



Relationship between gender, gender-related characteristics, and perceived job stress among university employees  
by Joshua Thomas Boyle

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Applied Psychology  
Montana State University  
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**Abstract:**

Gender, occupational gender-types, and sex-role styles were examined in a questionnaire study to determine the relationship between those factors and perceived job stress. One hundred twenty-eight employees and 800 employees at two separate higher education institutions in the Northwestern United States were sent the Job Stress Survey and the Bern Sex-Role Inventory. A combined sample of 170 employees from the two institutions was examined. The results indicated no evidence to support the hypothesis that females experience greater job stress than males. Contrary to what was expected, there were no significant differences between the job stress severity, job stress frequency, or overall job stress ratings of the androgynous individuals and the individuals with a masculine, feminine, or undifferentiated sex-role style who were combined into one group. This finding lends no support to the behavioral flexibility theory nor to the androgynous sex-role style being more beneficial to an individual than any of the other sex-role styles. Contrary also to what was expected, incongruent females or females with a masculine sex-role style reported their job stress as less severe than the congruent females or the females with a feminine sex-role style. This finding both supports and contradicts the prior literature as females with feminine sex-role styles have both reported lower and higher levels of job stress. The reason the masculine females in the present study reported lower job stress than the feminine females may be because, as Steenbarger and Greenberg (1990) point out, masculine traits may facilitate what they refer to as a “blame outward” style of externalization that protects against stress while feminine traits may facilitate a “blame inward” style of internalization that contributes to stress.

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AND PERCEIVED JOB STRESS AMONG UNIVERSITY EMPLOYEES

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This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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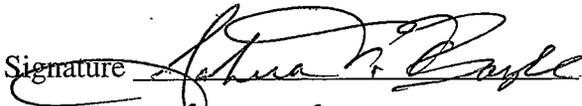
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## ABSTRACT

Gender, occupational gender-types, and sex-role styles were examined in a questionnaire study to determine the relationship between those factors and perceived job stress. One hundred twenty-eight employees and 800 employees at two separate higher education institutions in the Northwestern United States were sent the Job Stress Survey and the Bem Sex-Role Inventory. A combined sample of 170 employees from the two institutions was examined. The results indicated no evidence to support the hypothesis that females experience greater job stress than males. Contrary to what was expected, there were no significant differences between the job stress severity, job stress frequency, or overall job stress ratings of the androgynous individuals and the individuals with a masculine, feminine, or undifferentiated sex-role style who were combined into one group. This finding lends no support to the behavioral flexibility theory nor to the androgynous sex-role style being more beneficial to an individual than any of the other sex-role styles. Contrary also to what was expected, incongruent females or females with a masculine sex-role style reported their job stress as less severe than the congruent females or the females with a feminine sex-role style. This finding both supports and contradicts the prior literature as females with feminine sex-role styles have both reported lower and higher levels of job stress. The reason the masculine females in the present study reported lower job stress than the feminine females may be because, as Steenbarger and Greenberg (1990) point out, masculine traits may facilitate what they refer to as a "blame outward" style of externalization that protects against stress while feminine traits may facilitate a "blame inward" style of internalization that contributes to stress.

## INTRODUCTION

Job stress has become an important issue for employees in today's workplace. In 1991, Northwestern National Life Insurance Company conducted the first phase of a two-year research project examining employee burnout. The first phase of this project surveyed 600 American workers and found that 69% reported that high stress levels reduced their productivity on the job. Forty-six percent reported that they felt that their job was very or extremely stressful and 34% of the employees said they seriously thought about quitting their job due to job stress. Twenty-seven percent reported their job as the single greatest cause of stress in their lives. The study also found that 35% of the new employees left their prior job due to job stress.

The second phase of the research study was conducted in 1992 and surveyed 1,299 full-time private sector employees. Four in 10 private sector employees said that they felt their job was very or extremely stressful. Employees who felt their job was highly stressful were: three times more likely than people in low stress jobs to suffer from high levels of stress-related conditions (55% vs. 18%), twice as likely to think about quitting their job (59% vs. 26%), and more likely to say that stress reduced their productivity (61% vs. 43%). Women reported that they were more likely than men to suffer from high levels of stress-related illness (41% vs. 26%). Fifty-three percent of the supervisors reported that their jobs were highly stressful as compared to 34% of the non-supervisory employees.

A national study of the changing workforce conducted in 1997 by the Families and Work Institute interviewed 2,877 wage and salaried workers and determined that 26% of those workers reported having felt "stressed or burned-out" by work often or very often during the three months prior to the interview. They also determined that one-quarter to more than one-third of employees experienced some form of job-related stress often or very often during the three months prior to the interview. In terms of burnout on the job, women reported slightly higher levels of burnout than men did.

Job stress can affect the productivity of employees and cause them to consider quitting their job as many employees report their job as one of the greatest sources of stress in their life. Job stress can contribute to more stress-related illnesses in women than men and supervisory employees feel that their jobs are highly stressful compared to non-supervisory employees. As well, women experience higher levels of burnout on the job than men do. Therefore, one can conclude that understanding how job stress affects employees might suggest ways to reduce its impact on them, particularly considering that job stress affects males and females differently and individuals in various occupations differently as well. Therefore, focus will be given to reviewing the literature concerning gender and occupational differences in job stress.

Spielberger and Reheiser (1994a) examined job stress in university, corporate, and military personnel using the Job Stress Survey. They determined that corporate employees perceived job stress as more severe than the other employee groups, but that female military personnel in particular reported perceiving more severe job stress than

any other employee group. Corporate males reported that job stress occurred with significantly greater frequency than it did for corporate females. University employees reported higher overall levels of job stress compared to the other employee groups. As well, regardless of occupational classification, males reported that job stress occurred with significantly greater frequency than it did for females. There were no significant differences between the job stress severity and overall job stress ratings of the males and females. Spielberger and Reheiser (1994b) examined job stress among university and corporate employees as well and found that female and male managerial/professional employees experienced job stress on a significantly more frequent basis compared to the female and male clerical/maintenance employees. As well, they found no gender differences in job stress severity, job stress frequency, or overall job stress.

Spielberger, Reheiser, Reheiser, and Vagg (2000) examined job stress among university and corporate employees as well. They found no significant gender differences in either job stress severity, job stress frequency, or overall job stress. The managerial/professional group as a whole reported that job stress occurred more frequently than it did for the clerical/maintenance group as a whole. Job stress is clearly affected by gender and occupation when it comes to either the severity of job stress, the frequency of job stress, or overall job stress. However, this research seems to indicate that the severity and frequency of job stress are more of a concern to specific occupational groups and to specific genders with a certain occupation than overall job stress is.

Research has also shown that individuals' sex-role styles can predict how one responds to stress and the current study was particularly interested in the research that has examined sex-role styles and job stress. However, prior to discussing that literature, a discussion of each of the sex-role styles one can associate with and what each of those sex-role styles represent is in order. Masculinity is often associated with an instrumental orientation and a cognitive focus on getting things done. Femininity, on the other hand, is associated with an expressive orientation and a concern for others. Therefore, a masculine sex-role style represents the endorsement of masculine attributes and the rejection of feminine attributes. Likewise, a feminine sex-role style represents the endorsement of feminine attributes and the rejection of masculine attributes. Androgyny is associated with being both masculine and feminine, both assertive and yielding, and both instrumental and expressive depending on the situational appropriateness of those qualities. An individual with an androgynous sex-role style does not exclude masculinity or femininity from their behavioral repertoire so to speak. Hence, they should be able to remain sensitive to the changing conditions of any situation and engage in the most effective behavior for that situation, regardless of whether or not the stereotype surrounding that behavior is appropriate or not for either a male or a female. In short, an androgynous individual endorses both masculine and feminine attributes. An undifferentiated individual, on the other hand, endorses neither masculine nor feminine attributes (Bem, 1974, 1976). Hence, the undifferentiated sex-role style is not associated with either a cognitive focus on getting things done nor a concern for others. As well, the

undifferentiated sex-role style is not associated with being either assertive or yielding nor instrumental or expressive as masculine and feminine individuals are, respectively.

When those distinctions in mind, focus will now be given to the literature examining job stress and sex-role styles. Rotherman and Weiner (1983) assessed androgyny and stress among university professors at work, home, and in their personal life using the long form of the Bem Sex-Role Inventory among other measures. They found that androgynous professors reported greater work stress than professors with a masculine or feminine sex-role style. Steenbarger and Greenberg (1990) assessed sex-role orientation (measured using the short form of the Bem Sex-Role Inventory), depression, hostility, and vocational stress in female nursing students. They found that the presence of feminine sex-role traits was associated with lower vocational stress levels among female nursing students particularly when the high femininity students were compared to the low femininity (or masculine) students. Androgynous subjects reported less vocational stress than the undifferentiated subjects did and marginally less vocational stress than the masculine subjects.

