Gender differences in leadership style, job stress and mental health in male- and female-dominated industries

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A number of writers have suggested that when men dominate numerically in an industry, women in that industry experience pressure to alter their leadership style, which in turn impacts on their mental health. These assertions, based largely on limited research findings and anecdotal evidence, were tested empirically. Specifically, the study investigated the impact of working in either a male- or female-dominated industry on the leadership style, stress levels and mental health of 60 women and 60 men managers. As hypothesized, women and men in male-dominated industries did not differ in interpersonal orientation, whereas in female-dominated industries women were more interpersonally oriented than men. Consistent with predictions, women did report more pressure from their jobs than men, with women in male-dominated industries reporting the highest level of pressure from discrimination. Although there was no overall difference between women and men's mental health, there was a difference in the pattern of relationships between leadership style and mental health. Women in male-dominated industries reported worse mental health when they utilized an interpersonally oriented leadership style, whereas men in male-dominated industries reported better mental health when they utilized such a leadership style. These findings suggest that both gender and the gender ratio of the industry influence leadership style, stress and mental health, and as such contribute to our understanding of the barriers to women working in senior management roles in male-dominated industries.

Many authors have raised the question as to why women are so under-represented as managers in general, and as senior managers in particular. Despite a gradual increase in the number of women in managerial roles, they are still estimated to fill only 25% of managerial positions in Germany, 28% in Switzerland, 33% in the UK and 43% in Australia (International Labour Organisation, 1997; United Nations, 1998). However, at higher levels women are even more poorly represented, filling only 10% of senior level management positions in the United States (Catalyst, 1996), between 1% and 15% in Australia (Still, 1993), and 5% in Germany (Neumann, 1998). These statistics demonstrate that many senior women managers work in environments which are numerically dominated by men. It has been

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suggested that such environments can impact on both the leadership style and stress levels of women managers. More specifically it has been postulated that the pressure on women to utilize a 'masculine' style of leadership, together with the resulting stress, is a significant mechanism in keeping women out of the upper echelons of corporate management (Bellamy & Ramsay, 1994; Davidson & Cooper, 1992; Kanter, 1977; Powell, 1988).

There are definite gender stereotypes of leadership style. The stereotypically masculine leader emphasizes achievement of organizational goals, whereas the stereotypically feminine leader emphasizes people and relationships (Ashmore, Del Boca & Wohlers, 1986). Until recently, however, many writers contended that the research findings were not sufficiently clear to conclude that women and men do actually engage in different leadership styles (e.g. Bartol & Martin, 1986; Bass, 1981, 1990). An answer was provided by Eagly & Johnson (1990) in a comprehensive meta-analysis which included a large number of organizational, laboratory and assessment studies. They were able to demonstrate in the laboratory and assessment studies that there are some reliable (albeit small-effect size) gender differences in leadership style, whereby women leaders emphasize both interpersonal relations and task accomplishment more than do men. On a different component of leadership style, the tendency to lead democratically or autocratically, they demonstrated that women tended to adopt a more democratic style than men. They concluded, therefore, that there was some demonstrated support for the notion that women lead in a stereotypically feminine manner.

Eagly & Johnson (1990) also reported an interesting incidental finding of a correlation between leadership style and the gender ratios of the organizations, such that women's orientation towards interpersonal relations weakened when men leaders dominated numerically. That is, in organizations with more men, the women's behaviour appeared more like that of the men. Eagly and Johnson postulated that this occurred because women in male-dominated environments may have to adopt more typically male styles in order not to lose authority and position.

Eagly & Johnson's (1990) explanation is consistent with evidence demonstrating managerial stereotyping, whereby inferences about gender-biased characteristics are made for a good manager. Many studies dating from the 1970s (Powell & Butterfield, 1979; Schein, 1973, 1975) through to the 1990s (Powell & Butterfield, 1989; Schein & Davidson, 1993) have found that both male managers and college students believe that successful managers are more like men than like women. The so-called 'masculine' traits are considered to be more related to being a successful manager than 'feminine' traits. Furthermore, men are more likely than women to have negative views of women managers and to assign them with negative female traits (Deal & Stevenson, 1998). Thus, in order for women in male-dominated industries to be seen as successful managers, they may face pressure to adopt a stereotypically masculine leadership style. It might also be that managerial stereo-typing influences the selection of women (either by self or others) into leadership positions, or that a more 'masculine' style is required by the organization. Consistent with the view that masculine traits equate to a successful leader, it may be that women who already possess a so-called masculine leadership style put themselves forward for, or gain, leadership positions.

