Personality disorders are characterized in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV; American Psychiatric Association [APA], 1994) as a continuing pattern of inner experience and behavior that varies from the expectations of one’s culture, is pervading and inflexible, has an onset on adolescence or early childhood, is rigid over time, and causes distress and or damage. The DSM-IV lists 10 categories of personality disorders: (a) paranoid personality disorder (characterized by a pattern of distrust and suspiciousness); (b) schizoid personality disorder (defined by detachment from social relations and a limited variety of emotional expression); (c) schizotypal personality disorder (defined as having a pattern of severe discomfort in close relationships, cognitive or perceptual misrepresentation, and idiosyncrasy of behavior); (d) antisocial personality disorder (defined as a disregard for, and violation of, the other’s rights); (e) borderline personality disorder (defined by a pattern of unstable interpersonal relationships, self-image, and affects); (f) histrionic personality disorder (characterized by the pattern of extreme emotionality and attention seeking); (g) narcissistic personality disorder (characterized by grandiosity, need for acceptance, and lack of empathy); (h) avoidant personality disorder (defined as a pattern of social constraint, feeling of insufficiency, and excessive sensitivity to negative evaluation); (i) dependent personality disorder (defined by an extreme need to be taken care of); (j) obsessive-compulsive personality disorder (characterized by a preoccupation with orderliness, perfectionism, and control). Two other personality disorders are discussed in the DSM-IV as being provisional in nature: depressive personality disorders (characterized by a pervasive pattern of depressive cognitions and behaviors) and passive-aggressive personality disorder (characterized by negativistic attitudes and passive resistance to demands for adequate performance in social and occupational situations).

In order to assess personality disorders, a variety of techniques have been used, including clinical interviews and self-report questionnaires. Clinical interviewing for personality disorders involves a process of

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initial observation and screening, the identification of symptom clustering, and then a diagnosis-specific inquiry (Fong, 1995). Among the most widely used interview techniques for assessing personality disorders is the Personality Disorder Examination (PDE; Loranger, Susman, Oldham, & Russakoff, 1987). The PDE consists of 126 items designed to provide both dimensional scores and personality diagnoses based on the DSM-III-R criteria. Research by Hunt and Andrew (1992) provided evidence for the reliability of PDE for the diagnosis of personality disorders. Another widely used interview technique for measuring personality disorders is the Structured Clinical Interview (SCID; Spitzer, Williams, Gibbon, & First, 1992), a semi-structured clinical interview designed to assess DSM-III-R personality disorders.

In addition to interview techniques for assessing personality disorders, several objective self-report questionnaires have also been developed to assess the DSM personality disorders. The Millon Clinical Multiaxial Inventory (MCMI; Millon, 1994) was designed to assess the DSM-III personality disorders. The MCMI is a 175-item, true-false self-report inventory that contains 20 clinical scales and one validity scale. In his review of the MCMI, Craig (1999) reported that most of the scales seemed sufficiently reliable over reasonable test-retest intervals with the possible exceptions of the dependent, passive-aggressive, borderline, and paranoid scales.

Another self-report instrument that has been developed to assess personality disorders is the Personality Diagnostic Questionnaire (PDQ; Hyler, Rieder, & Williams, J. B. W., 1983), which contains 163 true-false items that assess the personality disorders described in the original DSM. The Personality Diagnostic Questionnaire-Revised (PDQ-R; Hyler & Rieder, 1987) is an updated version of the PDQ, based on the DSM-III-R criteria for the Axis II personality disorders. Later on, when the DSM-IV was developed, the PDQ-R was further updated and relabeled as the Personality Diagnostic Questionnaire-4+ (PDQ-4+; Hyler, 1994). The PDQ-4+ assesses the 10 DSM-IV personality disorders, plus the additional passive-aggressive and depressive personality disorders that are included in Appendix B of DSM-IV. Johnson, Bornstein, and Sherman (1996) concluded that self-report personality disorder questionnaires like the PDQ-4+ can provide valuable prognostic information in both nonclinical as well as clinical samples.