Eichinger, Heifetz, and Ingraham (1991) examined the relationship between the sex-role styles of female special educators and their job stress ratings using the Bem Sex-Role Inventory (among other measures). They determined that the androgynous female teachers reported significantly lower levels of job stress than the female teachers with the other three sex-role styles. Ushasree, Reddy, and Vinolya (1995) clearly outlined in their study that it was an attempt to assess the effects of sex-role styles, among other factors,

on teachers' experiences of job stress. They found that, irrespective of the age or gender of the participants, masculine and androgynous participants experienced a greater amount of overall job stress than the feminine and undifferentiated participants did. Eichinger (2000) examined the relationship between the sex-role styles of male and female special education teachers and their levels of job stress using the Bem Sex-Role Inventory (among other measures) as well. The androgynous women reported significantly less overall job stress than the undifferentiated women did. There were no significant differences in overall job stress for the males as a function of the four sex-role styles that were measured. As well, females reported more job stress than males. Therefore, with the exception of the studies by Rotherman and Weiner (1983) and Ushasree et al. (1995), androgyny is clearly more beneficial when it comes to job stress, especially for females. As well, according to Steenbarger and Greenberg (1990), feminine traits, such as those exhibited by individuals with the feminine and androgynous sex-role styles, can contribute to better adjustment to vocational stress, as they found to be the case in their study of female nurses.

## STATEMENT OF THE PROBLEM

As Northwestern National Life Insurance Company (1992), the Families and Work Institute (1997), and Eichinger (2000) noted, women suffer more from high levels of job stress-related illnesses than men, experience higher levels of burnout than men, and report more job stress than men, respectively. However, Spielberger and Reheiser (1994a) noted that males experience job stress on a more frequent basis than females. As well, Spielberger and Reheiser (1994b) and Spielberger et al. (2000) found no gender differences in job stress severity, job stress frequency, or overall job stress. Despite these inconsistencies, the present study does believe women will experience more job stress than men will. Therefore, the present study tested the following hypothesis:

**Hypothesis 1: Males will report lower job stress than females.**

The research on sex-role styles and job stress reviewed earlier did little to clarify our understanding of the relationship between sex-role styles and job stress. Steenbarger and Greenberg (1990), Eichinger et al. (1991), and Eichinger (2000) all found that androgynous females with certain occupations or areas of college study often reported lower job stress than individuals with either all or some of the other sex-role styles. As well, Steenbarger and Greenberg (1990) noted that female nursing students with a feminine sex-role style reported lower job stress compared to the female nurses with a masculine sex-role style. This research clearly indicates that no one sex-role style is more important than another to an individual when they deal with stress with the potential

exception of androgyny. However, the more positive relationship between androgyny and job stress is not always the case as noted by Rotherman and Weiner (1983) and Ushasree et al. (1995) as both studies found that androgynous individuals reported high levels of job stress. However, since the Ushasree et al. (1995) study was conducted in India, cultural differences in the perceptions of sex-role styles may account for that particular finding.

Since the presence of an androgynous sex-role style clearly allows an individual to better respond to job stress, one might wonder if there are specific qualities associated with that sex-role style that enable individuals to respond better to job stress. According to the behavioral flexibility theory of Bem (1974, 1975) androgynous people are flexible and can vary their social behavior according to demands of the situation rather than according to sex-role stereotypes. Bem (1975) noted that androgynous individuals are adaptable and this adaptability allows them to remain sensitive to the changing conditions of any situation and engage in the most effective behavior for that situation, regardless of whether that particular behavior is appropriate or not for either a male or a female. What it comes down to in the long run is that androgynous individuals have a greater range of behaviors available to them for each and every situation that they encounter because of the inclusion of both masculine and feminine traits in their personality.

Bem (1975) indeed found support for the behavioral flexibility of androgynous individuals when they were compared to masculine and feminine individuals.

Androgynous individuals of both sexes demonstrated a high level of masculine

independence when pressured to conform and a high level of feminine playfulness when given the opportunity to interact with a kitten. The masculine males displayed masculine independence but not feminine playfulness. The feminine males displayed feminine playfulness but not masculine independence. The masculine females displayed greater independence than the feminine females but only displayed a moderate amount of feminine playfulness when compared to the feminine and androgynous females.

However, Hatzenbuehler and Joe (1981) and Rotherman and Weiner (1983) believe that the behavioral flexibility exhibited by androgynous individuals may not always be beneficial to them. Hatzenbuehler and Joe (1981) hypothesized that androgynous individuals, in particular androgynous males, may experience higher levels of stress than masculine or feminine individuals due to the androgynous individuals' greater flexibility with regard to interpersonal behaviors. They feel that this greater flexibility often results in their engaging in a greater number of behaviors, which may lead them to encounter more stress. Rotherman and Weiner (1983) reasoned that the androgynous individuals in their study may have reported higher job stress because they experienced pressure that resulted from the desire to be more flexible in terms of sex-role behavior, particularly in the work setting. The present author does not believe that to be the case for two reasons. One, being flexible in the workplace, particularly adjusting to the demands of one's job, should reduce the pressure one would encounter in the work setting and likewise reduce the amount of job stress one would experience as well. Two, according to the behavioral flexibility theory, androgynous individuals who are flexible in terms of their behavior are

not bound to sex-role stereotypes in terms of the way they respond to their environments. Androgynous individuals respond based on the demands of the situation. Therefore, Rotherman and Weiner's reasoning that androgynous individuals may report greater work stress because of the desire to be more flexible in terms of sex-role behavior runs counter to the central premise of the behavioral flexibility theory.

Despite the obvious literature-indicated advantage of androgyny for females, the relationship between androgyny and job stress has not been extensively studied among males. Eichinger (2000) was the only study that examined whether androgynous males would report lower job stress than males with the other three sex-role styles. Her study found no significant differences between the job stress of the androgynous males and the males with a masculine, feminine, or undifferentiated sex-role style. Those findings aside, the present author finds it hard to believe that any individual with an androgynous sex-role style, regardless of their gender, would not experience lower job stress because of the behavioral flexibility associated with this particular sex-role style. The present author believes this to be the case because as Bem (1974) noted, androgynous individuals (either male or female) should be able to remain sensitive to the changing conditions of any situation and engage in the most effective behavior for that situation. As Bem (1974, 1975) noted, masculine and feminine individuals are limited in the range of behaviors available to them, which may cause them to inappropriately respond to situations and respond to those situations based on the behaviors that are deemed more appropriate for their particular gender. That is not the case with androgynous individuals as there is no

one behavior that they engage in that is more appropriate for males than females and visa versa. The range of behaviors androgynous individuals can engage in are appropriate for them, regardless of their gender. As well, Eichinger et al. (1991) and Eichinger (2000) believe that the presence of both masculine or feminine traits in an individual or in other words, the presence of an androgynous sex-role style may have more bearing on job stress than biological gender. Therefore, the present study tested the following hypothesis:

**Hypothesis 2: Androgynous individuals will report lower job stress than individuals with the other sex-role styles.**

The above hypothesis is the main and only hypothesis that the present study aimed to examine concerning whether androgyny would allow any individual, regardless of gender, to report lower job stress because of the behavioral flexibility associated with that sex-role style. Therefore, the present study did not formulate independent hypotheses concerning whether males and females with androgynous sex-role styles would report lower job stress than males and females with the other sex-role styles. However, the present study would be remiss to not examine whether there are gender differences in job stress as a result of having an androgynous sex-role style. This is especially true since the prior literature that was reviewed found that androgyny benefits females when it comes to their level of job stress. Therefore, in order to attempt to replicate the findings of the prior literature that was reviewed, the present study aimed to examine whether androgynous females would report lower job stress than the females with the remaining sex-role styles.

The fact that the prior literature either had not examined whether androgynous males would report lower job stress than males with the other sex-role styles or found that androgynous males did not report lower job stress than males with the other sex-role styles is a limitation of the prior literature. Therefore, the present study also aimed to examine whether males with an androgynous sex-role style would report lower job stress than males with the other sex-role styles despite evidence to the contrary. Again, no hypothesis was formulated to test this notion for the reasons mentioned earlier.