The present study was designed to explicitly test Eagly & Johnson's (1990) incidental finding that when men dominate numerically, women leaders report a less interpersonally oriented style or, in other words, a style more like men. Most of the studies in their meta-analysis of leadership style contained a high percentage of men (mean = 76%), thereby restricting the range over which comparisons could be made. Furthermore, they had to rely on self-reported or estimated gender ratio data. In contrast, the present study adopted a between-groups design which explicitly selected for gender ratios in the industry and included industries in which both women and men dominated numerically. Also, within both the male-dominated and female-dominated industries, women and men were matched so that results could be more accurately attributed to gender ratios rather than to such factors as seniority or the nature of the position. The importance of studying men and women who perform the same jobs has recently been noted (Rystedt, Johansson & Evans, 1998).

Women working in male-dominated industries have attracted attention less because of the potential effects on leadership style, but more because of other perceived negative consequences. A number of writers have suggested that women leaders experience a unique set of stressors (Bellamy & Ramsay, 1994; Bogg & Cooper, 1998; Davidson & Cooper, 1983, 1984, 1992; Powell, 1988) and that women's mental and physical health may suffer as a result of being in a male-dominated environment (Davidson & Cooper, 1983). For example, Kanter (1977) has argued that the relative numbers within a group in an organization have a large impact on how the members of the group interact and behave. She argued that those in the majority in skewed groups (where the majority outnumbers the minority 85:15) have sufficient control over the group to be labelled 'dominants'. Those in the minority are labelled 'tokens' because they are seen as representatives or symbols of their gender or race etc., rather than as individuals.

There are three postulated consequences for women in the minority which are liable to increase their stress: increased visibility, exaggeration of differences and stereotyping. First, being more visible, or attracting a disproportionate share of attention, means that women in the minority are likely to face greater performance pressures as well as being constantly under 'observation'. As a result women may experience stress from feeling they have to perform better than their male colleagues (Bellamy & Ramsay, 1994; Davidson & Cooper, 1983; Powell, 1988) and from a loss of privacy (Harnett & Novara, 1980). Second, the exaggeration of differences means that women may end up isolated from the main (male) group and therefore lack both formal and informal support, leading to higher levels of stress. Bellamy & Ramsay (1994) reported that 50% of women in their sample of middle and senior managers cited exclusion from male networks as a reason for leaving their organization. Third, sex stereotyping has been documented as having a wide range of negative consequences on women in work settings (Amicus Curiae Brief for the American Psychological Association, 1991; Fiske, Bersoff, Borgida, Deaux & Heilman, 1991). The present study aimed to measure both perceived stressors and more global mental health.

Although, as just outlined, women may experience stress by virtue of being in the minority in a male-dominated environment, the particular leadership style a woman

adopts in such groups may also contribute to stress. Given that successful managers are perceived to possess more masculine traits and fewer feminine traits, presumably if a woman in a masculine environment utilizes a feminine style she risks being seen as less successful or less competent (Amicus Curiae Brief for the American Psychological Association, 1991). Furthermore, utilizing a feminine style may also make her even more visible and exaggerate differences between herself and men even more, thereby leading to increased negative reactions.

On the other hand, there may also be negative reactions to women *not* adhering to stereotypically feminine leadership styles, that is, violating gender stereotypes. In their meta-analysis on gender differences in evaluation, Eagly, Makhijani & Klonsky (1992) found that women leaders were judged less competent, less effective and less able than men leaders when their leadership style was stereotypically masculine. These negative evaluations were strengthened when women leaders were in male-dominated roles. Such negative personal and performance evaluations are likely to impact on women's stress levels. Although there is some evidence to suggest that as women and men spend time working for a woman manager, their negative perceptions of her weaken (Eagly, Ashmore, Makhijani & Longo, 1991), it seems that women in male-dominated industries are likely to experience stress regardless of the leadership style they adopt. As concluded by the American Psychological Association (Amicus Curiae Brief, 1991), 'sex stereotypes place women into a double bind situation'. If they adopt stereotypically masculine styles of leadership that may be required for that particular job, 'they are considered to be abrasive or maladjusted'. However, if women utilize stereotypically feminine styles, they are considered less capable and their performance may not be attributed to competence.

