promotion because I was the most qualified, but I keep thinking I'm going to mess up this great opportunity.

Therapist: Tell me how this problem has affected your work.

Patient: I just can't do my work anymore. I was going to the office and just sitting there doing nothing. I tried to work on something, but I just couldn't concentrate for any length of time.

Therapist: How long have you had difficulty concentrating on your work?

Patient: About the last two months. I just can't get myself to focus on it. I didn't go in to work this past week. I called in sick. I just can't face it.

Therapist: You sound pretty distressed.

Patient: Yes, I am. You know, I've been wondering a lot lately if I did the right thing by taking this job. I guess it's not really more work, but I just can't cut it.

Therapist: You sound pretty down on yourself.

Patient: I guess.....I keep wishing I hadn't taken the job. I should have stayed where I was. It's my own fault for thinking I was better than I was.

Therapist: It sounds like you're really having a rough time. Has this problem affected other areas of your life?

Patient: Well, I just don't feel like doing anything anymore.

Therapist: Give me an example.

Patient: Well, for instance, I usually exercise at the club about three or four times a week, either swim laps or jog, but I haven't felt like working out at all lately.

Therapist: How long have you felt this way?

Patient: Well, the last time I worked out was about three or four weeks ago. I just don't seem to have the energy to do anything but lay on the couch.

Therapist: So you don't seem to have the energy you normally have?

Patient: Definitely. I noticed that I've been exhausted in the evenings, but now that I think about it, I don't seem to have much energy in the mornings either. I'm always tired.

Therapist: In what other ways has your life been affected?

Patient: I don't seem to spend times with friends like I used to. I used to go out every weekend with my friends, but lately I've been putting them off, telling them I'm busy. But the truth is I just don't have the energy or desire to go.

Therapist: So you haven't been going out very much?

Patient: No I haven't. Truthfully, I just don't seem to be able to have much fun anymore. Actually, it's more like I'm not interested in having fun.

Therapist: Have you been having any physical problems?

Patient: Physical problems?

Therapist: Yes.

Patient: Well, my muscles seem to be kind of tight and achy. Especially my neck, shoulders, and legs. Not everyday, but pretty often.

Therapist: How often would you say?

Patient: Oh, about two or three times a week; just over the past two or three weeks, I guess.

Therapist: Have you noticed any other physical symptoms?

Patient: Not that I've noticed. What do you mean?

Therapist: Have you noticed an excellerated heartbeat?

Patient: No.

Therapist: Sweating palms?

Patient: No.

Therapist: Hot flashes?

Patient: No.

Therapist: Any shortness of breath?

Patient: No.

Therapist: Nausea or diarrhea?

Patient: No.

Therapist: When was the last time you saw a physician?

Patient: Last week. He couldn't find anything wrong so he referred me to you.

Therapist: How have you been sleeping?

Patient: I haven't noticed any problems. I guess I get about seven or eight hours sleep every night.

Therapist: How has your appetite been lately?

Patient: It's been fine.

Therapist: How would you describe your mood lately?

Patient: My mood? It's been o.k., a little down sometimes, but not too bad.

Therapist: All right, well, you've given me a lot of useful information, but the more I know about you the better I'll be able to help you with the problems you've been having so I'm going to be asking you some more questions, and I want you to answer me as best you can.

Patient: All right.

Therapist: Tell me, have you ever been to therapy for any reason?

Patient: No.

Therapist: Have you ever thought about hurting yourself in any way?

Patient: Do you mean killing myself?

Therapist: Yes.

Patient: No, I would never do that.

Therapist: O.K., good. Have you ever had any major illnesses now or during your childhood?

Patient: Well, I had the normal childhood diseases. You know chicken pox, measles, flu, nothing serious as an adult, just the flu and colds.

Therapist: Any major surgeries or accidents?

Patient: No. None.

Therapist: Are you currently on any medications?

Patient: No.

Therapist: O.K. Now have you ever in the past or currently used drugs or alcohol?