Males dominate a number of occupations that are considered masculine in nature and females dominate a number of occupations that are considered feminine in nature. For example, the United States Bureau of Labor Statistics (1998) found that the occupations of secretary and receptionist were dominated by women and those particular occupations are feminine as well as Glick, Wilk, and Perreault (1995) found that individuals rated those particular occupations as feminine in nature. As well, the United States Bureau of Labor Statistics (1998) found that men dominated the occupations of architect, chemist, computer programmer, and carpenter. Those particular occupations are masculine as well as Couch and Sigler (2001) found that individuals rated those particular occupations as masculine occupations. Thus, the present study also aimed to determine whether males with a masculine occupation and females with a feminine occupation (e.g., congruent individuals) would report lower job stress than males with a feminine occupation and females with a masculine occupation (e.g., incongruent individuals). Therefore, the present study aimed to test the following hypothesis:

**Hypothesis 3: Individuals whose gender and occupational gender-type are congruent will report lower job stress than individuals whose gender and occupational gender-type are incongruent.**

One reason why individual sex-role styles may vary in their relationship to job stress and influence why some individuals report either higher or lower job stress based on their particular sex-role style may be due to occupational gender-types, that is, particular occupations being masculine or feminine. Masculine and feminine individuals may report higher job stress when the gender-type of their occupation is incongruent with their individual sex-role style. Conversely, individuals whose occupational gender-type is congruent with their individual sex-role style may report lower job stress. Thus, it seems worth examining this issue further to determine whether a congruency or incongruency between one's sex-role style and occupational gender-type affects stress on the job.

An excellent starting point for examining this issue is a study by Luhaorg and Zivian (1995). That particular study examined whether individuals whose occupation and gender role (i.e., sex-role style) did not match (e.g., feminine individuals in male-dominated occupations and masculine individuals in female-dominated occupations) would experience more gender-role conflict than individuals whose occupation and gender role matched (e.g., masculine individuals in male-dominated occupations and feminine individuals in female-dominated occupations). The results of their study showed that individuals whose occupation and gender-role did not match experienced more gender-role conflict than those individuals whose occupation and gender-role did match.

As well, a study by Cejka and Eagly (1999) indicated that when occupations were female-dominated, feminine personality attributes were thought essential for success. When occupations were male-dominated, masculine personality attributes were thought essential for success as well. Therefore, one would assume that an individual with a masculine sex-role style and masculine occupational gender-type or a feminine sex-role style and feminine occupational gender-type would report lower job stress than an individual with a masculine sex-role style and feminine occupational gender-type or a feminine sex-role style and masculine occupational gender-type. Thus, the present study aimed to examine the following hypothesis:

**Hypothesis 4: Individuals whose occupational gender-type and sex-role style are congruent will report lower job stress than individuals whose occupational gender-type and sex-role style are incongruent.**

Steenbarger and Greenberg (1990) noted that female nursing students with a feminine sex-role style reported lower job stress than female nursing students with a masculine sex-role style. As noted in Eichinger et al. (1991), the androgynous female teachers reported lower stress than the female teachers with the remaining sex-role styles, including the female teachers with a masculine sex-role style and even the female teachers with a feminine sex-role style. This prior literature indicates that it is not always the case that an individual with a gender-appropriate sex-role style will report lower job stress. Even so, based on the work of Bem, one cannot help but think that the presence of a gender-appropriate sex-role would allow one to adapt better to situations that they face.

Bem (1975) noted that feminine males and masculine females differ from masculine males and feminine females in that they are inappropriately, rather than appropriately, sex-typed. Therefore, one would think that feminine males and masculine females would experience more job stress than masculine males and feminine females because association with the opposite sex-role style may contribute to inappropriate responses to situations on the job. Thus, this study aimed to determine if individuals whose gender and sex-role style were congruent (i.e., masculine males and feminine females) would report lower job stress than individuals whose gender and sex-role style were incongruent (i.e., feminine males and masculine females). That led to the following hypothesis that this present study aimed to examine:

**Hypothesis 5: Individuals whose gender and sex-role style are congruent will report lower job stress than individuals whose gender and sex-role style are incongruent.**

Eichinger et al. (1991) and Eichinger (2000) among others indicated that females with certain sex-role styles and occupations reported lower job stress than females with other sex-role styles and occupations. The literature reviewed above found no support for whether this was the case for males with certain sex-role styles and occupations. These particular studies did not examine the interaction between the variables of gender, sex-role style, and occupation but rather whether the androgynous sex-role style would allow male and female teachers to respond better to job stress than the male and female teachers with the remaining three sex-role styles. As Bem (1975) noted, males typically associate

with a masculine sex-role style and females with a feminine sex-role style. As well, Cejka and Eagly (1999) noted that feminine and masculine personality attributes are thought essential for success in female and male-dominated occupations, respectively. Finally, the occupations that the occupational sex-stereotyping literature indicated were masculine and feminine in nature were quite often male and female-dominated as well based on a review of the United States Bureau of Labor Statistics (1998) examination of the gender composition of a wide range of occupations. Thus, it is possible that an interaction between gender, sex-role style, and occupational gender-type could impact job stress, particularly based on the studies by Eichinger and colleagues. However, what one must keep in mind concerning those particular studies is that they did not directly examine occupational gender-type and they did not indicate that the occupation they studied was associated with a particular occupational gender-type.

Luhaorg and Zivian (1995) noted that women with a masculine gender-role (e.g., sex-role style) in male-dominated occupations (e.g., incongruent individuals) experienced more gender-role conflict than men with masculine sex-role styles in male-dominated occupations (e.g., congruent individuals). Therefore, they concluded that the gender-role conflict reported in their study appeared to be related to an interaction between the individuals' gender, gender-role (e.g., sex-role style), and their occupation. Therefore, based on the above findings, particularly those of Eichinger and her colleagues and Luhaorg and Zivian (1995), the present study was interested in whether an individual whose gender, sex-role style, and occupational gender-type are congruent (e.g.,

masculine male in a masculine occupation) would report lower job stress than an individual whose gender, sex-role style, or occupational gender-type are incongruent (e.g., masculine male in a feminine occupation). This led to the final hypothesis that this study aimed to examine:

**Hypothesis 6: Individuals whose gender, sex-role style, and occupational gender-type are congruent will report lower job stress than individuals whose gender, sex-role style, or occupational gender-type are incongruent**

## METHOD

Participants

The participants for this study were selected from a master list of college and university employees obtained through the college or university's institutional research office, personnel office, or mail services office. The occupations that were examined in the present study (e.g., sent surveys) included professors (all ranks), adjunct instructors, instructors, adjunct professors (all ranks), research professors (all ranks), visiting professors, lecturers, administrative employees (assistants, aides, secretaries, staff, support, clerks, officers), program assistants, and receptionists. Other occupations that were examined in the present study included facilities services employees, residence life employees, athletic department employees, communication services employees, information technology employees, student health service employees, departmental researchers and support staff, educational administrators, printing service employees, library employees, museum employees, personnel/payroll employees, and university police officers.

Based on the specific hypotheses this study aimed to examine, particularly those that involved the variable of occupational gender-type, it became clear that the literature on the gender-typing of occupations needed to be examined as the present study needed to determine how occupations are classified as masculine or feminine.

According to Standley and Soule (1974), there are two major criteria one can utilize to distinguish between "feminine" and "masculine" occupations. The first criterion one can use concerns the sex ratio of the occupation, i.e., whether men or women dominate the occupation in terms of sheer numbers. The second criterion one can use concerns the nature of the work role, i.e., whether the activities of the occupation are thought to be compatible with feminine or masculine attitudes, skills, and values. A 1998 study by the United States Bureau of Labor Statistics examined employed individuals in terms of occupation and sex (among other factors) and found a number of occupations to be dominated by either men or women. Therefore, one could continue to rely on the sex ratio of the occupation as a criterion for classifying occupations as masculine or feminine. Standley and Soule's (1974) criterion concerning whether the activities of the occupation are thought to be compatible with feminine or masculine skills, attitudes, and values, still holds today as well. As Cejka and Eagly (1999) found, feminine and masculine attributes are deemed essential for success in female and male-dominated occupations, respectively. Therefore, one can continue to rely on feminine and masculine skills, attitudes, and values as a criterion for classifying occupations as masculine or feminine.

The first phase of this study involved surveys sent to 794 employees of a higher education institution in the Northwestern United States. However, the returned surveys ~~that could be used (N=97) were not analyzed.~~ The inclusion of the subject consent form in the survey packet may have biased the results because the consent form described the true nature of the study in terms of what would be examined. This may also account for

the low return rate in this phase. Thus, a second phase of the present study was conducted.

The second phase involved surveys sent to 128 employees of a second higher education institution in the Northwestern United States. Twenty-seven survey packets were returned. Of those returned, 2 were discarded due to a lack of demographic information. The low return rate in phase two of the present study may have resulted from directly specifying (in the cover letter that accompanied the survey packets) that this was a study of job stress. Individuals may have then chosen to not participate in this study because of the sensitive nature of the issue. Therefore, a third phase of the present study was conducted that involved surveys sent to 800 employees of the same higher education institution in the Northwestern United States examined in phase one. These surveys were sent under the guise that the participants were being asked to participate in a study of the workplace environment. One hundred and sixty-two surveys were returned and 17 were discarded due to a lack of demographic information or incomplete responses. The 145 returned survey packets from phase three were combined with the 25 surveys returned in phase two, which resulted in a total of 170 survey packets that could be used for the purposes of this study. The demographic characteristics of the individuals examined in this study are listed below in Table 1.