The present study aimed to assess whether working in an environment with disproportionate gender ratios impacts differentially on women compared with men. In particular, the study aimed to tie together findings on leadership style and stress. Based on Eagly & Johnson's (1990) meta-analysis, it was predicted that women would have a more interpersonal and task-oriented leadership style than men, but that the difference in interpersonal style between women and men in male-dominated industries would be smaller than for those in female-dominated industries (that is, women in male-dominated industries would be more stereotypically masculine in their interpersonal style). Furthermore, an interaction between gender and gender ratio in determining stress and mental health was predicted, whereby women in male-dominated industries would report relatively higher job stress and consequently poorer mental health than men and women in female-dominated industries. Finally, the relationship between leadership style, job stress and mental health was investigated, in particular the question as to whether a particular leadership style has negative consequences in terms of job stress or mental health for women in male-dominated industries.

Method

Participants

Participants were 120 managers: 60 (30 women and 30 men) from male-dominated industries and 60 (30 women and 30 men) from female-dominated industries. 'Managers' were defined as people

employed at middle level (or above) of management, as defined by their organization. The male-dominated industries were academia, the automotive industry, information technology, management and accounting consultancies and the timber industry. Female-dominated industries were early childhood education, nursing and hairdressing. It was not possible to match participants from male-dominated industries with those from female-dominated industries, as there are very few female-dominated industries and they tend to differ from male-dominated industries in terms of status and nature of the work. However, within each of the male- and female-dominated industries, women and men were matched according to position. Thus, women and men were comparable in terms of the jobs they performed and the number of people they supervised, thereby increasing confidence that the results are not due to extraneous factors such as seniority, responsibility or the particular industry.

Numerical domination was decided according to Kanter's (1977) definition of a ratio of 15:85 or lower, here applied at both the organizational and management level. Thus, if women in a particular industry constituted less than 15% of both the general and management level workforce, it was deemed to be a male-dominated industry. Similarly, if men constituted less than 15% of both the general and management level workforce of a particular industry it was deemed to be a female-dominated industry. The gender ratios in industries were determined from information supplied by the relevant governing body for that industry or, when there was no such body, by individual firms. As an added check, each participant was asked about the gender ratios in their leadership team and was only included in the study if the relevant gender ratio was 15:85, or less.

Procedure

Participants were recruited through 'cold calling', newspaper articles, referrals from others in the study and from industry bodies. Each participant was first contacted by telephone and asked if they would be interested in participating in a study on leader behaviour and health. They were asked about their managerial level, the gender ratios in their industry and the gender ratios in their leadership team. In order to match women and men participants, they were also asked to nominate someone, preferably (and usually) in their organization, who was of the opposite gender, at a similar managerial level and who performed a similar job. Most participants were able to supply the name of such a person. Of the 135 participants contacted, 126 agreed to be involved in the study and were mailed questionnaires, of which 108 were returned. A second mailing produced a further 12 questionnaires resulting in a high eventual return rate of 120 (89%) from the 135 initially contacted.

Measures

Leadership style. Leadership style was measured by the Leadership Behavior Description Questionnaire (LBDQ; Stogdill, 1963; Stogdill, Goode & Day, 1962), the self-report version of which is reported by Randolph & Blackburn (1989). This scale consists of 30 items and asked respondents to rate (from 4 'always' to 0 'never') how often they engaged in certain leadership behaviours. The two subscales, Consideration and Initiating Structure, yield scores with a maximum of 60 each. Consideration (interpersonal style) refers to a leadership style that emphasizes interpersonal relationships. Initiating Structure (task style) refers to a style that emphasizes the structuring and completion of tasks. Higher scores indicate greater emphasis on interpersonal relationships and structuring tasks, respectively. Internal reliability was high for both interpersonal style (Cronbach's alpha = .85) and task style (alpha = .83).

Job stress. Perceived pressure from work factors was measured using items from the Survey of Work Pressure developed by Davidson & Cooper (1983). This is an 80-item job stress questionnaire that revealed 6 factors for women and 8 for men. Two of these factors (both of which emerged for women and men) were included in the present study because they were judged to be directly relevant. The first factor, 'the organization', consisted of four items, for example, 'lack of power and influence' (Cronbach's alpha = .53). The second factor, 'discrimination', included four items, for example 'feeling I have to perform better at my job than colleagues of the opposite sex' (Cronbach's alpha = .64).