One of the goals of the present research was to examine the relationship between personality disorders and the gender roles of university students, especially given that the various versions of the DSM indicate that there are sex differences in certain personality disorders (APA, 1987). More specifically, these versions of the DSM indicate that men tend to be diagnosed with antisocial, obsessive-compulsive, and paranoid personality disorders, whereas women tend to be diagnosed as having borderline, dependent, and histrionic personality disorders. Consistent with the DSM criteria, several studies have reported that antisocial personality disorder was more common among men than among women (Dahl, 1986; Golomb, Fava, Abraham, & Rosenbaum, 1995; Kass, Spitzer, & Williams, 1983; Robins et al., 1984). Bodlund, Ekselius, and Lindstrom (1993) have also shown that men tend to be diagnosed with paranoid, schizoid, schizotypal, antisocial and obsessive-compulsive personality disorders, and that borderline and histrionic personality disorders were more often diagnosed among women than men. Similarly, Swartz, Blazer, George, and Winfield (1990) found that women were diagnosed more often with borderline personality disorder than men in a community sample. In addition, Grilo et al. (1996) found that borderline personality disorder was diagnosed more often in women, while narcissistic personality disorder was diagnosed more often in men. Furthermore, Reich (1987) reported that men were more often diagnosed as having paranoid and obsessive-compulsive personality disorders. Recently, Ekselius, Bodlund, von Knorring, Lindstrom, and Kullgren (1996) have reported that women were diagnosed more often with self-defeating personality disorder, while men were diagnosed more often with antisocial personality disorder.

A number of scholars have begun to speculate about the nature of these gender patterns in personality disorders. Gove (1978) reviewed the literature on gender and disorders and has argued that because men occupy a more frustrating and less rewarding position in society than do women, that they would be more likely to experience certain types of disorders. Later, Gove and Tudor (1973) posited an alternate rationale that men may overly express their hostility as compared to women, who tend to direct their hostility inwardly, which in turn leads them to develop certain types of psychological disorders.

The purpose of the present investigation was to examine whether several gender role tendencies would be associated with different personality disorder symptomology. In order to measure several different gender role tendencies, the present research used the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978), the Masculine Behavior Scale (MBS; Snell, 1989), and the Multidimensional Gender Consciousness Questionnaire (MGCQ; Snell & Johnson, 2004). The PAQ was designed to assess two gender role tendencies: self-assertive, instrumental traits (PAQ-I scale) that tend to be associated more often with men than women, and desirable socially...
oriented, expressive traits (PAQ-E scale) that tend to be associated more often with women than men.

The Masculine Behavior Scale (MBS; Snell, 1989) is another instrument designed to assess gender role tendencies. More specifically, the MBS is designed to measure success dedication (defined as being excessively dedicated to the pursuit of success in one’s life), restrictive emotionality (defined as the public restriction of one’s privately felt emotions), inhibited affection (defined as the inhibition of one’s personal feelings of love and tenderness for others), and exaggerated self-reliance (defined as the tendency to be preoccupied with self-reliant and independence control over one’s life). The Multidimensional Gender Consciousness Questionnaire (MGCQ; Snell & Johnson, 2004) was developed as an additional measure of gender role tendencies. In particular, the MGCQ was intended to measure two aspects of gender consciousness: public gender consciousness and private gender consciousness. Public gender consciousness involves the tendency to be aware of people’s reactions to one’s own particular gender-related behavior, whereas private gender consciousness is defined as the tendency to be personally aware of gender-related phenomena about oneself and society.

**Hypotheses**

It was anticipated that higher levels of symptomology associated with both schizoid and schizotypal personality disorder would be associated with more traditional/conventional male gender role tendencies. More specifically, it was predicted that those individuals who score higher on the PDQ-4+ measures of schizoid personality disorder (those with greater schizoid personality disorder symptomatology) and schizotypal personality disorder (those with greater schizotypal personality disorder symptomatology) would be more likely to describe themselves as emotionally restricted and as affectively inhibited, as assessed by the Masculine Behavior Scale (MBS; Snell, 1989). These predictions were based on the rationale that men are more likely than women to develop schizoid personality and schizotypal personality disorder (cf. Bodlund et al., 1993) because of the restrictive emotionality and inhibited affection that characterizes the traditional masculine gender role (Snell, 1989).