Table 1

Demographic Characteristics of the Participants

Characteristic	Males	Females
Gender	77	93
Sex-Role Style		
Masculine	32	15
Feminine	10	37
Androgynous	22	18
Undifferentiated	13	23
Occupational Gender-Type		
Masculine	43	13
Feminine	0	15
Neutral	34	65

Measures

Sex-role styles were measured using the short form of the Bem Sex Role Inventory (BSRI) developed by Bem (1974). According to the work of Campbell, Gillaspy, and Thompson (1997), the short form of the BSRI has yielded comparable or more reliable scores (masculine  $\alpha=.82$ , feminine  $\alpha=.89$ ) than the long form of the BSRI (masculine  $\alpha=.85$ , feminine  $\alpha=.81$ ), particularly on the feminine scale. These findings led those authors to conclude that the scores on the short form of the BSRI have more utility than the scores on the long form making it more suitable for research. Table 2 below lists the reliability levels for the masculine and feminine raw scores obtained in this study.

Table 2

Means, Standard Deviations, Correlations, and Reliability Estimates for the Scores Derived from the BSRI

Measure	<u>M</u>	<u>SD</u>	1	2
BSRI				
1. Masculine Raw Score <sup>1</sup>	4.70	.96	<b>.87</b>	—
2. Feminine Raw Score <sup>2</sup>	5.38	.85	-.15*	<b>.87</b>

Note. N ranged from 168 to 169. Cronbach's alphas appear in bold on the main diagonal.

<sup>1</sup> This score indicates the average of the ratings of the masculine adjectives. <sup>2</sup> This score indicates the average of the ratings of the feminine adjectives. The negative correlation between the masculine and feminine raw scores indicates that those scores measure two separate constructs, in this case, the constructs of masculinity and femininity, respectively.

\* $p < .05$

The short-form of the BSRI asks participants to rate the extent to which they identify with 30 personality characteristics (i.e., assertive, compassionate, truthful, dominant) on a seven-point scale ranging from 1= Never or almost never true to 4= Occasionally true, to 7= Always or almost always true. Ten of those characteristics are masculine in nature, ten are feminine in nature, and the remaining ten are neutral in nature. The distinguishing feature of the BSRI is that it treats femininity and masculinity as two independent dimensions rather than as two ends of a single dimension. This allows individuals to indicate whether they are high on both dimensions, indicating androgyny, low on both dimensions, indicating undifferentiated, or high on one dimension and low on another, indicating either masculinity or femininity (Bem, 1981).

Each participant is classified as feminine, masculine, androgynous, or undifferentiated on the basis of a median split. One can use either the median scores from

the 1978 normative sample or the median scores from a sample gathered for the purposes of new research. For example, based on the 1978 normative sample, one would be classified as androgynous if their Masculinity and Femininity raw scores fell above both medians for the normative sample. One would be classified as undifferentiated if their Masculinity and Femininity raw scores fell below both medians for the normative sample. One would be classified as masculine or feminine if their raw scores fell at or above their respective median for the normative sample and below the median for the opposite classification. The median masculinity score of the participants in the present study was a 4.7 and the median femininity score of the participants in the present study was a 5.6. Considering that these median scores were similar to the 1978 normative sample median masculinity score of 4.8 and the median femininity score of 5.5, this researcher chose to use the median scores of the current sample. The participants were then classified as masculine, feminine, androgynous, or undifferentiated using the median split method described above. The classifications that resulted were noted in Table 1.

Job stress was measured using the Job Stress Survey (JSS) developed by Vagg and Spielberger (1998). Spielberger et al. (2000) evaluated the nature and stability of the factor structure of the JSS and determined that the internal consistency of the Job Stress Index (female clerical/maintenance  $\alpha=.91$ , male clerical/maintenance  $\alpha=.92$ ), Job Stress Severity (female and male clerical/maintenance  $\alpha=.93$ ), and Job Stress Frequency (female clerical/maintenance  $\alpha=.91$ , male clerical/maintenance  $\alpha=.92$ ) scales were quite high for all of the occupational groups they examined, especially when broken down by

gender. The reliability levels for the three job stress scales examined in the current study are listed in Table 3 below.

Table 3

Means, Standard Deviations, Correlations, and Reliability Estimates for the Scales Derived from the JSS

Measure	<u>M</u>	<u>SD</u>	1	2	3
JSS					
1. Job Stress Severity <sup>1</sup>	4.92	1.25	<b>.93</b>	—	—
2. Job Stress Frequency <sup>2</sup>	3.95	1.79	.34*	<b>.90</b>	—
3. Job Stress Index <sup>3</sup>	22.32	12.50	.53*	.76*	<b>.93</b>

Note. N ranged from 143 to 160. Cronbach's alphas appear in bold on the main diagonal. <sup>1</sup>Indicates the average rating of the perceived severity of the 30 stressors. <sup>2</sup>Indicates the average frequency of occurrence of the 30 stressors during the past 6 months. <sup>3</sup>Indicates the average estimate of the overall level of occupational stress.

\*p < .01

The JSS was designed to assess generic sources of occupational stress encountered by men and women employed in a wide variety of jobs. Each of the thirty items on the scale describe generic, job-related stressor events. Part A of the JSS asks the participants to rate the perceived severity of each of the thirty stressor events (i.e., "Difficulty getting along with supervisor", "Poorly motivated coworkers", "Lack of recognition for good work") on a 9-point scale by comparing it to a standard stressor (i.e., "Assignment of disagreeable duties"), which is assigned a value of 5. Each participant's ratings are then computed to yield an Job Stress Severity Rating by summing the ratings for all 30 of the severity scale items and dividing the resulting total by 30.

Part B of the JSS asks the participants to indicate, on a scale from 0 to 9+ (which refers to nine or more days), the number of days in the past 6 months that the stressor occurred. The stressors they are asked to consider in terms of their frequency of occurrence are the same as the stressors listed on Part A of the JSS. Each participant's ratings are then computed to yield an Job Stress Frequency rating by summing the ratings for all 30 of the frequency scale items and dividing the resulting total by 30. Then, the participants' Job Stress Severity ratings for each item on the severity scale and the participants' Job Stress Frequency ratings for each item on the frequency scale are multiplied together. The resulting products are summed and divided by 30, which yields the Job Stress Index rating, or a rating of the overall or total amount of job stress experienced by a worker (ratings can range from 0 to 79.8). These three main ratings constitute the three main scales of the JSS and these particular scales were utilized because they measured the dependent variables of interest to this study.

Clearly, one would wonder whether one could perceive job stress events as severe in nature, but not frequent in nature. When one rates the approximate number of days on which the job stress event occurred during the past six months, they can either indicate that the event did not occur or that the event was personally experienced on a specific number of days. As Spielberger and Vagg (1999) noted, the frequency ratings of several job stress events (e.g., "Inadequate salary") reflect how often the individual was concerned with or thought about the stress event during the past six months. Clearly, one can perceive job stress events as severe in nature based on their personal experience with

that stressor, but those particularly severe events rarely, if at all, may have occurred in the past six months. As well, one can clearly report being frequently concerned with or thinking about job stress events, but yet those job stress events may be events that they have never personally experienced as severe in nature. Therefore, one can indeed perceive job stress as severe and not experience job stress on a frequent basis and one can indeed experience job stress on a frequent basis and not perceive job stress as severe.

In order to classify the occupations examined in the present study, 3 males and 3 females with occupations in human resources, employee and labor relations, and benefits were given a list of the 93 occupations listed on the returned surveys. They were asked to indicate whether they felt each of those occupations was either predominately masculine or feminine in nature. In order to assist these individuals in classifying the occupations, they were told that there are two criteria one can use to classify occupations as masculine or feminine. The first criterion they could use concerned the sex ratio of the occupation, i.e., whether men or women dominated the occupation in terms of sheer numbers.

The second criterion they could use concerned the nature of the work role, i.e., whether the activities of the occupation were thought to be compatible with masculine or feminine attitudes, skills, and values. The participants were told that masculine attitudes have been perceived to include such things as independence, assertiveness, risk-taking, and dominance and feminine attitudes have been perceived to include such things as affection, sympathy, sensitivity, and understanding. As well, they were told that masculine skills have been perceived to include such things as reasoning ability, problem

solving ability, and being analytical and that feminine skills have been perceived to include such things as being perceptive, artistic, and intuitive. Finally, there were told that values associated with a masculine orientation have been perceived to include such things as self-discipline and responsibility and values associated with a feminine orientation have been perceived to include such things as being orderly and getting along with others. These examples of masculine and feminine attitudes, skills, and values were drawn from Standley and Soule (1975) and Cejka and Eagly (1999).

