Sex-Role Attitudes and Clinical Appraisal in Psychiatry Residents

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Objective: To measure sex-role beliefs of psychiatry residents and to examine bias in clinical appraisal.

Method: Residents (45 female, 51 male) evaluated 1 of 4 possible clinical case histories—a female or male patient with histrionic personality disorder (HPD) or antisocial personality disorder (APD)—and completed the Sex-Role Egalitarianism Scale (SRES).

Results: As predicted, female residents were more egalitarian than male residents (P < 0.03) according to the SRES. As expected, significantly more male than female patients received the diagnosis of APD (P < 0.00002). Although it was predicted that female patients would more often be given the HPD diagnosis than males, no significant gender differences were found. Sex of resident was not found to influence clinical behaviour significantly.

Conclusions: These results highlight differential sex-role attitudes, as measured by the SRES, between female and male residents and suggest that residents’ sex-role biases affect the diagnosis of APD. These results have implications for psychiatric assessment and treatment. Further understanding of these issues is critical to the development of educational tools to address sex biases in psychiatry.

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Although previous work has documented sex-role bias in the mental health field (1–7), there has been minimal research that specifically examines this bias in psychiatry. Sex-role stereotyping refers to societal expectations regarding desirable attributes, behaviours, goals, and activities for individuals based on their sex. Studies conducted during the past 2 to 3 decades demonstrated consensual beliefs regarding different personality traits that are used to describe men as compared with women. Prevailing attitudes in our society have traditionally placed greater social desirability and value on stereotypically masculine traits (2,8,9). Although the value attached to stereotypical gender traits today appears to be changing, masculine traits still retain more cultural weighting than feminine traits and are associated with power and control (10). Consequently, role restrictions imposed by sex-role stereotyping have profound implications for the mental health of women.

The present study represents part of a larger, ongoing study examining gender issues in the supervisory relationship. The purpose of the current study was to measure sex-role beliefs of psychiatry residents and to examine bias in the clinical appraisal of psychiatric cases.

Sex-role stereotyping has been shown to occur for individuals of both sexes, with implications for assessment and treatment by mental health professionals. Broverman and others (2) addressed the issue of mental health professionals’ beliefs about women and men. They found that the healthy man was rated as being more similar to the healthy adult than
was the healthy woman. The investigators described a double standard of mental health in which the healthy woman conforms to her sex-role stereotype while simultaneously being viewed as more “unhealthy” by the mental health community. More recent studies (6,11) expand on Broverman and others’ findings. These reports imply that women and men are being judged and treated as more seriously mentally disturbed by clinicians when their diagnosis and behaviour are inconsistent with commonly held sex-role stereotypes. Mental health has been shown to be strongly correlated with an individual’s conformity to gender role prescriptions (6).

To our knowledge, there are very few studies that address psychiatric residents’ sex-role attitudes. The ones that do exist (12,13) find female residents to be more “feminist” in their opinions than their male colleagues. Deaux and Major (14) suggest that individuals’ measures on scales that evaluate gender beliefs should influence subsequent behaviour toward others. We are interested in how these measures translate into clinical appraisal. We hypothesized, therefore, that residents’ sex-role stereotypes would be reflected in their interpretation of symptoms and assignment of diagnostic labels.

**Sex Bias in Diagnosis**

Questionnaires regarding attitudes say little about how psychiatrists actually behave. This study addressed sex-role stereotyping and its implications for diagnosis of personality disorders. Such information will likely influence decisions regarding therapeutic intervention.

