This paper presents findings of a study that examined female college students' perceptions of a successful manager in traditional and nontraditional sex-dominated occupations—nursing and management, respectively. The influence of the subjects' own sex-role orientation and self-efficacy were investigated. It was hypothesized that the traditional group of nursing students would have a feminine sex-role orientation, perceive the successful manager in masculine terms, and have low self-efficacy for the supervisory position. Management students were expected to have a more egalitarian sex-role orientation and to perceive the successful manager in more egalitarian terms, and have a higher self-efficacy for the management positions. Data were collected through a questionnaire of 164 female college students from several colleges in San Bernardino and Los Angeles counties (66 from business/management classes and 98 from nursing programs). Instruments included the Schein Descriptive Index, the Bem Sex-Role Inventory, and a general scale of self-efficacy. Findings supported the sex-role orientations hypothesis. Nursing students did have a more feminine sex-role identification. The hypothesis for self-efficacy was also supported, and management students exhibited higher self-efficacy for the management position. However, no differences were found in the way the two groups perceived the successful manager. Two figures and one table are included.
Successful Managers: Perceptions of Women in Traditional and Nontraditional Fields

Valerie S. Perez and Janet L. Kottke
California State University, San Bernardino

ABSTRACT
This study examined female college students' perceptions of a successful manager in traditional and nontraditional sex-dominated occupations, nursing and management respectively. In addition, the influence of the subjects' own sex-role orientation and self-efficacy were investigated. It was hypothesized that the traditional group of nursing students would have a feminine sex-role orientation, perceive the successful manager in masculine terms, and have low self-efficacy for the supervisory position. Management students were expected to have a more egalitarian sex-role orientation and to perceive the successful manager in more egalitarian terms, and have a higher self-efficacy for the management positions. Results gave support for the sex-role orientation hypothesis. Nursing students did have a more feminine sex-role identification. The hypothesis for self-efficacy was also supported, and management students exhibited higher self-efficacy for the management position. However, the last hypothesis of the perception of a successful manager was not supported. Implications and suggestions for further research are discussed.
Successful Managers: Perceptions of Women in Traditional and Nontraditional Fields

For many in today's American society, success is based on occupation, and the prestige with which it is associated. This need for success has had an effect on both men and women as an increasing number of women have entered the work force. More women than every before are committed to seeking success in their occupations (Nieva & Gutek, 1981). Thus, women are striving for equality in the workplace and to be perceived as equally competent in their work pursuits with their male peers.

There are many factors which affect whether or not a woman will be perceived as successful in her job, including the nature of the work she is doing. In particular, managerial or supervisory positions are still commonly defined in masculine terms and may affect perceptions of the job holder differentially if the incumbent is male or female. However, there is apparent change in the definition of a successful manager, a change that may have an effect on how managers who are women are perceived in the future. The purpose of this paper is to examine if this perceived change has had an impact on how a successful manager is viewed by college students and to identify if this perception is dependent on their field of study.

Number of Women in Management

Traditionally, most managerial positions have been filled by men. As the number of working women increases and remains in the workforce, it can be expected that more women will enter into management. In fact, there has been a noted increase of women in management. Hymonitz and Schellhardt (cited in Brenner, Tomkiewicz, and Schein, 1989) found that in 1972 only 19 percent of all management positions were filled by women, whereas today women fill nearly 33 percent of these positions. However, this increase is not indicative of women in the upper ranks of management, as can be seen in Berlin (1988) who found that women fill only 2 percent of the senior management positions in America's largest companies.

Men and Women's Expectations

Women's expectations of themselves and those of a good manager, regardless of gender, could be one reason for the small number of women in management positions. Unfortunately, research results in this area have been inconsistent. One study done by Garland and Smith (1981)
surveyed male and female undergraduate students to assess which group would be more likely to enter sex-appropriate occupations. What they discovered was that the highest achievement motivation was toward the same sex-dominated occupations, but that females did not show significantly lower motivation for masculine occupations. These results are somewhat in conflict with earlier work done by Horner (cited by Garland and Smith, 1981), who found that females would have significantly lower achievement motivation for masculine occupations, which was explained by the expected consequences of entering an opposite sex-dominated occupation.