The individuals were then told to rely on either one or both of the above criterion and/or their perceptions of the 93 occupations as they indicated whether they believed each occupation to be either predominately masculine or predominately feminine in nature. If they believed the occupation to be predominately masculine, they placed an M for masculine in the box immediately following the occupation. If they believed the occupation to be predominately feminine, they placed an F for feminine in the box immediately following the occupation. They were instructed to not leave any occupation unmarked even if they were somewhat unsure whether the occupation was predominately masculine or feminine.

All six of the raters classified the following occupations as masculine:  
architect/associate planner, assistant track coach, associate dean, carpenter,  
college/university professor, custodian, dean, director, electrician, estimator/project manager, farm manager, head coach, landscape and grounds, maintenance supervisor, maintenance worker, offset printer supervisor, operations manager, physician,

preparator/construction specialist, printing press operator, project manager, research engineer, research scientist, stationary engineer, strength coach, track and field coach, and unit leader. The classification of college/university professor as masculine is consistent with studies by Couch and Sigler (2001) and Liben, Bigler, and Krogh (2001) in which the individuals in those studies either rated that occupation as masculine or that occupation was identified as masculine prior to those studies. Consistent with studies by Couch and Sigler (2001), Glick, Wilk, and Perreault (1995), and Beggs and Doolittle (1993) in which the individuals in those studies either perceived or rated the occupation of architect as masculine, the individuals in the present study classified the occupation of architect as masculine as well. However, the individual that held the occupation of architect also listed the occupation of associate planner as part of their job title and that particular occupation was not addressed in the occupational sex-stereotyping literature that was reviewed. The classifications of carpenter, electrician, physician, and research scientist as masculine by the individuals in the present study is consistent with prior studies by Couch and Sigler (2001), Glick et al. (1995), and Beggs and Doolittle (1993) in which the individuals in their studies either perceived or rated those occupations as masculine.

Eagly, Karau, and Makhijani (1995) noted the occupation of college head coach as male-dominated. Therefore, based on Standley and Soule's (1974) criteria that an occupation can be considered masculine in nature when men dominate the occupation in terms of sheer numbers, the occupation of college head coach could be considered

masculine in nature. Thus, the fact that the individuals in the present study classified the occupation of head coach (this individual was a college head coach) as masculine is consistent with the prior literature. The individuals in the present study also classified the occupation of farm manger as masculine, which is consistent with Beggs and Doolittle (1993) in which the individuals in their study rated the occupation of farm manager as masculine. The remaining occupations that the individuals in the present study classified as masculine were not addressed in the occupational sex-stereotyping literature that was reviewed. All six of the raters classified the following occupations as feminine: academic secretary, administrative aide, administrative support, cashier, customer service, dental hygienist, nurse practitioner, nutritionist, payroll technician, program specialist, registered nurse, and staff nurse. The classification of the occupation of academic secretary as feminine is consistent with studies by Liben et al. (2001), Levy, Sadovsky, and Troseth (2000), and Glick et al. (1995) in which the occupation of secretary was identified as feminine prior to those studies or the individuals in those studies rated the occupation of secretary as feminine. The individuals in the present study also classified the occupation of cashier as feminine, which is consistent with studies by Beggs and Doolittle (1993) and Glick et al. (1995). According to the United States Bureau of Labor Statistics (1998) and Cejka and Eagly (1999), the occupation of dental hygienist is female-dominated. Therefore, based on Standley and Soule's (1974) criteria that an occupation can be considered feminine in nature when women dominate the occupation in terms of sheer numbers, the occupation of dental hygienist could be considered

feminine in nature. Thus, the fact that the individuals in the present study classified the occupation of dental hygienist as feminine is consistent with the prior literature.

The classification of the occupations of registered nurse, nurse practitioner, and staff nurse as feminine is consistent with studies by Liben et al. (2001), Couch and Sigler (2001), Levy et al. (2000), Glick et al. (1995), and Beggs and Doolittle (1993). Those particular studies either identified the occupations of registered nurse or nurse in general as feminine prior to those studies or the individuals who participated in those studies either perceived or rated those occupations as feminine in nature. The remaining occupations that the individuals in the present study classified as feminine were not addressed in the occupational sex-stereotyping literature that was reviewed. As well, the remaining occupations that all six of the raters did not indicate as either masculine or feminine were classified as neutral.

An intraclass correlation coefficient was used in order to determine the inter-rater reliability of the classifications made by the individuals who received the list of the 93 occupations. The occupational classifications made by the individuals who received the list of occupations were deemed to be random in nature and the measure effect (i.e., the choice of either masculine or feminine as the options for how to code the occupations) was deemed to be fixed in nature. Thus, a two-way mixed effect model was used in order to determine the degree of consistency between the 6 raters across the 93 occupations. The average measure intraclass correlation coefficient indicated that there was a strong degree of agreement between the 6 raters across the 93 occupations,  $r=.92$ . Table 4 below

outlines the masculine, feminine, and neutral occupations as classified by the raters as well as the gender composition of those occupations.

Table 4

## Gender Composition of the Masculine, Feminine, and Neutral Occupations

Occupational Gender-Type	Males	Females
<b>Masculine</b>		
architect/associate planner	0	1
assistant track coach	1	0
associate dean	0	1
carpenter	3	0
college/university professor (regardless of rank)	13	2
custodian	7	2
dean	1	0
director	1	1
electrician	1	0
estimator/project manager	1	0
farm manager	1	0
head coach	1	0
landscape and grounds	2	0
maintenance supervisor	1	0
maintenance worker	1	0
offset printer supervisor	0	1
operations manager	1	0
physician	1	0
preparator/construction specialist	1	0
printing press operator	0	1
project manager	0	1
research engineer	1	1
research scientist	2	0
stationary engineer	1	0
strength coach	1	0
track and field coach	1	0
unit leader	0	1

Table 4 continued

Occupational Gender-Type	Males	Females
<b>Feminine</b>		
academic secretary	0	2
administrative aide	0	1
administrative support	0	3
cashier	0	1
customer service	0	1
dental hygienist	0	1
nurse practitioner	0	1
nutritionist	0	1
payroll technician	0	2
program specialist	0	1
registered nurse	0	1
staff nurse	0	1
<b>Neutral</b>		
accountant	1	2
accounting technician	0	3
adjunct instructor	0	2
administrative assistant	1	3
assistant director	3	0
assistant director/marketing director	0	1
assistant manager	0	1
assistant research professor	1	0
banner coordinator	1	0
benefits/systems technician	0	1
chemist	0	1
clinical laboratory scientist	0	1
computer analyst	1	0
computer operator	1	0
copy service technician	0	1
custodial supervisor	1	0
custodian	7	2
duplicating service worker	0	1
editor	0	1
extension specialist	1	0
food service	0	1
food service general manager	0	1
food service manager	0	1
food service supervisor	1	0
graphic design specialist	0	1

Table 4 continued

Occupational Gender-Type	Males	Females
Neutral		
information systems specialist	0	1
information systems support	1	0
information systems technician	0	1
information technology support analyst	1	0
laboratory aide	1	1
laboratory director	0	1
laboratory specialist	0	2
laboratory supervisor	1	2
laboratory technician	0	1
library technician	0	2
manager	2	1
network administrator	1	0
photographer	0	1
post doctoral research associate	0	1
professional	1	0
program director	0	1
program manager	0	1
project coordinator	0	2
projects director	1	0
registrar	0	1
research assistant	1	2
research associate	9	14
research specialist	1	3
research technician	1	0
sales director	0	1
supervisor	0	2
team leader	0	1
unix systems administrator	1	0
writer	0	1

Note. The occupations listed in this table reflect the job titles listed on the returned surveys and those job titles may reflect the perceptions of the individuals with these occupations.

## RESULTS

The alpha level utilized for each statistical analysis conducted in the present study was adjusted via a Bonferroni correction to .0017 because multiple comparisons were being made and in order to control for Type I error. Therefore, the reader should keep that in mind as the results of each of the statistical analyses conducted are discussed in this section. A series of independent samples t-tests were conducted in order to test the hypothesis that males would report lower job stress than females. The t-test for job stress severity indicated no significant differences between the job stress severity ratings of the males and females,  $t(168) = -1.35$ ,  $p > .0017$ . The t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of the males and females,  $t(168) = .286$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress ratings of the males and females,  $t(168) = -1.26$ ,  $p > .0017$ . Therefore, hypothesis one was not supported.