**Method**

**Participants**

The participants in the present research sample were drawn from several lower division psychology courses at a small Midwestern university. The sample consisted of 62 participants (34 men; 28 women) who were assessed during the spring of 2005. The participants volunteered to participate in the research projects as one way to partially fulfill requirements in their course. Approximately 77% of the participants were lower-division students, and the remainder were upper division students (n = 12). About 89% of the participants reported that they had never been married, and the others were either currently in their first marriage (n = 4) or else divorced (n = 3). Approximately 89% of the participants reported having no children, and the others had between one child and three children (n = 7). Approximately 99% of the participants reported an income of less than $15,000, and the remainder of the participants reported incomes of more than $15,000 (n = 38). About 87% of the participants were White-Non-Hispanic American (n = 54), and the others were either African-American (n = 6) or Hispanic-American (n = 2). Approximately 66% of the participants reported that they were between 16 to 20 years old (no 16 or 17 year olds actually were actually in the sample), and others were over 21 years old (n = 21).

**Measures**

**Personality Diagnostic Questionnaire-4+.** The Personality Diagnostic Questionnaire-4+ (PDQ-4+; Hylter, 1994) is a self-administered, forced-choice, true-false diagnostic instrument that measures all 12 DSM-IV Axis II personality disorders (Hylter, 1994). In responding to the PDQ-4+, the participants were asked to indicate how much each statement was generally true or generally false for them. A 2-point true and false scale was used to collect data on the participant’s responses, with true responses being scored a 1, and false responses being scored a 0. Hylter, Skodol, Killham, Oldham, and Rosnick (1990) found that the Personality Diagnostic Questionnaire showed adequate test-retest reliability for many of the DSM-III personality disorders, and Trull and Larson (1994) found that the PDQ-R was significantly correlated with scales similar to those of the SCID, thus providing evidence for the validity of the PDQ.

**Personal Attributes Questionnaire.** The Personal Attributes Questionnaire (PAQ; Spence, 1993) was designed to measure the socially desirable aspects of instrumentality and expressiveness. The PAQ instrumentality scale is composed of self-assertive traits that were judged to be more characteristic of men than women; the PAQ expressiveness scale is composed of desirable, socially-oriented expressive traits that were judged to be more characteristic of women than men. In responding to the PAQ, the participants were asked to select a response that best described them. Each PAQ question consisted of two opposing characteristics, with the letters A to E in between them. Spence (1993) found that t tests comparing the means of men
and women on the two PAQ scales indicated that men scored higher on the PAQ-I scale and lower on the PAQ-E scale than women (p < .01). In addition, Spence and Helmreich (1978) reported that reliability for the PAQ subscales were .85 and .82, for PAQ-I and PAQ-E, respectively.

**Masculine Behavior Scale.** The Masculine Behavior Scale (MBS; Snell, 1989) was designed to measure four behavioral tendencies stereotypically imputed more to men versus women: restrictive emotionality (defined as inability to display privately felt emotions in public); inhibited affection (defined as the inhibition of affection and love towards loved ones); success dedication (defined as being excessively dedicated to the pursuit of success); and exaggerated self-reliance (defined as being preoccupied with self-reliance and control of one’s life). In responding to the MBS, the participants were asked to indicate how much they agreed-disagreed with that statement. A 5-point Likert scale was used to collect data on the participant’s responses, with each item being scored from +2 to -2: agree (+2), slightly agree (+1); neither agree nor disagree (0); slightly disagree (-1); and disagree (-2). Subscale scores were computed by summing the responses to the items assigned to each individual subscale. Negative (positive) scores indicated that the participants described themselves as not engaging (as engaging) in the stereotypically masculine behaviors measured by the MBS. Snell (1989) investigated the psychometric properties of the MBS by using reliability analyses and factor analysis. He reported that the internal reliabilities for the MBS subscales ranged from a low of .69 to a high of .89. In addition, he showed that factor analysis predicted the MBS’s four factor structure.