A third factor, which consisted of four items, was added to tap into 'tokenism' (Cronbach's alpha = .48). The first 2 items were from the original 80 items and related directly to being in the minority, namely experiences of visibility and isolation. The third item was also from the original 80 items and related to workload. This was included because of the suggestion that women in the minority report that they 'work twice as hard' as men. The fourth item, 'lack of inclusion in formal or informal work networks', was added to capture the commonly reported experience of those in the minority not being given the opportunity to participate in both social and organizational groupings. Although the internal reliability is low, the scale was retained because it captures the unique experiences argued to affect women managers who operate in male-dominated industries.

Participants were asked to rate how much of a source of pressure at work each statement represented. Pressure was defined as 'a problem, something you find difficult to cope with, about which you feel worried or anxious'. A 5-point response scale ranged from 1 (no pressure at all) to 5 (a great deal of pressure), with a maximum score of 60 for the 12 items. Internal reliability for the 12 items was high (Cronbach's alpha = .84).

Mental ill-health. Psychiatric morbidity was measured by the General Health Questionnaire (GHQ), a self-administered screening test for minor psychiatric disorders developed by Goldberg & Williams (1988). It is widely used as a measure of the presumed effects of stress (Banks, Clegg, Jackson, Kemp, Stafford & Wall, 1980). The present study used the 12-item version of the questionnaire, which has been shown to possess adequate reliability and validity (Goldberg & Williams, 1988). Participants rated how their health had been over the past few weeks by indicating whether they had experienced that particular symptom at all, the same as usual, rather more than usual or much more than usual (scored 0 to 3, respectively). The maximum score was 36, indicating mental ill-health. Internal reliability was high (Cronbach's alpha = .82).

Results

Leadership style

Results were analysed by a 2 (gender) $\times$ 2 (domination) $\times$ 2 (leadership style: interpersonal style and task style) MANOVA with repeated measures on the dependent variable (i.e. leadership style). Table 1 provides means and standard deviations.

As predicted, there was a significant main effect of gender ($F(3, 114) = 8.85$, $p < .01$), with women having both a more interpersonally oriented style than men (M(females) = 48.14 vs. M(males) = 45.29; $F(1, 116) = 4.70$, $p < .05$) and a more task-oriented style than men (M(females) = 43.80 vs. M(males) = 40.46; $F(1, 116) = 7.47$, $p < .01$). There was also a significant domination by leadership style effect ($F(1, 114) = 4.27$, $p < .05$) which was modified by a three-way interaction with gender ($F(4, 114) = 4.10$, $p < .05$), depicted graphically in Fig. 1. It can be seen that, as hypothesized, the difference in interpersonal style for women and men was less in male-dominated industries than female-dominated industries. Planned comparisons confirmed that women were more interpersonally oriented than men in female-dominated industries ($F(1, 58) = 7.39$, $p < .01$), but women and men did not differ in male-dominated industries ($F(1, 58) = 0.45$, $p > .05$). This was not the case for task style where women were more task oriented than men in male-dominated industries ($F(1, 58) = 7.49$, $p < .01$), but in female-dominated industries women and men were equally task-oriented ($F(1, 58) = 1.41$, $p > .05$).

Job stress

Results were analysed by a 2 $\times$ 2 MANOVA with gender and numerical domination of the industry as the independent variables and the three job stress factors

Table 1. Means (SD in parentheses) for women and men in male- and female-dominated industries for leadership style, job stress and mental ill-health (GHQ)

	Male-dominated		Female-dominated	
	Women	Men	Women	Men
Variable	M (SD)	M (SD)	M (SD)	M (SD)
Leadership style ($N = 118$)				
Interpersonal style[a,b]	46.08 (5.85)	45.02 (6.33)	50.20 (5.71)	45.55 (6.07)
Task style[a]	44.23 (6.24)	39.78 (6.36)	43.33 (6.22)	41.14 (7.67)
Job stress[a,b] ($N = 105$)	29.67 (8.26)	23.11 (5.01)	25.51 (6.47)	23.97 (8.46)
Organization[a]	11.45	9.93	10.96	9.63
Discrimination[a,b]	9.57	5.99	6.89	6.74
Tokenism[a]	8.92	6.93	8.44	7.35
GHQ[c] ($N = 120$)	12.28 (5.14)	12.21 (5.00)	10.60 (4.40)	10.28 (4.18)