It was hypothesized that androgynous individuals would report lower job stress than individuals with a masculine, feminine, or undifferentiated sex-role style due to the presumed behavioral flexibility associated with the androgynous sex-role style. Therefore, a series of independent samples t-tests were used to determine if this was indeed the case. The t-test for job stress severity indicated no significant differences between the job stress severity ratings of the androgynous individuals and the individuals with the other sex-role styles,  $t(168) = -1.36$ ,  $p > .0017$ . As well, the t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of

the androgynous individuals and the individuals with the other sex-role styles,  $t(168) = .293$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress ratings of the androgynous individuals and the individuals with the other sex-role styles,  $t(168) = -.156$ ,  $p > .0017$ . Therefore, hypothesis two was not supported.

However, the prior studies that examined sex-role styles and job stress found that androgynous females often reported lower job stress than females with either all or some of the other sex-role styles. Therefore, the androgynous sex-role style clearly benefits females who have that particular sex-role style when it comes to job stress. As mentioned earlier, the present study would be remiss to not examine whether the androgynous females in the present study would report lower job stress than the females with the remaining sex-role styles. Thus, a series of independent samples t-tests were done in order to determine whether the androgynous females would report lower job stress than the females with the remaining sex-role styles. The t-test for job stress severity indicated no significant differences between the job stress severity ratings of the androgynous females and the females with the other sex-role styles,  $t(91) = -.702$ ,  $p > .0017$ . As well, the t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of the androgynous females and the females with the other sex-role styles,  $t(91) = -.789$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress ratings of the androgynous females and the females with the other sex-role styles,  $t(91) = -.622$ ,  $p > .0017$ .

The fact that the prior literature that was reviewed either had not examined whether androgynous males would report lower job stress than males with the other sex-role styles or found that androgynous males did not report lower job stress than males with the other sex-role styles are obvious limitations of that literature. Therefore, the present study aimed to examine whether males with an androgynous sex-role style would report lower job stress than males with the other sex-role styles despite the evidence to the contrary in the literature. Therefore, a series of independent samples t-tests were conducted. The t-test for job stress severity indicated no significant differences between the job stress severity ratings of the androgynous males and the males with the other sex-role styles,  $t(75) = -1.01$ ,  $p > .0017$ . As well, the t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of the androgynous males and the males with the other sex-role styles,  $t(75) = 1.08$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress ratings of the androgynous males and the males with the other sex-role styles,  $t(75) = .544$ ,  $p > .0017$ .

In order to test the hypothesis that individuals whose gender and occupational gender-type are congruent will report lower job stress than individuals whose gender and occupational gender-type are incongruent, a series of independent samples t-tests were conducted for males and females independently. In terms of the males, the t-tests for each job stress dependent variable could not be computed due to the fact that there were no males with a feminine occupational gender-type. The fact that there were no males with a feminine occupational gender-type was due to the fact that, of the occupations classified

as feminine in the present study, no males held those particular occupations. Hence, no comparison could be made between the three job stress ratings of the males with masculine occupational gender-types and the males with feminine occupational gender-types.

In terms of the females, the t-test for job stress severity indicated no significant differences between the job stress severity ratings of the feminine females and the masculine females,  $t(26) = -.541$ ,  $p > .0017$ . As well, the t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of the feminine females and the masculine females,  $t(26) = .334$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress ratings of the feminine females and the masculine females,  $t(26) = -.024$ ,  $p > .0017$ . Therefore, hypothesis three was not supported.

A series of independent samples t-tests were also done to test whether individuals whose occupational gender-type and sex-role style are congruent would report lower job stress than individuals whose occupational gender-type and sex-role style are incongruent. The t-test for job stress severity indicated no significant differences between the job stress severity ratings of the congruent individuals and the incongruent individuals,  $t(42) = -.125$ ,  $p > .0017$ . As well, the t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of the congruent individuals and the incongruent individuals,  $t(42) = 1.14$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress

ratings of the congruent individuals and the incongruent individuals,  $t(42)=1.19$ ,  $p>.0017$ .

Therefore, hypothesis four was not supported.

In order to examine whether individuals whose gender and sex-role style are congruent would report lower job stress than individuals whose gender and sex-role style are incongruent, a series of independent samples t-tests were conducted for males and females independently. In terms of the males, there were no significant differences between the job stress severity ratings of the congruent males and the incongruent males,  $t(40)=.544$ ,  $p>.0017$ . There were no significant differences between the job stress frequency ratings of the congruent males and the incongruent males,  $t(40)=2.49$ ,  $p>.0017$ . Finally, there were no significant differences between the overall job stress ratings of the congruent males and the incongruent males,  $t(40)=.767$ ,  $p>.0017$ .

In terms of the females, there were no significant differences between the job stress frequency ratings of the congruent females and the incongruent females,  $t(50)=-1.77$ ,  $p>.0017$ . There were no significant differences between the overall job stress ratings of the congruent females and the incongruent females,  $t(50)=.242$ ,  $p>.0017$ . However, there was a significant difference between the job stress severity ratings of the congruent females and the incongruent females,  $t(50)=3.34$ ,  $p<.0017$  as the incongruent females or the masculine females reported less severe job stress ( $M=4.24$ ,  $SD=1.47$ ) than the congruent females or the feminine females ( $M=5.47$ ,  $SD=1.09$ ) as displayed in Figure 1 below. Therefore, hypothesis five was not supported.

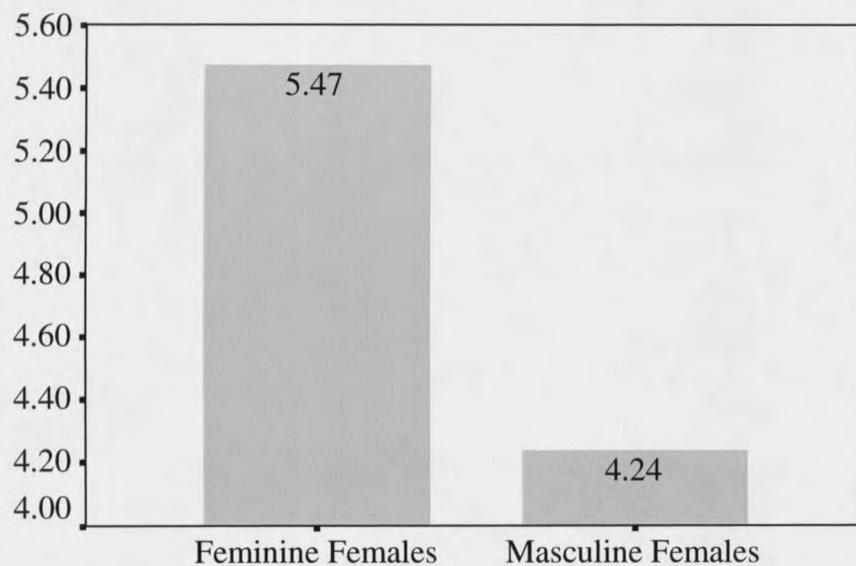


Figure 1 Mean Job Stress Severity Differences for  
Feminine Females and Masculine Females

Finally, in order to test the hypothesis that individuals with a congruent gender, sex-role style, and occupational gender-type would report lower job stress than individuals whose gender, sex-role style, or occupational gender-type were incongruent, a series of independent samples t-tests were conducted for males and females independently. In terms of the males, the t-test for job stress severity indicated no significant differences between the job stress severity ratings of the congruent males and the incongruent males,  $t(22) = -.592, p > .0017$ . As well, the t-test for job stress frequency indicated no significant difference between the job stress frequency ratings of the congruent males and the incongruent males,  $t(22) = 2.13, p > .0017$ . Finally, the t-test for

overall job stress indicated no significant differences between the overall job stress ratings of the congruent males and the incongruent males,  $t(22) = 1.10$ ,  $p > .0017$ . There were no males with a masculine sex-role style and feminine occupational gender-type nor no males with a feminine occupational sex-role style and occupational gender-type represented in the present study as there were no males in the present study with feminine occupational gender types. Thus, those incongruent males could not be examined as part of the t-tests discussed above.

In terms of the females, the t-test for job stress severity indicated no significant differences between the job stress severity ratings of the congruent females and the incongruent females,  $t(18) = .452$ ,  $p > .0017$ . As well, the t-test for job stress frequency indicated no significant differences between the job stress frequency ratings of the congruent females and the incongruent females,  $t(18) = -.571$ ,  $p > .0017$ . Finally, the t-test for overall job stress indicated no significant differences between the overall job stress ratings of the congruent females and the incongruent females,  $t(18) = .470$ ,  $p > .0017$ . Since the above findings concerning the job stress of both the males and females with both congruent or incongruent sex-role styles and occupational gender-types were not significant, hypothesis six was not supported.