**Multidimensional Gender Consciousness Questionnaire.** The Multidimensional Gender Consciousness Questionnaire (MGCQ; Snell & Johnson, 2004) was designed to measure several aspects of gender consciousness: public gender consciousness and private gender consciousness. Public gender consciousness is the tendency to be aware of other’s reactions to aspects of one’s own particular gender. By contrast, private gender consciousness involves the tendency to be personally aware of gender-related phenomena about oneself and society. Participant responses were measured on a 5-point Likert scale, with items being scored from 0 (Not at all characteristic of me) to 4 (Very characteristic of me). In order to create subscale scores, the items on each subscale were summed. Higher scores thus corresponded to greater public gender consciousness and private gender consciousness, respectively. Reliability scores for the Multidimensional Gender Consciousness Questionnaire were found to be acceptable.

**Procedure**

After the participants arrived at a testing room, they were briefly introduced to the study and were asked to read and sign an informed consent form. They were guaranteed complete anonymity and were assured that their responses would be kept in complete confidentiality. All participants who signed up for the experiment agreed to participate. Then, each participant received a questionnaire booklet containing the various measures (the presentation order was as shown above). After the completion of the measures, the participants received a written debriefing form that explained the purpose of the study. The questionnaire took approximately 50–55 minutes to complete. Small same gender groups of up to 17 participants were tested during each of the seven separate sessions.

**Data Analysis**

A multivariate procedure was used to analyze the data. Specifically, canonical correlation examined the hypotheses associated with the two groups of variables—the personality disorders measures and the gender role measures.

**Results**

The canonical correlation results for the personality disorders measures and the gender role measures are shown in Table 1. This canonical correlational procedure produced only one significant canonical solution. As an inspection of Table 1 shows, the results indicated that those respondents who reported greater paranoid, schizotypal, antisocial, borderline, histrionic, narcissistic, negativistic, and depressive personality disorder symptoms were more likely to describe themselves as having greater inhibited affection, exaggerated self-reliance, and private gender consciousness.

**Discussion**

The present study examined whether the personality disorders listed in the DSM-IV would be associated with people’s gender role tendencies, as assessed by a variety of instruments measuring multidimensional aspects of gender roles. Previous research has demonstrated that specific personality disorders are associated more with men than women. Based on these findings, it was speculated in this study that people with more traditional/conventional masculine gender role tendencies would more likely to report greater schizoid and schizotypal personality disorder symptomology. More specifically, it was predicted that those individuals who score higher on the PDQ-4+ measures of schizoid and schizotypal personality disorder would be more likely to describe themselves as emo-
tionally restricted and affectively inhibited, as measured by the Masculine Behavior Scale (MBS; Snell, 1989). Because the instrument that assessed the personality disorders consisted of 12 separate subscales and because the group of gender role measures consisted of 8 separate subscales, a multivariate statistical procedure (i.e., canonical correlation) was used to examine this hypothesis.

The canonical correlation results provided partial evidence supporting this prediction, in that inhibited affection was found to be associated with a group of personality disorders that included schizotypal personality disorders. In particular, the canonical correlation results showed that a group of personality disorder symptoms—including those associated with not only schizotypal personality disorder, but also with paranoid, antisocial, borderline, histrionic, narcissistic, negativistic, and depressive personality disorder—were directly associated with the following cluster of gender role tendencies: inhibited affection, exaggerated self-reliance, and private gender consciousness. One possible explanation of this overall pattern of findings is that people with a variety of personality disorder symptoms, including the symptoms associated with schizotypal personality disorder, may have problems interacting socially with others. That is, people characterized by such a pattern of diverse personality disorder symptoms may be that way, in part, because they are unable to express their feelings of love and affection for others, to be excessively reliant upon themselves (versus perhaps seeking social support from others), and overly attuned to gender-related phenomena in themselves and society. Such a cluster of personality disorder symptoms seems to be uniquely associated with a pattern of gender role tendencies; wherein people separate themselves from others (via inhibited affection and exaggerated self-reliance) and that leads them to be extremely self-aware of their own gender-related behavior and gender-role issues in society (i.e., they have greater private gender consciousness).

The present results associated with the Masculine Behavior Scale (MBS; Snell, 1989) were congruent with previous research findings. In previous research, Snell (1989) has shown that the masculine gender role—gender roles that are more often attributed to men than to women—is strongly associated with restricted emotionality and inhibited affection. Somewhat similarly, the present research showed that the inhibited affection aspect of the traditional masculine gender role was directly related to several personality disorders that seem to be diagnosed more often among men than women (e.g., schizotypal and antisocial personality disorder). The present findings were also partially consistent with previous research reported by Bodlund et al. (1993), who discovered that male patients were more likely to report the personality pathologies of paranoid, schizoid, schizotypal, antisocial and obsessive-compulsive DSM-IV personality disorders. In the present study, there was evidence that some of these personality disorders were associated with two of the MBS subscales and with one subscale on the MGCQ. This would seem to imply that masculine rather than feminine gender role phenomena may explain in part why people are more often diagnosed with certain personality disorders.