[a]Significant main effect of gender.
[b]Significant gender × domination interaction.
[c]Significant main effect of domination.

of 'the organization', 'discrimination' and 'tokenism' as the multiple dependent variables. Table 1 provides the means and standard deviations for total job stress and the job stress factors for each of the four groups. Multivariate analyses revealed a significant main effect for gender ($F(3,93) = 3.76$, $p < .05$), with women reporting higher stress than men for all of the organization ($F(3,93) = 5.39$, $p < .05$), discrimination ($F(3,93) = 9.72$, $p < .01$) and tokenism ($F(3,93) = 7.73$, $p < .01$). There was also a significant gender × domination interaction ($F(3,93) = 3.59$, $p < .05$). Univariate analyses showed that for the factor of discrimination, women in male-dominated industries reported higher stress than any of the other groups ($F(1,95) = 8.31$, $p < .01$).

Mental ill-health

Results were analysed with a 2×2 ANOVA with gender and numerical domination of the industry as the independent variables and scores on the GHQ as the dependent variable. Table 1 also provides the means and standard deviations for the GHQ for each of the four groups. There was a significant difference between male- and female-dominated industries ($F(3,114) = 4.38$, $p < .05$), with managers in male-dominated industries ($M = 12.24$) reporting worse psychological health than those in female-dominated industries ($M = 10.43$). However, contrary to prediction,
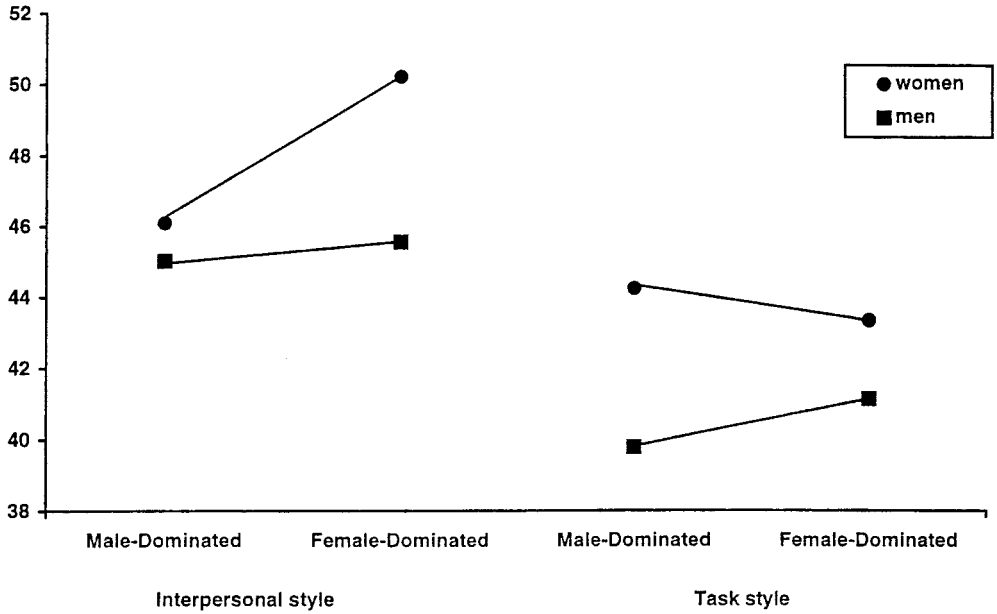
Figure 1. Interpersonal and task style for women and men in male- and female-dominated industries.

there was no significant gender difference ($F(3,114) = .05$, $p > .05$), nor significant interaction between gender and domination ($F(3,114) = .02$, $p > .05$).

Relationship between leadership style with job stress and mental health

Correlational analyses were used to investigate the relationship between leadership style with job stress and mental health. Table 2 reports the correlation coefficients for women and men in male- and female-dominated industries separately. It can be seen that in the male-dominated industries, quite different patterns emerged for women and men. Interpersonal style was positively correlated with GHQ for women ($r = .44$, $p < .05$), but negatively correlated for men ($r = -.39$, $p < .05$), while task style was not correlated with GHQ for women, but was negatively correlated for men ($r = -.37$, $p < .05$). In contrast to the results for those in male-dominated industries, there were no significant correlations between any of the leadership style variables and GHQ for managers in female-dominated industries. Although job stress was correlated with GHQ for the entire sample ($r = .19$, $p < .05$), Table 2 shows that job stress was not significantly related to either of the leadership style variables for male- or female-dominated industries.