## DISCUSSION

The prior literature that was reviewed indicated that females experience more burnout on the job and suffer from more job stress-related illnesses than males. As well, the prior literature indicated no gender differences in job stress severity, job stress frequency, or overall job stress when job stress was measured using the Job Stress Survey. However, the study by Spielberger and Reheiser (1994a) that used the Job Stress Survey seems to be the exception to those findings as they found that males experience job stress more frequently than females. Clearly, there is an inconsistency in the literature when it comes to which gender experiences more job stress than another, especially depending on the nature of their job stress.

The fact that the present results indicated no gender differences across the three job stress measures seems to suggest that job stress is not greater in females than males or visa versa. Contrary to the prior literature that was reviewed, this seems to be the case regardless of whether job stress is assessed in terms of severity, frequency of occurrence, or overall level. However, the present findings are not entirely contrary to the prior literature as they are consistent with Spielberger and Reheiser (1994b) and Spielberger et al. (2000) who found no gender differences in the severity, frequency of occurrence, or overall level of job stress as well. Therefore, one can apparently conclude that job stress affects both males and females, but does not affect one gender more significantly than another. According to Eichinger et al. (1991) and Eichinger (2000), a rationale for the

inconsistencies in the literature when it comes to gender differences in job stress may be that biological differences have little bearing on job stress. That may indeed be the case in the present study. Instead, the above authors believe that the presence of both masculine and feminine traits or an androgynous sex-role style has more bearing on job stress than biological gender. Therefore, focus will now be given to the discussion of the results concerning the androgynous sex-role style and job stress and whether that particular sex-role style did indeed have more bearing on job stress as Eichinger et al. (1991) and Eichinger (2000) believe it will.

The results of the present study indicated that androgynous individuals did not report lower job stress on any of the three measures when compared to the individuals with the remaining sex-role styles. As well, the results of the present study indicated that androgynous females and androgynous males did not report lower job stress than the females with the remaining sex-role styles nor the males with the remaining sex-role styles. The fact that the androgynous females in the present study did not report lower job stress than the females with the other sex-role styles runs contrary to the findings of Steenbarger and Greenberg (1990), Eichinger et al. (1991), and Eichinger (2000). Those prior studies all found that androgynous females often reported lower job stress than females with either all or some of the other sex-role styles. However, the finding of the present study that androgynous males did not report lower job stress than males with the other sex-role style is consistent with Eichinger (2000) who also found that androgynous males did not report lower job stress than the males with the other sex-role styles.

Therefore, these findings, regardless of whether they were examined for gender independently or not, provide no support for the behavioral flexibility theory of Bem (1974, 1975). This theory stated that androgynous people are flexible and can vary their social behavior according to demands of the situation rather than according to sex-role stereotypes. Apparently, neither the androgynous females, the androgynous males, nor the androgynous individuals as a whole were able to vary their social behavior to deal with their job stress more effectively compared to the females and males with the other sex-role styles nor the individuals with the other sex-role styles as a whole. As well, there was no support for the rationale of Eichinger et al. (1991) and Eichinger (2000) that the presence of an androgynous sex-role style has more bearing on job stress than biological gender.

Bem (1975) noted that feminine males are inappropriately sex-typed while masculine males are appropriately sex-typed. Therefore, this author predicted that appropriately sex-typed males would be better able to respond to situations on the job and report lower job stress than inappropriately sex-typed males. The results of the present study indicated no significant differences between the job stress severity, job stress frequency, or overall job stress ratings of the incongruent males or the males with a feminine sex-role style and the congruent males or males with a masculine sex-role style. However, the results of the present study indicated that incongruent females or the females with a masculine sex-role style reported significantly less severe job stress than the congruent females or the females with a feminine sex-role style. This particular

finding both supports and contradicts the findings of the prior literature concerning females, sex-role styles, and job stress. Steenbarger and Greenberg (1990) reported that females with a feminine sex-role style reported significantly lower job stress than females with a masculine sex-role style. As well, Eichinger et al. (1991) noted that masculine females reported significantly more job stress than androgynous females. However, they also noted that feminine females reported significantly more job stress than androgynous females. Clearly, having a sex-role style that is congruent with one's gender is not always of an advantage, especially when it comes to job stress, as the results of the present study indicate.

Luhaorg and Zivian (1995) noted that being male or female does not necessarily predict being masculine or feminine, respectively, as both males and females can associate with masculine and feminine sex-role styles. As well, according to Chusmir and Koberg (1988), it may be the case that changing social values are placing less importance on having a gender appropriate sex-role style. Thus, those authors feel women may be more willing to engage in stereotypically masculine behaviors than they once were. Therefore, it may be the case that the masculine females in the present study have become more accepting of stereotypically masculine behaviors and their acceptance of those behaviors may have allowed them to respond to their situations that contribute to job stress in a different manner. That indeed may be the case because as Steenbarger and Greenberg (1990) point out, masculine traits may facilitate what they refer to as a "blame outward" style of externalization that protects against stress. On the other hand,

Steenbarger and Greenberg (1990) point out that feminine traits may facilitate a "blame inward" style of internalization that contributes to stress. Hence, this is a possible reason the masculine females in the present study reported lower job stress than the feminine females.

This author also predicted that, for example, a masculine individual with a masculine occupational gender-type would respond better to job stress than a masculine individual with a feminine occupational gender-type. However, the results of the present study indicated no significant differences between the three job stress ratings of the individuals with congruent sex-role styles and occupational gender-types and the individuals with the incongruent sex-role styles and occupational gender-types. Therefore, having a sex-role style that is congruent with the gender-type of the occupation is of no assistance to that individual when it comes to their job stress as they do not report lower job stress than those individuals whose sex-role style is incongruent with the gender-type of their occupation. Further research would need to examine this, but it may be the case that the stereotypes associated with masculine and feminine occupations may not correspond to the stereotypes associated with the masculine and feminine sex-role styles. Therefore, it is possible that a masculine or feminine sex-role style may not be as beneficial to one in a masculine or feminine occupation, respectively as one is led to believe based on the findings of Cejka and Eagly (1999) that feminine and masculine personality attributes are thought essential for success in female and male-dominated occupations, respectively.

It was also predicted that males with a masculine occupational gender-type would report lower job stress than males with a feminine occupational gender-type and that females with a feminine occupational gender-type would report lower job stress than females with a masculine occupational gender-type. However, the present study could not appropriately examine whether males with a masculine occupation would report lower job stress than males with a feminine occupation because only females held the feminine occupations in the present study. This may be due to the fact that, as Gatton et al. (1999) suggest, the gender-stereotyping of occupations may discourage individuals from pursuing careers in occupations considered gender-inappropriate, even though they may be well qualified for those careers. Hence, the reason the males in the present study were not represented in the feminine occupations.

However, the present study could indeed examine whether or not females with feminine occupations would report lower job stress than females with masculine occupations. Therefore, based on Gatton et al. (1999), one could question why there were females with masculine occupations in the present study. This may be due to the fact that, as Liben et al. (2001) noted, there are more women entering traditionally masculine fields than there are men entering traditionally feminine fields. Even though there were females with masculine occupations in the present study, the results indicated no significant differences between the three job stress ratings of the females with feminine occupational gender-types and the females with masculine occupational gender-types. The fact that there were no significant differences between these two groups may be because more

females are entering traditionally masculine fields. It may be the case that the females in the present study, even though they still experience job stress, have learned to adjust to the nuances of their masculine occupations and are able to deal with more effectively with the job stress associated with their occupations as a result. Therefore, further research should examine what factors, if any, have allowed females who hold masculine occupations to adjust to the stress associated with those occupations. As well, future research should examine whether the belief that only certain occupations are appropriate for males are beginning to shift towards a belief that occupations once considered only appropriate for males are appropriate for both males and females. As well, the females in the present study with feminine occupations still experience job stress, but more than likely have adjusted to the nuances of their occupations as well and are able to deal with their job stress more effectively as a result. Hence, this may be the reason there were no significant differences between the three job stress ratings of the females with feminine occupational gender-types and the females with masculine occupational gender-types.