**Differential Diagnosis Based on Patient Sex.** There is a body of literature that highlights the powerful effect of patient sex on diagnosis. Although there has been much theorizing regarding clinicians’ behaviour and underlying assumptions, we are not aware of any studies that specifically examine the correlation between clinicians’ sex-role beliefs and diagnostic practices. Differential sex prevalence alone does not necessarily suggest a sex bias in diagnosis: it may reflect differing base rates of a disorder (for example, eating disorders in women, paraphilias in men). For many disorders, for example some personality disorders, however, gender is taken into account despite a lack of conclusive evidence regarding sex prevalence (3). Certain personality disorder diagnoses are more frequently given to women (histrionic, dependent), and other diagnoses are more frequently given to men (antisocial, narcissistic) (1,15). Interestingly, it has been shown that clinicians will assign different diagnoses on the basis of sex even when the individuals exhibit identical symptoms (1,3–5,7). These findings support the notion that the sex of the patient influences diagnosis even when clear-cut diagnostic criteria are presented in vignette form and suggest that clinician sex-role bias can be an important factor in diagnosis.

Warner (7) conducted a study using the DSM-II system and suggested that hysterical and antisocial personality disorders are sex-typed versions of a single condition and that the individual criteria of each disorder are either overlapping or related to sex-role stereotypes.

A study conducted by Hamilton and others (4) expanded on Warner’s study and used the DSM-III. The authors found that histrionic ratings were higher for women than for men at all levels of ambiguity (from all histrionic to all antisocial). In contrast, sex was not significant for the antisocial category. The authors attribute this contrast in sex bias between the 2 diagnoses to the greater specificity of diagnostic criteria for APD than for HPD, but they failed to substantiate this hypothesis in that they did not examine the diagnostic criteria with respect to sex bias. The results could also reflect that the diagnosis of HPD is more compatible with clinicians’ expectations for females than for males.

Ford and Widiger (3) examined the issue of base-rate versus gender bias in the assignment of histrionic and antisocial personality disorders in women and men. The authors found gender bias in the assignment of diagnoses, but analyses of the individual behaviours presented in the case histories indicated that the clinicians did not differentiate between women and men. For the histrionic case, subjects diagnosed HPD more often in females than in males. Conversely, for the antisocial case history, subjects more frequently diagnosed APD in males than in females. The authors concluded that the bias may be associated with the expectations and assumptions of clinicians regarding the diagnostic labels, rather than with the DSM-III criteria.

Opinion about the relevance of a clinician’s sex on diagnosis in the literature is mixed. Of the studies cited, only Loring and Powell (5) and Waisberg and Page (6) found the sex of the evaluator to be an influential factor in patient evaluation. This lack of difference based on clinician sex may not be reliable in all of the studies, as women were underrepresented in several of the samples (3,4).

**Sex Bias in Treatment Recommendations**

Theoretical orientations address the societal context to varying degrees. Clinicians who treat women are faced with 2 choices (16). One choice is for the clinician to work toward reinforcing the status quo in encouraging the woman to accept and accommodate to her environment. The other choice, at the opposite end of the spectrum, is for the clinician to help the woman change her environment. Such an approach represents an acknowledgement that women’s mental health is affected by women’s roles in society and shifts the emphasis from intrapsychic causation to exploration of societal expectations and sex-role messages (17). Given the ideological differences across the continuum of therapeutic models, one might expect a relationship between theoretical orientation and level of egalitarian beliefs among therapists.

In this study, it was hypothesized that female residents would demonstrate more egalitarian attitudes than their male
counterparts. This hypothesis was tested using the SRES (18). We also predicted that 1) diagnoses based on case vignettes would reflect a differential diagnosis by patient sex as demonstrated by Ford and Widiger (3), that is, more males would be diagnosed with APD and more females with HPD, and 2) a correlation would exist between more traditional sex-role attitudes and sex typing in the areas of assessment, diagnosis, and treatment.

Method

The sample consisted of psychiatry residents. The subjects evaluated 1 of 4 possible clinical cases on a variety of variables and then completed a short version of the SRES.

Subjects

All psychiatry residents (N = 119) involved in the University of Toronto program in the academic year 1994–1995 were invited to participate in this study. Of the 119 residents, 3 were not available to participate due to leave of absence, and 2 because of maternity leave. The available sample group consisted of 52 females and 62 males (N = 114). Residents were approached at their weekly meetings at their rotation sites. Appointments for these meetings were arranged by a research assistant with the chief residents at each site. Those residents who were not present at their weekly meeting were contacted individually, and arrangements were made for a research assistant to administer the study. Three refused to participate, and 15 did not return phone calls made to set up an appointment. Demographic data are shown in Tables I and II.

