

A MULTIPLE CORRELATIONAL STUDY OF SEX-ROLE CATEGORIES
AND ACHIEVEMENT MOTIVATION IN FEMALE
GRADUATE NURSING STUDENTS

A THESIS

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Writers and poets try to understand the truth about woman. But until this day they have never understood her heart because, looking upon her through the veil of desire, they see nothing except the shape of her body. Or they look upon her through a magnifying glass of spite and find nothing in her but weakness and submission.

Kahlil Gibran
The Wisdom of Gibran

DEDICATION

With love to my mother and father who taught me to strive for achievement, and to David, who believes I have the "potentials of a child."

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CHAPTER 1

INTRODUCTION

One of the most critical problems confronting the advancement of the nursing profession today centers around the question of how to motivate the practicing nurse to aspire to positions of higher status, responsibility, and leadership. The current literature focuses on a multitude of attitudinal barriers which may interact to inhibit the nurse from achieving a high level of aspiration to a career.

Nursing has been traditionally considered a female profession. Such external psychological factors as the American stereotyped image of women, attitudes toward female competence, and the prevalence of subordinate roles of nurses to medical doctors have created barriers to nursing's occupational advancement and reinforced female dependency.

Additionally, the internal factors which tend to circumscribe achievement-oriented behaviors include role conflict, low self-esteem, fear of failure, and fear of success. Atkinson's (1964) determinants of achieving tendency, the expected consequences of behavior and the incentive value associated with these consequences, may also

internally inhibit a woman's level of aspiration.

As yet, the relationship of these external and internal factors is theoretically and empirically uncertain. However, two dominant themes merge in the literature, society's sex-role attitude toward women and female achievement-motivation behavior.

Assuming that these factors constitute barriers to achieving tendency in women, and that the current role demands of the nurse involve these factors, an examination of the relationship between sex-role identity and achievement motivation in female nurses appeared relevant.

Problem of Study

The focus of this study was to investigate the relationship between sex-role identity and achievement motivation in female graduate nursing students. The framework for this study examined the factors specific to achievement motivation in women.

Justification of Problem

The current literature asserts that the problems of nurses are the problems of women in general (Ashley, 1976; Cleland, 1971; Rodgers, 1975; Simpson & Green, 1975; Wilson, 1971; Yeaworth, 1976). Nurses are envisioned as submissive, nurturant, passive, intuitive, caring, and self-

sacrificing (Rodgers, 1975; Simpson & Green, 1975; Yeaworth, 1976). It is additionally asserted that nursing, with its high level of congruence with feminine attributes, provides an acceptable occupation for those individuals without deviating from the traditional female role (Bem & Bem, 1970; Davis, 1969; Levitt, Luben, & Zuckerman, 1962; Stromborg, 1976). Ashley (1976) viewed the role of nursing as "the epitome of women's role in American society" (p. 125). Nurses are not given full professional status and are not expected to make a lifelong commitment to a career. The inconsistent manner in which nurses have been educated in hospital schools of nursing rather than in university settings has "stifled initiative by rewarding subservience" (Ashley, 1976, p. 126).

Because of the changing nature of nursing, the educational system will continue to play a vital role in the significant advances of the nursing profession. Nursing is constantly expanding the scope of its practice, thus, graduate programs in nursing are assuming a more critical role. Nurses holding advanced degrees will influence the composition of the nursing profession. The continued revision, expansion, and improvement of nursing is dependent upon the preparation of highly competent individuals who can function in diverse roles (American Nurses' Association, 1978).

Regardless of the educational preparation of the nurse, a lack of career commitment and achieving tendency may be due in part to the numerous women in nursing who follow the traditional feminine standards of behavior. It was relevant to investigate, then, if a relationship between sex-role identity and achieving tendency exists in a sample of female graduate nursing students.

Conceptual Framework

Many internal and external psychological factors influence the achievement motivation of women but the rationale behind these barriers is still unknown. The most dominant theme that emerges from the literature, and which supports the major premise for this thesis, is that the American socialization process which is conducive to feminine sex-role typing is antagonistic to achievement motivation in women. A general and collective conceptualization of role theory and expectancy-value theory of motivation is provided as a framework to explain and synthesize the relationship of the internal and external factors with achievement motivation.

A large part of behavior may be understood by the definitive concepts, role behavior, role expectations, role playing, and status inherent in role theory. The general concept, role, may be considered as:

a position in a social structure, a set of expectations associated with a position in a social structure, or a set of behaviors associated with a position. (Hardy & Conway, 1978, p. 11)

Roles are either assigned or achieved. The sexual role, for example, is a socially assigned mode of behavior. The culture prescribes and sanctions a variety of other role behaviors based on such conditions as age, status, social class, ethnic group membership, religion, social relationships, appearance, and wealth. Achieved roles, on the other hand, are roles one aspires to or earns on the basis of educational or occupational background. Achieved roles are superimposed upon assigned roles. The role of the nurse is an example of an achieved role. Female nurses may bring to their nursing role the socially assigned female roles of daughter, sister, wife, and/or mother.