Directly in conflict with the results found by Garland and Smith (1981), Bridges (1988) found that females' expectations varied according to the sex dominance of the field, but that men were not affected by the sex dominance of the field and their expectations remained relatively consistent. Women were more likely to have lower expectations for success within male-dominated occupations, but had higher expectations for female-dominated fields.

Self-Efficacy

Self-efficacy, defined by Bandura (1986) as the belief that one can successfully carry out a behavior to achieve a desired outcome, can also be another reason why women often do not choose to enter an opposite sex-dominated field. Women may perceive that they might not be successful in a male-dominated field and may choose a traditional field (Bridges, 1988). However, Long (1989) found that women who rated higher on a masculinity scale reported greater self-efficacy, regardless of whether they were in a traditional (i.e., female-dominated) or nontraditional (i.e., male-dominated) training program. Also, women who scored low on the feminine scale in nontraditional occupations had greater self-efficacy than women who scored low on the feminine scale in traditional training programs. In reviewing these results it appears that self-efficacy may be a function of how consistent one's sex-role orientation is with the chosen occupation, as can be seen with higher masculine women in nontraditional fields. Or, this result could be a function of the personality characteristics themselves, as women rating higher in masculinity would have characteristics commonly associated with success, such as leadership and competence.

Perceptions of a Successful Manager

Perceptions of the successful manager have been an area of research interest for some time. These perceptions can have implications in the hiring process, wage increases, and promotions, as
Successful Managers

well as many other related areas for both men and women desiring to become a manager. Some of the earlier work was done in 1973 by Schein who distributed the 92-item Descriptive Index to 300 male middle managers to see which characteristics a male middle manager would expect of a successful manager. Male managers perceived a successful manager to have characteristics more commonly attributed to males than to females. In 1975 Schein again gave the 92 Item Descriptive Index to 167 female managers to see which characteristics they would expect a successful manager to possess. Female managers, as did the male managers, expected the successful manager to possess characteristics more commonly associated with men than women. Her results are consistent with most other research indicating that males are most often classified as having characteristics such as leadership and decision making skills, so they would be expected to be perceived as better managers.

Heilman, Block, Simon, and Martell (1989) replicated Schein's study (1973) with male managers and found results consistent with Schein's (1973) earlier study where the successful manager was still being described in masculine terms. As an extension of Schein's (1973) study they examined if the perceived "successfulness" was a function of the amount of knowledge the subject had about the "successful manager." By labeling the manager as a successful woman manager, they found that the perceived "successfulness" increased greatly, and where defining information was given about the women the traditional stereotypic attitude diminished.

In 1989, Brenner, Tomkiewicz, and Schein distributed the Descriptive Index to 420 male and 173 female managers and discovered that a shift in the perception of the successful manager had apparently begun. Their data indicated that even though the male managers still expected the successful manager to have characteristics most commonly ascribed to men, the female managers were now perceiving the successful managers as having characteristics ascribed to both men and women in general.

College Students' Perceptions of a Successful Manager

A study was done by Schein in 1989 to determine how students perceived the successful manager. The Descriptive Index was distributed to 145 male and 83 female upperclass management students. Similar to the findings of the Brenner et al. study (1989) of managers, males still sex-typed the position but females viewed men and women as possessing
characteristics of the successful manager. Schein's (1989) results are both in agreement and
disagreement with other research. Schein's work disagrees, for example, with a study done by
Powell and Butterfield (1989) on the androgynous manager. Their results indicated that the good
manager was still predominantly described in masculine terms by both male and female students,
although female business graduate students preferred a slightly more androgynous manager,
versus a masculine manager. On the other hand, a study done by Frank (1988) using business
students' perceptions of women in management found that both men and women would prefer a
male boss. Also, male students perceived the female manager as being less competent and
possessing poorer management skills. The female students perceived the female manager to have
greater competency, but focused more on the interpersonal traits, which have traditionally been
associated with women. Again, women are typically rated higher on traits such as warmth and
consideration, and men are rated higher on organization and decision-making skills.

Schein's (1989) study demonstrated a change in students' perceptions of female managers, but
Frank (1988) found very little change and argued there was still a long way for women to go
before managerial equality. One of the reasons for the differing results could be the populations
used. Schein (1989) used management students from a small liberal arts college, whereas Frank
(1988) used business students from two urban public universities, and argued that her sample was
more "street-wise" than the typical undergraduate. Another reason for the differing results could
be related to the age of the subjects. Schein (1989) used a slightly younger population and as
they were just entering the workforce may not have formed expectations about the gender of a
good manager. However, because college students could be tomorrow's managers, their
perceptions may influence how the successful manager will be perceived in the future.