Procedure

The questionnaires were anonymous and administered by a research assistant who was not part of the residency program so as to decrease the risk of subject response bias and coercion. The presence of the research assistant also helped to ensure that subjects did not complete the SRES prior to responding to the cases. Written informed consent was obtained from all subjects who agreed to participate in a study that examines the role of the supervisory relationship in the assessment of clinical cases.

Measures

Case Histories. Subjects were provided with 1 of 4 case histories. The histories were identical with those used by Ford and Widiger (3) for DSM-III APD and HPD, with each case specified as involving either a female or male. These diagnoses were chosen since the literature supports the view that APD is often seen as the prototypically “masculine” personality disorder and HPD as the prototypically “feminine” personality disorder (19). The distribution of cases and the order of case histories per subject were randomized.

The protocol for ratings of the dependent variables were derivatives of those designed by Ford and Widiger (3) and Waisberg and Page (6). Likert rating scales were used for each case to measure the dependent variables of interest. Subjects rated (on a scale from 1 to 7) the extent to which cases had each of a number of diagnoses amongst which APD and HPD were included. A score from 5 to 7 indicated the presence of the diagnosis. A variety of diagnoses on Axes I and II were included in order to minimize subject awareness of the purpose of the study and to allow for consideration of multiple diagnoses, which is consistent with clinical practice.

Following the procedure employed by Waisberg and Page (6), we asked subjects to assess (on a scale from 1 to 7) the perceived difference of the individual from the “average” person, the usefulness of psychotherapy, the usefulness of drug treatment, the degree to which the person should be held personally responsible for his or her behaviour, and the prognostic outlook. Subjects were then asked to rate the seriousness of treatment recommendations from 1 to 5 in ascending order of greater intervention.

SRES. The SRES measures attitudes toward the equality of women and men and contains items that require judgments about both women and men assuming nontraditional roles for their gender. For example, statements such as “Women should have as much right as men to go to a bar alone” and “It is wrong for a man to enter a traditionally female career” are presented. The SRES differs from other measures of gender-role attitudes in that it includes not only judgements of women in traditional and nontraditional role
behaviours but also of men in their role behaviours. There are 4 forms of the SRES, two 95-item alternate long forms (B and K) and two 25-item alternate short forms (BB and KK). We used the BB form for the current study because it can be completed in less than 10 minutes (average 3 to 4 minutes). Within each form there is an equal distribution of items reflecting 5 domains of adult living (marital roles; parental roles; employment roles; social, interpersonal, heterosexual roles; and educational roles). Items are scored on a 5-point Likert scale, ranging from “strongly agree” to “strongly disagree.” A score of 5 represents the most egalitarian position, and a score of 1 represents the least egalitarian position. A score of 125 represents the highest possible score. There are no set “cut-off” scores that would classify an individual as “traditional” or “egalitarian.” Internal consistency reliability estimates have been in the low- to mid-90s. Test–retest coefficients of 0.88 have been reported (18). There is support for the validity of SRES in that it correlates with other measures that attempt to detect individual differences along a traditional/nontraditional sex-role attitudinal dimension, and it is not correlated with scales measuring social desirability (18).

**Results**

All t tests were 2-tailed. A t test revealed that female residents recorded significantly more egalitarian responses on the SRES than male residents (M = 115.91, SD = 10.20 for females and M = 110.30, SD = 12.96 for males; t = -2.33, df = 93, P < 0.03). There was no relationship found between SRES score and age, year of residency training, or number of years since graduation from medical school.

A comparison of group means revealed that, for all cases, the extent to which subjects rated the diagnosis of APD as applicable was significantly lower for female patients (M = 2.42, SD = 1.66) than for male patients (M = 4.17, SD = 1.92; t = 4.65, df = 89, P < 0.0001).