The present author hypothesized that individuals with a congruent gender, sex-role style, and occupational gender-type would report lower job stress than individuals with a incongruent gender, sex-role style, or occupational gender-type. The prior literature that was reviewed indicated that female special education teachers with masculine and feminine sex-role styles experienced more job stress than female special education teachers with an androgynous sex-role style did. Therefore, though occupational gender-type was not directly measured as those particular studies did not indicate whether the

occupation of special education teacher was masculine or feminine, a gender by sex-role style by occupation interaction can indeed influence one's level of job stress, particularly for females. However, there was no evidence to suggest that females with congruent sex-role styles and occupational gender-types would report lower job stress than females with incongruent sex-role styles and occupational gender-types as there were no significant differences between the three job stress ratings of those individuals. The congruent females were the females with a feminine sex-role style and occupational gender-type. The incongruent females were the females with a feminine sex-role style and masculine occupational gender-type, the females with a masculine sex-role style and masculine occupational gender-type, and the females with a masculine sex-role style and feminine occupational gender-type. The fact that there were no differences between the job stress ratings of these individuals may be due to the fact that as noted earlier, women are more accepting of traditionally masculine stereotypes and hence masculine sex-role styles. As well, more women are entering traditional masculine fields. Therefore, this acceptance of masculine sex-role styles and entry into masculine occupations may have allowed those females to adjust to the stress that they encounter on the job because they have adjusted to the nuances of their jobs and have the qualities needed to successfully adjust to their job stress.

Males may be of the mindset that men and not women should only occupy certain occupations and that women should only exhibit feminine characteristics. However, that mindset may be changing in both males and females, but males in particular, due to

women's increasing entry into masculine occupations and acceptance of masculine stereotypes. However, further research would need to explore whether such a change in stereotypes has occurred. If this change has indeed occurred, it may be the case that males in particular have become more accepting of women in masculine occupations who exhibit masculine characteristics. Further research should explore this matter, but the stress these women encounter on the job may be lessened if males have come to accept these women and the fact that they can perform the tasks associated with the masculine occupations they hold. This may contribute to greater support of these women by their male counterparts and further reduce their job stress as well. Therefore, future research should also explore whether greater support for female colleagues would indeed reduce the job stress of women with masculine occupations and a masculine sex-role style.

There were no significant differences between the three job stress ratings of the incongruent males or the males with a feminine sex-role style and masculine occupational gender-type and the congruent males or the males with a masculine sex-role style and occupational gender-type. Therefore, the reason why there were no significant differences between the three job stress ratings of the congruent and incongruent males may be due to two things. One, the incongruent males who had a feminine sex-role style and masculine occupational gender-type had the appropriate occupational gender-type for their gender. Chusmir and Koberg (1988) believe that changing social values may be placing less importance on having a gender appropriate sex-role style and males are more willing to engage in stereotypically feminine behaviors than they once were. Therefore,

even though these incongruent males had what is considered a gender-inappropriate sex-role style, it may be the case that they have embraced that sex-role style and it's behaviors and utilized those behaviors effectively in the workplace. Hence, the reason they may have reported no differences in their job stress compared to the males with a masculine sex-role style and occupational gender-type. Two, the fact that the males with a masculine sex-role style and occupational gender-type reported no differences in their job stress compared to the incongruent males may indicate that having a gender-appropriate sex-role style and appropriate occupational gender-type allowed those males to adapt to the stressors associated with their jobs as well.

The findings of the present study and the conclusions that were reached concerning these findings varied greatly from the prior job stress literature that was reviewed. However, these findings did support the prior literature in some regards. Nonetheless, further research needs to examine the matters addressed in the present study further, particularly the suggestions for future research. The knowledge one could contribute to the field concerning sex-role styles and occupational gender-types could shape future research in this area, particularly when it comes to the benefit of sex-role styles on job stress. An obvious limitation of the prior literature that was reviewed concerning sex-role styles and job stress was the fact that it rarely if at all focused on males. Therefore, due to the lack of findings in the present study concerning the males represented in each of the hypotheses, further research needs to examine the matter of job stress among males with each sex-role style and with varying occupations.

## REFERENCES CITED

Beggs, J.M. & Doolittle, D.C. (1993). Perceptions now and then of occupational sex stereotyping: A replication of Shinar's 1975 study. Journal of Applied Social Psychology, 23, 1435-1453.

Bem, S.L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162.

Bem, S.L. (1975). Sex-role adaptability: One consequence of psychological androgyny. Journal of Personality and Social Psychology, 31, 634-643.

Bem, S.L. (1981). Bem Sex-Role Inventory Sampler Set. (Available from Mind Garden, Inc., 1690 Woodside Rd., Suite 202, Redwood City, CA 94061).

Bond, J.T., Galinsky, E., & Swanberg, J.E. (1998). The 1997 national study of the changing workforce. New York, NY: Families and Work Institute.

Campbell, T., Gillaspay, Jr., A., & Thompson, B. (1997). The factor structure of the Bem Sex Role Inventory (BSRI): Confirmatory analysis of long and short forms. Educational and Psychological Measurement, 57, 118-124.

Cejka, M.A. & Eagly, A.H. (1999). Gender-stereotypic images of occupations correspond to the sex segregation of occupations. Personality and Social Psychology Bulletin, 25, 413-423.

Chusmir, L.H. & Koberg, C.S. (1988). Gender identity and sex role conflict among working women and men. The Journal of Psychology, 122, 567-575.

Couch, J.V. & Sigler, J.N. (2001). Gender perception of professional occupations. Psychological Reports, 88, 693-698.

Eagly, A.H., Karau, S.J., & Makhijani, M.G. (1995). Gender and the effectiveness of leaders: A meta-analysis. Psychological Bulletin, 117, 125-145.

Eichinger, J., Heifetz, L.J., & Ingraham, C. (1991). Situational shifts in sex role orientation: Correlates of work satisfaction and burnout among women in special education. Sex Roles, 25, 425-440.

Eichinger, J. (2000). Job stress and satisfaction among special education teachers: Effects of gender and social role orientation. International Journal of Disability, Development, and Education, 47, 397-412.

Gatton, D.S., DuBois, C.L.Z., & Faley, R.H. (1999). The effects of organizational context on occupational gender-stereotyping. Sex Roles, 40, 567-582.

Glick, P., Wilk, K., & Perreault, M. (1995). Images of occupations: Components of gender and status in occupational stereotypes. Sex Roles, 32, 565-582.

Hatzenbuehler, L.C. & Joe, V.C. (1981). Stress and androgyny: A preliminary study. Psychological Reports, 48, 327-332.

Levy, G.D., Sadovsky, A.L., & Troseth, G.L. (2000). Aspects of young children's perceptions of gender-typed occupations. Sex Roles, 42, 993-1006.

Liben, L.S., Bigler, R.S., & Krogh, H.R. (2001). Pink and blue collar jobs: Children's judgements of job status and job aspirations in relation to sex of worker. Journal of Experimental Child Psychology, 79, 346-363.

Luhaorg, H. & Zivian, M.T. (1995). Gender role conflict: The interaction of gender, gender role, and occupation. Sex Roles, 33, 607-620.

Northwestern National Life Insurance Company (1991). *Employee burnout: America's newest epidemic*. Minneapolis, MN.

Northwestern National Life Insurance Company (1992). *Employee burnout: causes and cures*. Minneapolis, MN.

Rotherman, M.J. & Weiner, N. (1983). Androgyny, stress, and satisfaction: Dual-career and traditional relationships. Sex Roles, 9, 151-158.

Spielberger, C.D. & Reheiser, E.C. (1994a). Job stress in university, corporate, and military personnel. International Journal of Stress Management, 1, 19-31.

Spielberger, C.D. & Reheiser, E.C. (1994b). The Job Stress Survey: Measuring gender differences in occupational stress. Journal of Social Behavior and Personality, 9, 199-218.

Spielberger, C.D. & Vagg, P.R. (1999). *Job Stress Survey Professional Manual*. Odessa, FL: Psychological Assessment Resources, Inc.

Spielberger, C.D., Reheiser, E.C., Reheiser, J.E., & Vagg, P.R. (2000). Measuring stress in the workplace: The Job Stress Survey. In D.T. Kenney, J.G. Carlson, F.J. McGuigan, & J.L. Sheppard (Eds.), Stress and health: Research and clinical applications (pp. 397-409). Newark: Gordon and Breach Publishing Group.

Standley, K. & Soule, B. (1974). Women in male-dominated professions: Contrasts in their personal and vocational histories. Journal of Vocational Behavior, 4, 245-258.

Steenbarger, B.N. & Greenberg, R.P. (1990). Sex roles, stress, and distress: A study of person by situation contingency. Sex Roles, 22, 59-68.

United States Bureau of Labor Statistics (1998). *Labor force statistics from the current population survey* (Annual average tables from the January 1998 issue of Employment and Earnings: Table 11) [on-line]. Available from the World Wide Web: <ftp://ftp.bls.gov/pub/special.requests/lf/aat11.txt>

Ushasree, S., Seshu Reddy, B.V. and Vinolya, P. (1995). Gender, gender-role and age effects on teachers' job stress and job satisfaction. Psychological Studies, 40, 72-76.

Vagg, P.R. & Spielberger, C.D. (1998). Occupational stress: Measuring job pressure and organizational support in the workplace. Journal of Occupational Health Psychology, 3, 294-305.

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