Traditional and Nontraditional Training Programs

To expand further on how college students as a whole perceive the successful manager,
Schein (1989) suggested that the research be replicated using fields of study other than
management, providing an assessment of whether students outside of management still view the
successful manager in masculine terms. Chatterjee and McCarrey (1989) found that women in
more traditional training programs were more likely to view their peers as having more traditional
sex-role attitudes, whereas women in nontraditional training programs had more egalitarian sex-
role attitudes. A traditional program would be one which is considered gender-appropriate by society and typically female-dominated, whereas a nontraditional program would not be sex-role appropriate and male-dominated.

The two training fields selected for this study were nursing and management. We based these two fields on previous research which has identified which occupations are considered masculine and feminine. Garland and Smith (1981) found that managers were rated as masculine and nurses as feminine.

Hypotheses

Based on previous studies, we expected that women in a nontraditional program such as management would be apt to view the successful manager as having characteristics ascribed both to men and women in general and would have a more egalitarian sex-role orientation. Women in nontraditional fields would be expected to have a higher self-efficacy for a position of leadership, since the sex-role orientation would be consistent with the field of study. On the other hand, women in traditional training programs such as nursing are expected to describe the successful manager in masculine terms and have a more feminine sex-role orientation. Also, they could be expected to have a lower self-efficacy for the leadership position, since it would be inconsistent with their sex-role and field of study.

Hypothesis 1: Women in management training will have higher masculine sex-role orientation scores; women in nursing training will have higher feminine sex-role orientation scores.

Hypothesis 2: Nursing students will have lower self-efficacy for management positions than will management students.

Hypothesis 3: Nursing students will perceive the successful manager in masculine terms; management students will view the successful manager as androgynous.

Method

Subjects

The sample consisted of 164 female college students from several colleges (city, junior, and four-year) in San Bernardino and Los Angeles counties. Sixty-six of the participants were recruited from business and management classes and represented the nontraditional group. The other ninety-eight of the participants were from certified registered nursing programs at city and
junior colleges and represented the traditional group.

Measures

The Schein Descriptive Index. This 92-item descriptive index was developed by Schein (1973) and originally consisted of three forms used to measure the perceived characteristics of women in general, men in general, and the successful middle manager. For the purpose of this study, only the form on the perception of a successful manager was used.

The ratings of the descriptive terms are made according to a 5 point scale, ranging from 1 (not characteristic) to 5 (characteristic), with a neutral rating of 3 (neither characteristic nor uncharacteristic), thus the item scores will range from 1 to 5 (Schein, 1989).

Bem Sex-Role Inventory (BSRI). The BSRI developed by Bem (1974) in the full form consists of 60 self-descriptive personality characteristics, 20 representing a masculinity scale, 20 items a femininity scale, and 20 are considered neutral. The subject is then sex-typed on the basis of scoring high on either the masculinity and femininity scale, and androgynous if both the scores are high. The 20 neutral items represent a social desirability scale which is neutral to sex and was developed to insure that the scale was not simply measuring a tendency to endorse socially desirable traits. For this study, the short form of 30 items was used. Ten of the items represented a masculinity scale, 10 represented a femininity scale, and 10 were neutral, and not scored.

The subjects were asked to rate each item on a 1 (never) to 7 (always) scale, indicating the extent to which the item is characteristic of themselves. Thus, the range of potential item scores was on a scale of 1 to 7. On the basis of the responses each subject is typically given a masculinity, femininity, and androgyny score. For this study, the masculine scores were reverse-scored and added to the feminine scale score to attain a bipolar masculine-feminine scale score (see Kottke, 1988; Sines & Russell, 1978).

Self-Efficacy. A general scale of self-efficacy, instead of a situational scale was used since the desire was to test the respondent's perceived ability to supervise or lead, independent of the occupational field. A test of general self-efficacy measures the general level of confidence or ability to succeed (Shelton, 1990). This confidence can be expected to influence the individual's expectations in specific situations.

The scale used consisted of 24 items, 12 of which came from a scale designed to measure
general self-efficacy by Riggs (1989). The other 12 were designed by this researcher specifically for this study. Of the 24 items, 12 were worded to represent high self-efficacy. The scale anchors ranged from 1 (strongly disagree) to 6 (strongly agree), with a high score representing higher self-efficacy.