As shown in Table III, significantly more males than females received the diagnosis of APD. As expected for the APD case history, subjects significantly more often failed to diagnose the presence of APD in female than in male patients ($\chi^2 = 15.06$, df = 1, $P < 0.0002$). Although it was predicted that female histrionic patients would more often be given the HPD diagnosis than males, no significant gender differences were found. We performed t tests to assess differences in residents’ assessment of severity of illness, prognosis, and treatment plans for female and male patients. After an adjustment for multiple comparisons (minimum of $P < 0.007$ required), t tests revealed that the only significant finding was for prognostic outlook. Overall, female cases (M = 3.94, SD = 1.09) were seen to have a better prognosis than male cases (M = 4.71, SD = 0.92; t = 3.73, df = 93, P < 0.0001). When we looked at both the APD and HPD case histories separately, the female histrionic case (M = 3.64, SD = 1.18) was perceived to have a better prognosis than the male histrionic case (M = 4.78, SD = 0.95; t = 3.60, df = 43, P < 0.002).

For the previously reported results for the case histories, no significant differences were found when the data were analyzed separately for female and male residents.

Pearson’s correlation coefficients were used to analyze the correlation between residents’ SRES scores and assessment, diagnosis, and treatment patterns. No relationships were found in any of these areas. Analyses of variance (ANOVAs) were conducted in order to test the hypotheses regarding SRES scores and sex-typed clinical behaviour. The SRES scores were divided into thirds, with extreme scorers falling into the upper and lower terciles. There was no significant relationship found between extreme SRES score and endorsement of a diagnosis of APD. There was also no significant relationship between extreme SRES score and perceived seriousness of symptoms when diagnoses violated sex-role stereotypes (that is, for female cases diagnosed with APD).

**Discussion**

This research investigated sex-role attitudes in psychiatry residents and the influence of sex bias in clinical appraisal. The results highlight differential sex-role attitudes between female and male residents and suggest differential diagnosis by patient sex for APD. In this study, the patient’s sex, but not the resident’s sex, influenced the appraisal process. We were unable to demonstrate a relationship between SRES scoring and sex-typed clinical behaviour.

The finding that female residents demonstrate more egalitarian scores on the SRES than males is consistent with previous research using the SRES and other gender-role equality scales (18).

In keeping with previous research (3,4,7), there was a tendency for residents not to diagnose women with APD even when given identical case histories controlling only for gender and meeting diagnostic criteria for APD.

Although we expected that female histrionic patients would more often be given the HPD diagnosis than males, no significant gender differences were found. This finding contrasts with previous studies that have demonstrated higher

**Table III**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Female Cases (n = 45)</th>
<th>Male Cases (n = 46)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>APD</td>
<td>4</td>
<td>23</td>
<td>&lt; 0.00002</td>
</tr>
<tr>
<td>HPD</td>
<td>11</td>
<td>13</td>
<td>ns</td>
</tr>
</tbody>
</table>

$\chi^2 = 19.90$, df = 1. ns = not significant.
There are several possible explanations for our results. First, a common argument against sex bias in diagnosis is that base rates of APD and HPD are different in men and women. Ford and Widiger (3) addressed this issue using the same cases used in the present study, but they concluded that base rates could not explain the sex differences in diagnosis. This conclusion makes the base-rate argument less likely to be informative. Second, since the research upon which this study is based was carried out in the 1970s and 1980s, one can argue that there has been a change in attitudes and beliefs about women's and men's roles and that psychiatric residents today are less sexist than the psychologists who represented the majority of subjects in past studies. This hypothesis, however, would not lead one to expect the significant discrepancy in the diagnosis of APD between female and male patients that was observed in our study. Third, cases used in this study were based on DSM-III criteria for APD and HPD. At the time of administration of the present study, DSM-IV was being introduced, and residents may have been caught between learning DSM-III-R and shifting to DSM-IV. One could argue that the older criteria were no longer valid given the newer version. The first author (CAB) considered this issue, however, and ensured that the details in the case histories could meet both DSM-III-R and DSM-IV criteria for APD and HPD. A fourth potential explanation for our divergent results is that the purpose of the study may have been obvious to the subjects. Although residents were asked to complete the SRES following their completion of the case histories, they may have been primed by having seen the SRES in the questionnaire packages. The items of the SRES are high in face validity, and the investigators in this study are known to the residents as having an interest in women's mental health. Residents may have been cautious in the assignment of the HPD diagnosis to women, since it has traditionally had a negative connotation. It would, however, have been unethical to conceal the identities of the investigators from the residents. Furthermore, recent evidence (19) suggests that women do not have a significantly higher prevalence rate than men for any personality disorders when attempts are made to control for clinician gender bias. Residents' knowledge of these rates may play a role in their diagnostic patterns. Finally, the criteria presented in the case are sufficiently vague that HPD may not be an obvious consideration as a diagnosis.