In order to more formally test this apparent interaction between gender, domination and leadership style in the prediction of mental ill-health and possibly job stress, two hierarchical multiple regression analyses were conducted. The variables of gender and domination were entered on the first step, followed by leadership style (both interpersonal style and task style) on the second step. The

Table 2. Correlations between leadership style and job stress and mental ill-health (GHQ) for women and men in male- and female-dominated industries

	Women		Men	
	Job stress	GHQ	Job stress	GHQ
		Male-dominated industries		
Int. style	.13	.44*	−.22	−.39*
Task style	.12	.27	.17	−.37*
		Female-dominated industries		
Int. style	−.35	−.03	−.08	−.21
Task style	−.31	−.30	−.13	−.29

$*p < .05.$

Table 3. Summary of hierarchical multiple regressions for job stress and mental ill-health (GHQ)

Predictors	Job stress			Mental ill-health		
	R	R^2	R^2 change	R	R^2	R^2 change
Main effects						
Gender (Gen)						
Domination (Dom)	.29**	.09**	.09**	.19	.03	.03
Interpersonal style (IS)						
Task style (TS)	.31*	.10*	.01	.25	.06	.03
Two-way interactions						
IS × Gen						
TS × Gen						
IS × Dom						
TS × Dom						
Gen × Dom						
IS × TS	.43*	.18*	.08	.37	.14	.08
Three-way interactions						
IS × Gen × Dom	.45*	.21*	.03	.42*	.17*	.04*
TS × Gen × Dom	.46*	.21*	.01	.44*	.19*	.02

$*p < .05; **p < .01.$

two-way product terms were entered on the third step. The terms that were of particular interest, the three-way interpersonal style × gender × domination product term and the task style × gender × domination product term, were entered on the fourth and fifth steps respectively. Table 3 presents the results of these regressions.

Consistent with both the ANOVA and the correlation for job stress, only the gender and domination block offered unique prediction (R^2 change = .09, change
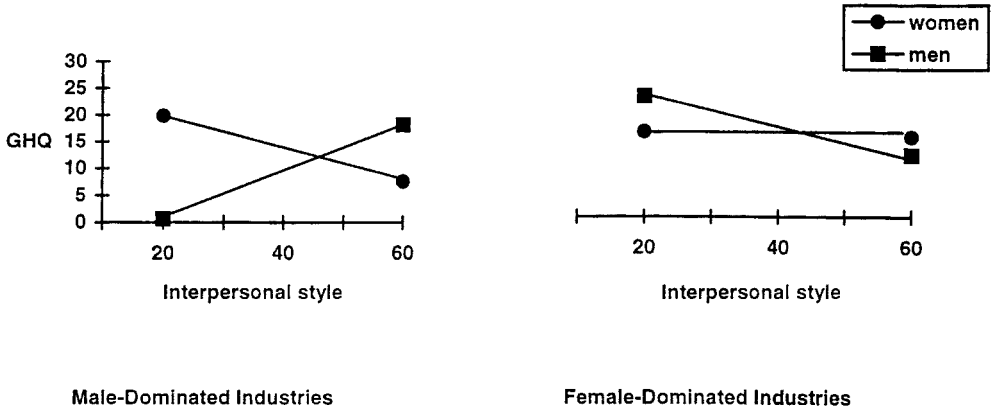
Figure 2. The relationship between interpersonal style and GHQ for women and men in male- and female-dominated industries.

$F = 4.72$, $p < .01$). For GHQ, also consistent with the correlation and consistent with prediction, the interpersonal style $\times$ gender $\times$ domination product term offered unique prediction (R^2 change = .04, change $F = 4.49$, $p < .05$).

Figure 2 describes the significant three-way interaction by plotting the regression lines for interpersonal style and GHQ for women and men in male- and female-dominated industries. It can be seen that women in male-dominated industries reported worse mental health when they utilized an interpersonally oriented leadership style, unlike the men, who reported better mental health when they utilized such a style. No such pattern emerged for the female-dominated industries.