Analysis

A profile analysis using MANOVA was planned to examine the predicted differences between the two groups of subjects, management and nursing students. Figure 1 illustrates the predicted differences between the two groups on each of the dependent variables, perception of a successful manager, sex-role orientation, and self-efficacy. The management students were expected to score in a more egalitarian direction on both the perception of a successful manager and sex-role inventory and would have higher self-efficacy for the leadership position. On the other hand, the nursing students were expected to have a more masculine perception of a successful manager, yet a more feminine sex-role orientation of themselves, and would have lower self-efficacy for the management position.

Results

Tests of Hypotheses

Overall Hypothesis. SPSS MANOVA was used for a profile analysis on the Self-Efficacy Scale, Schein's Item Descriptive Index, and the Bem Sex-Role Inventory by major, nursing and management. Because the three measures were measured on scales with different metrics, the raw scales were transformed using T scores. Using Wilks' criterion, the profiles seen in Figure 2 deviated significantly from parallelism ($F_{[2,126]} = 6.07$, $p = .003$). Thus, the major hypothesis that there would be differences between the two groups across the three variables was supported. Inspection of the profile (and follow-up F tests done to answer the three hypotheses) indicates that nursing students scored higher on femininity and lower on self-efficacy than the management students.
Hypothesis One. It was theorized that nursing students would report a more feminine sex-role orientation and that the management students would have a more masculine sex-role orientation. Results indicated support for this hypothesis ($F[1,160]=19.22, p<.001, \omega^2=.11$). The Bern Sex-Role Inventory bipolar scale mean raw score was 83.4 (SD = 10.18) for the nursing students and for the management students the mean raw score was 76.0 (SD = 10.15). A higher mean score indicates a higher femininity score.

Hypothesis Two. It was theorized that nursing students would report lower self-efficacy for a management or supervisory position. The management students were expected to have a higher self-efficacy for the management position, since it was expected they would have a more masculine sex-role orientation. Results gave support for this hypothesis ($F[1,153]=5.03, p=.026, \omega^2=.025$). For the nursing students, the mean raw score was 87.0, with a standard deviation of 16.15; for the management students, the mean raw score was 92.5, with a standard deviation of 13.26. The higher score reflects higher self-efficacy.

Because previous research has suggested that additional information can diminish stereotypic responding (Heilman, et al., 1989), an additional ANOVA was performed on the data to see if there were any differences in self-efficacy by major if a student had had any experience working with a woman manager. The overall effect of experience with a woman manager was significant ($F[3,153] = 16.23, p < .001, \omega^2 = .078$); both nursing and management students reported higher self-efficacy for those who had worked with a woman manager in the past. For a complete summary of the means and standard deviations, see Table 1. These results should be considered tenuous, however, because of the small sample of women who had ever worked with a woman manager.

Hypothesis Three. It was hypothesized that there would be a difference between management
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and nursing students in how they would perceive a successful manager. Because nursing students were expected to have a more feminine sex-role orientation and lower self-efficacy for the supervisory position it was expected they would also perceive the successful manager in more masculine terms. It was expected that the management students would have a more egalitarian view of the successful manager (as a corollary to a more masculine sex-role orientation and higher self-efficacy for the management position). Results indicated that there were no significant differences between the groups in their perception of a successful manager ($F[1,35] = .02$, n.s.). The nursing students had a mean raw score of 321.18 (SD = 27.98) and the management students had a mean raw score was 321.32 (SD = 24.92). Therefore, this hypothesis was not supported.

Discussion

The objective of this study was to determine if there were any differences between nursing and management students in their sex-role orientation, self-efficacy, or perception of a successful leader. The results supported the first two hypotheses. There were differences in sex-role orientation and self-efficacy by major.

That women in the traditional nursing group had higher femininity scores on the Bem Sex-Role Inventory is consistent with the idea that women who enter traditional fields usually have a more traditional sex-role attitude. In contrast, women who are in a nontraditional field usually have a more egalitarian sex-role attitude (Chatterjee and McCarrey, 1989). In the past, traditional women have seemed to identify themselves in more feminine terms, and Tipton (1976) found that traditional women often reject masculine characteristics. The socialization of women and the values instilled early may account for this result. If women had no one to model other behaviors, then it could be expected that they will assume the role that was shown to be appropriate by their caregivers.