We found that, overall, both female and male residents saw female patients as having a better prognosis than male patients, particularly for the HPD case. This finding is difficult to explain and warrants further study with respect to mental health expectations for women and men.

In this study, resident sex did not appear to influence diagnosis, assessment, or treatment patterns significantly. This finding is consistent with prior research (1,3,4,7). Unlike previous studies in which male clinicians were overrepresented (3,4), the genders were relatively equally represented in the sample of residents in the present study; our results, therefore, can be considered to be more reliable. The lack of difference by resident sex suggests that female and male residents are biased in their diagnostic practices of assigning more men to the APD label. If this is the case, we may conclude that both female and male residents would benefit from changes in resident education designed to address and eliminate sex bias in future psychiatrists.

This study failed to demonstrate a significant correlation between SRES scores and clinical behavior. We found that the diagnosis of HPD may no longer be related to patient sex. Despite the endorsement of relatively high (that is, egalitarian) scores on the SRES, we replicated previous findings that sex-biased behavior exists for the diagnosis of APD (3,4,7). The results suggest that although there has been some movement toward more egalitarian practice, a bias against men and the diagnosis of APD prevails. There are a number of possible explanations for the lack of relationship between egalitarian attitudes and clinical behavior. First of all, the SRES may not be sensitive enough to identify sexist attitudes in this population. The SRES scores for this group are skewed substantially toward egalitarianism (that is, they are subject to the ceiling effect). This factor makes it difficult to establish significant relationships even if they exist. Assuming that the scale is an accurate measure of egalitarianism, a second possible explanation for the discrepancy between residents' attitudes and clinical practices is that residency education may be teaching a biased diagnostic approach. If this is true, such an influence speaks to the power of the supervisory process and suggests the need to address bias in residency training programs. Further work is warranted to examine supervisory bias in clinical work. Finally, the methodology for the SRES and the case histories is different; the SRES is a self-report measure, whereas the case histories are a test of clinical practice. As mentioned previously, the SRES has high face validity, and one could speculate that social desirability prevalent in that group of residents may have provided what they considered to be the most socially acceptable answers irrespective of their personal beliefs. Although the SRES is not correlated with scales measuring social desirability in the general population (18), it has never been tested in physician samples. It is plausible that psychiatric residents are much more likely than subjects in the general population to consider some of the answers on the SRES to be more or less socially desirable. Even if they were aware of the nature of the study, however, they were unable to eradicate their biases when asked to simulate their clinical behavior.

We are aware that this study was limited to case scenarios which cannot replace the richness of a clinical encounter, but the rating of a written case history rather than a “live” patient is generally considered to be a valid method of testing for sex
bias (1,5). The results should be viewed with caution because only 2 case studies were used. It is possible that the diagnosis of other mental illnesses is influenced in a different fashion depending on the sex of the patient or resident. In conclusion, the described results have implications for psychiatric assessment and treatment. Further understanding of these issues is critical to the development of educational tools to address sex biases in psychiatry.

Clinical Implications

- Patient care may be compromised because of sex bias in diagnosis.
- There is a need to develop educational tools to address sex bias in psychiatry.

Limitations

- Only case scenarios were used.
- Only 2 case studies were used.
- Findings may not generalize to the diagnosis of other mental illnesses.

References