Discussion

The results of this study provide empirical support for the assertion that women in male-dominated industries may face pressures different from those faced by men in the same jobs, or by women and men in more female-dominated environments. Women in male-dominated industries did report a leadership style similar to men in those industries as well as greater pressure from discrimination. Women in general reported greater pressure from factors such as the organization and tokenism compared to men. However, contrary to prediction, women did not report poorer mental health than men. Despite no overall difference in mental ill-health, women in male-dominated industries were found to experience worse health if they utilized a particular leadership style. So in summary, and in answer to the question posed by this research, gender differences in leadership style, stress and mental health may be attributed to both gender and the gender ratios of industries.

As predicted, women in male-dominated industries were equally interpersonally oriented compared to men in those industries, in contrast to managers in female-dominated industries where women were more interpersonally oriented than men. That is, the women in male-dominated industries behaved in a more similar

way to the men in those industries. This directly supports the correlational finding of Eagly & Johnson (1990) that when men dominate numerically within an organization, the tendency for women to lead with an interpersonally oriented style decreases. As the present study is the first to match and directly compare women and men managers in male- and female-dominated industries, it is possible to conclude that there is, for women (and men), a relationship between being in a male-dominated industry and leadership style. The findings of this study are also consistent with Kanter's (1977) work on tokenism. It may be that women in the minority alter their relationship style to reduce their visibility or to lessen perceived differences and stereotyping by the men. Dipboye, Smith & Howell (1994) have pointed out that women become more similar to men with increasing time in management. Alternatively, women in male-dominated industries may have similar leadership styles to men in those industries because they are selected for them. Only some kind of longitudinal research design will be able to disentangle these possibilities.

The reverse pattern emerged for task style. As predicted, women in male-dominated industries were more task oriented than men in those industries, but in female-dominated industries women and men were equally task oriented. This provides partial support for the findings of Eagly & Johnson (1990) that women are more task oriented than men, but only in male-dominated industries, which was the case for most of the studies in Eagly and Johnson's meta-analysis. Again, it could be said that the women in male-dominated industries were displaying a more stereotypically masculine style of leadership.

As predicted, women did report overall higher job stress than men and higher stress on all three factors: the organization, discrimination and tokenism, although it should be noted that the internal reliabilities for two of these factors were quite low. The present study did not explicitly measure additional pressures outside the work context, for example from home and family. Although there is a tendency for women to be more willing to report they are under stress compared to men, the present finding supports the more general claims of a number of researchers that women leaders face work stressors above and beyond those faced by men (Bellamy & Ramsay, 1994; Davidson & Cooper, 1983; Powell, 1988). From the organization factor, it seems that women perceive that they face greater pressure than do the men from office politics, lack of power, being underpromoted and having a lack of control over the work environment. Likewise, as indicated by the significant tokenism result, women reported more pressure than men from being visible, isolated and overworked. Finally, women reported more discrimination than men in feeling they have to perform better at their job and feel that they are treated less favourably and advance more slowly than men. This pattern is consistent with other findings that suggest the work situation (such as development opportunities) is associated with women's career advancement (Tharenou & Conroy, 1994).

In relation to tokenism, it seems surprising that men in female-dominated industries reported lower levels of pressure than women in female-dominated industries, yet, at least in numerical terms, they were in the position of being tokens. However, in her original proposal of what constitutes tokenism, Kanter (1977) argued that those in the majority have sufficient power and influence to be

considered not only numerically dominant, but also dominant in terms of the power they exert. Perhaps when men are in the minority in female-dominated industries they are only in the numerical minority, rather than being (or perceiving themselves) less powerful than the women. Alternatively, as women in male-dominated industries reported similar levels of pressure from tokenism as women in female-dominated industries, it is possible that the items used to measure tokenism, such as increased visibility and isolation, are not measuring experiences exclusive to being a token, but are measuring pressures generally faced by women managers.