Another possible reason for the lower self-efficacy exhibited by the traditional group could be due to the hierarchy of advancement in the nursing field. Upon further investigation into nursing careers, it was discovered that management or supervisory positions are not the only way to advance in the field. There are alternatives to the supervisory position that hold the same level of prestige as management might in other areas. These alternatives are teaching and becoming a clinician. Both of these positions require additional training as well as a considerable amount of
experience. These alternatives are important because of the limited number of supervisory positions available within the nursing field. This would account, in part, for the low self-efficacy for the supervisory position, since many nurses may realize there are very few supervisory positions, and some student may have already recognized alternative routes to advancement within the field.

Also, in both groups the females who had a woman manager in the past reported higher self-efficacy for the supervisory position. Thus, the level of self-efficacy may also be a function of the availability of role models, with some subjects having experienced a woman manager whom perhaps they perceived to be successful.

The results indicating women in management had higher self-efficacy for the leadership position are consistent with the previous literature which found that low feminine women in nontraditional occupations had higher self-efficacy (Long, 1989). Typically women in nontraditional fields, such as business, appear to have a strong need to succeed and that success is usually measured by promotions into higher positions. Thus, a higher self-efficacy can be expected of the management students since the nontraditional group of students already expect to go into the supervisory ranks.

No differences were found in the way the two groups perceived the successful manager. This finding is very interesting, since Schein (1989) had suggested in her previous research there might have been differences between students in traditional and nontraditional groups. Schein's (1989) research used male and female management college students, and found that females were perceiving the successful manager in more egalitarian terms, just as were the female managers. She had suggested that research be done outside of the field to see if there were also differences among groups with various majors. This study found no differences between females in the traditional group of nursing and the nontraditional group of business and management students in how they viewed the successful manager.

Oneal & Levi (1991) found that there were no differences between male and female college students in their ratings of desirable managerial characteristics, and that the desired characteristics were considered to be more feminine. Based on Oneal and Levi's findings across a broad range of college students, it is not to be unexpected that the nursing students would rate the successful
manager in the same terms as the management students, because Oneal and Levi did not find that college students from various disciplines rated desirable managerial characteristics as specifically masculine or feminine. The original hypothesis for this study had expected to find differences in the perception of a successful manager, based on the assumption that even though Schein's previous research (1989) had shown that female management students were no longer sex stereotyping the successful manager, these women were probably not representative of females as a whole because they were in a nontraditional field.

This research suggests that the stereotypes of a successful manager may have diminished somewhat, and that a successful manager is being perceived by females, in both traditional and nontraditional fields, in the same manner. This perception appears to be unrelated to their own sex-role orientation. A possible reason for this could be that, as a whole, our society may be undergoing a change in the way men and women are perceived. This change may in part be due to the fact that in recent years more women have entered the workforce and have begun to join the nontraditional field. This has made the fields very diverse and we should expect to see a change in the perception of success and successful leaders. Holusha (1991) stated that more companies are using an interactive leadership style that is often thought of as being more commonly used by women, a clear indication of the change that appears to be occurring.
References


meeting of the Western Psychological Association, San Francisco, CA.


Author Note

This paper is based on the first author's master's thesis, supervised by the second author.
Table 1
Self-Efficacy Means and Standard Deviations for Experience Working with a Female Manager by Major

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Deviation</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Nursing Majors:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Experience with a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Manager</td>
<td>86.5</td>
<td>14.6</td>
<td>80</td>
</tr>
<tr>
<td>No Experience</td>
<td>68.3</td>
<td>23.4</td>
<td>11</td>
</tr>
<tr>
<td>Management Majors:</td>
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<td></td>
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<tr>
<td>Experience with a</td>
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<td></td>
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<tr>
<td>Female Manager</td>
<td>93.1</td>
<td>13.0</td>
<td>52</td>
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<tr>
<td>No Experience</td>
<td>84.3</td>
<td>13.0</td>
<td>12</td>
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</table>
Figure 1
Predicted Profiles

Leadership Efficacy
Perception of Successful Manager
Sex-Role Identity (Feminine)

Nursing Management
Figure 2
Management & Nursing Student Profiles

T-Scale Scores

Efficacy Schein Scales Bem

Management Nursing