### TABLE 1

<table>
<thead>
<tr>
<th>Measures</th>
<th>Canonical Solution</th>
</tr>
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<tbody>
<tr>
<td>DSM-IV Personality Disorders:</td>
<td></td>
</tr>
<tr>
<td>Paranoid Personality Disorder</td>
<td>.81</td>
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<tr>
<td>Schizoid Personality Disorder</td>
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<tr>
<td>Schizotypal Personality Disorder</td>
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<tr>
<td>Antisocial Personality Disorder</td>
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<tr>
<td>Borderline Personality Disorder</td>
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</tr>
<tr>
<td>Histrionic Personality Disorder</td>
<td>.43</td>
</tr>
<tr>
<td>Narcissistic Personality Disorder</td>
<td>.41</td>
</tr>
<tr>
<td>Avoidant Personality Disorder</td>
<td>.26</td>
</tr>
<tr>
<td>Dependent Personality Disorder</td>
<td>.02</td>
</tr>
<tr>
<td>Obsessive Compulsive Personality Disorder</td>
<td>.19</td>
</tr>
<tr>
<td>Negativistic Personality Disorder</td>
<td>.34</td>
</tr>
<tr>
<td>Depressive Personality Disorder</td>
<td>.43</td>
</tr>
<tr>
<td>Gender Role Measures:</td>
<td></td>
</tr>
<tr>
<td>Success Preoccupation (SP)</td>
<td>.25</td>
</tr>
<tr>
<td>Restrictive Emotionality (RE)</td>
<td>.11</td>
</tr>
<tr>
<td>Inhibited Affection (IA)</td>
<td>.37</td>
</tr>
<tr>
<td>Exaggerated Self-Reliance (ESR)</td>
<td>.48</td>
</tr>
<tr>
<td>Instrumentality Scale (PAQ-I)</td>
<td>-.01</td>
</tr>
<tr>
<td>Expressiveness Scale (PAQ-E)</td>
<td>.27</td>
</tr>
<tr>
<td>Public Gender Consciousness (PuGC)</td>
<td>.27</td>
</tr>
<tr>
<td>Private Gender Consciousness (PrGC)</td>
<td>.67</td>
</tr>
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**Canonical Correlation Statistics:**

<table>
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<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.73</td>
<td>1.65</td>
</tr>
<tr>
<td></td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

Note: N = 62. Canonical loadings greater than |.30| are shown in bold. Higher scores on the PDQ-4+ correspond to greater amounts of the symptoms associated with each of the DSM-IV personality disorders. Higher scores on the gender role measures correspond to greater traditional gender role ideology, instrumentality, and expressiveness.
That is, there would seem to be a personality disorder vulnerability for those individuals characterized by extreme inhibited affection and exaggerated self-reliance. Future research needs to be conducted to confirm these ideas.

Given the results of the present study, it might be important for universities to monitor those students who score at extremely high levels on the MBS (i.e., those with extremely high restrictive emotionality, inhibited affection, and/or exaggerated self-reliance). In this manner, universities might be able to offer some type of supportive treatment to such students so that it would be possible to decrease any likelihood of their developing a personality disorder. Additionally, society itself may need to rethink some of the supposed advantages of traditional masculine gender role behavior. Such behavior may have more unintended personal consequences than anticipated. The tendency to inhibit the public expression of one’s love and affection for others might lead, for example, to social isolation and loss of one’s social network.

The present research includes several limitations, including the sample size, a restricted age range, and a limited type of individuals in the sample. Given the limitations of the present research, future research needs to include a greater number and a broader age range of individuals. In addition, a psychiatric population needs to be assessed to see if such individuals would be characterized by a pattern similar to the present university sample. In summary, the present research represents an initial study of the impact of gender role tendencies on personality disorder symptomology.

References


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