The only factor which had a greater impact for women managers in male-dominated industries, compared with women in female-dominated industries, was discrimination. This is in line with the more specific claims of some writers that the stress faced by women in male-dominated industries is greater than that faced by other women, or by men (Davidson & Cooper, 1983, 1984, 1992; Powell, 1988). Discrimination related to experiences such as colleagues of the opposite sex being treated more favourably, or feeling that one's sex is a disadvantage when it comes to career progress. It seems, therefore, that women in male-dominated industries only report higher stress than women in female-dominated industries when they feel that they suffer some tangible loss, such as being treated less favourably. Without such tangible loss, it is possible that high visibility for women in male-dominated industries may sometimes carry some advantages if women do well in their career. In summary, the pattern of findings for job stress seems to indicate that, although women in male-dominated industries experience pressure from the organization and from being visible and isolated, it is the actual pressure caused from the perception of being actively discriminated against that leads them to report higher job stress than women in female-dominated industries.

Despite the gender and numerical domination findings for leadership style and job stress, neither women in general, nor women in male-dominated industries, experienced worse psychological health than men. This is in contrast to our prediction and to the suggestions of other writers (e.g. Davidson & Cooper, 1983; Hennig & Jardim, 1977). However, as this study matched women and men managers (within male- and female-dominated industries) we believe that this finding can be stated with some degree of confidence. Although there were no gender differences in mental health, there were differences between male and female-dominated industries. Leaders in male-dominated industries reported worse psychological health than managers in female-dominated industries. This finding may mean that larger pressures affect women and men in male-dominated industries equally. However, this finding concerning numerical domination of the industry is stated with less confidence than the gender finding, as it was not possible (and perhaps never will be) to match male- and female-dominated industries for variables such as status.

However, gender is clearly not irrelevant to mental health. Regression analyses showed that for women in male-dominated industries, the more interpersonally oriented their leadership style, the poorer their mental health. This is in contrast to men in male-dominated industries who experienced worse mental health if they did not utilize an interpersonally oriented style. This finding offers support to the

theory that women in male-dominated industries experience unique pressures that relate to a particular leadership style. It would appear that when women in male-dominated, but not female-dominated, industries adopt or utilize a leadership style that is considered feminine this has negative consequences for their mental health. Consistent with Kanter's (1977) argument, a woman in the minority who utilizes an interpersonally oriented style may be more likely to be sex stereotyped and therefore considered to be less like a successful leader and as a result perceived as less competent (Schein & Davidson, 1993). These negative reactions of those in the majority may impact on the mental health of women in the minority.

In contrast to the women in male-dominated industries, the men in male-dominated industries reported worse mental health to the extent that they utilized a leadership style low in interpersonal focus. It may be that for men in male-dominated industries being relatively unconcerned about interpersonal relations is an ineffective style of leadership (Fisher & Edwards, 1988, as described in Bass, 1990) which leads to poorer mental health. Communication or interpersonal skills are considered essential for any modern-day leader or manager (Industry Task Force on Leadership and Management Skills, 1995). It is possible that focusing on interpersonal relations increases commitment from workers and reduces problems due to disharmony or lack of teamwork. Men managers may experience poorer mental health to the extent that they do not gain the benefits of cooperation and loyalty from their employees, especially given the estimate that managers spend between 70% and 87% of their time communicating (Luthans & Larsen, 1986).

Considering the results for women and men together explains why there was no overall gender difference in mental health in the male-dominated industries. Both women and men in those industries experience equivalent mental health, but related to different styles of leadership. Obviously, these results need to be replicated, not only in Australia, but in other western and non-western countries. Cross-cultural research would be the best way to determine whether similar pressures face women managers in other cultures. Future research might also attempt to replicate these results studying women and men managers as they operate in the organizational context, rather than through self-report measures. This would allow conclusions about behavioural differences between women and men to be made with a greater degree of certainty (Bryman, Bresnen, Beardsworth & Keil, 1988).

Nevertheless, it would appear relatively easy for men to influence their style of leadership, for example by undertaking training in interpersonal skills (e.g. Tharenou & Lyndon, 1990; Payne & Cangemi, 1997). The situation is much more problematic for women. To suggest that women in male-dominated industries reduce their orientation towards people may be counterproductive, leading to a new set of stressors, as well as being unjust. It would seem more appropriate to provide training for women that helps them deal with the stress that results from utilizing specific leadership styles. Equally important, all managers are likely to benefit from stress management programmes in conjunction with wider programmes that target the prevailing culture in such industries. It is important to address the apparently negative consequences that arise for women working in male-dominated industries when they use an interpersonally oriented leadership style, as a failure to do so may contribute to the paucity of women managers in such positions.

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