The theory of achievement motivation assumes that the individual is responsible for the outcome (success or failure) of his achievement-directed behaviors (McClelland, 1961). Within this framework, achievement motivation is considered to be one of the major psychological determinants which directs one's actions for success. The expectancy-value theory of motivation (Atkinson & Feather, 1966) suggests that the determinants of arousal to action in an achievement-oriented behavior context involve three covert variables: expectancy consequences X (motive to achieve X

incentive values), or, in other words, the tendency or motivation of one's behavior is determined by: (a) the expectancy of the consequences of one's actions, (b) the strength of the motive to achieve, and (c) the incentive value of these consequences in reference to one's motives (Atkinson, 1964).

Unfortunately, research on achievement motivation of women has produced equivocal and unreliable results (Farley, 1972; French & Lesser, 1964; Weiner & Potepan, 1970). Several problems with past studies provoke speculation that women may possess different motives, expectancies, and incentive values for achievement-oriented behavior. Women probably define success differently than men do, and there may be several different types of female achievers and nonachievers (Major, 1979). Women vary, however, on a number of dimensions other than achieving tendency. Some studies have ignored the degree to which a woman endorses or rejects the traditional feminine role or have used sex-role inventories which treat masculinity and femininity as a bipolar measure.

The fear of failure construct, measured empirically with anxiety scales (Mandler & Sarason, 1952), may be a factor in deferring women's achievement needs. Atkinson (1964) hypothesized that differences in the strength of the need

for achievement can be explained by postulating a contrasting need to avoid failure. An individual who scores high in achieving tendency would also be low in fear of failure. Conversely, someone who demonstrates a low achieving tendency score would be high in fear of failure (Atkinson, 1964; Weiner, 1972). Fear of failure, an internal psychological barrier, inhibits an individual from seeking achievement activities because of anxiety or shame of failure. It is often suggested that the social norms which describe the low self-esteem female may help to develop failure fears in women.

The motive to avoid success ("fear of success") has been conceptualized within the framework of an expectancy-value theory of motivation to also explain the inconsistencies in research on achievement motivation in women (Horner, 1972a). In an expectancy-value framework, each individual has a variety of roles he/she is expected to play out. The gender-related norms which exist in the American culture expect males to be competent, independent, competitive, and achievement oriented. This widely held stereotype views these "masculine-related" traits as incongruous with femininity. Because this society defines roles rather specifically, a competent and otherwise achievement-oriented woman, may be thrown into a role conflict between her feminine

image and development or expression of competence. Horner (1972a) concluded that a motive to avoid success is aroused in a woman and when faced with such a conflict, she will adjust her behavior to the assigned feminine sex role. Fear of success and role conflict are viewed as internal psychological barriers with regard to achievement behavior.

Female nurses may also bring to their role the socially assigned female traits, for example, submissiveness and non-aggressiveness, which are inconsistent with the image of nursing currently advanced by leaders of the profession. The association of the achieved role with socially ascribed female behaviors may lead to role conflict and a barrier to achievement. In fact, Stromborg (1976) found that the female student who endorsed a masculine sex role experienced more identification with the role of nursing held by the profession. A student with a more feminine sex-role identity experienced more conflict with her role as a nurse.

If the feminine sex role is endorsed by the nurse, she may develop an expectancy that success in achievement-related situations will be followed by negative societal consequences. The nurse may never aspire, then, to positions of higher achievement or leadership because of a perception that achievement goals are nonacceptable within the female role. As a result of a widely held societal stereotype of

women, how many Master's prepared nurses today continue to be employed in nonleadership positions?

Nursing, as a predominately female vocation, has been influenced by the American stereotyped image of women. Some of the current problems in nursing may possibly be related to its traditional emphasis on a feminine image. Many nurses lack the characteristics necessary for career commitment and professional advancement (Lamb, 1973). The historical socialization of nurses has stressed subordination to doctors and hospital administrators (Ashley, 1976; Lamb, 1973).

While nursing remains a strongly sex-typed vocation, the ideal nurse is described as psychologically androgynous, possessing both masculine and feminine characteristics (Minnigerode, Kayser-Jones, & Garcia, 1978; Simpson & Green, 1975). Androgynous individuals appear to combine the masculine person's independent nature with the feminine person's nurturance, depending upon the situational appropriateness of these behaviors (Bem, 1975, 1977; Bem, Martyna, & Watson, 1976). With the development of the operationally defined concept of androgyny, as an alternative to the masculine-feminine dichotomy, a more accurate examination of sex-role orientation and achieving tendency may be possible.

Research Questions

The following research questions were addressed in this study:

1. Is there a relationship between sex-role identity and achieving tendency in female graduate nursing students?
2. Is there a difference between the percentages of female graduate nursing students falling in four designated sex-role categories and Bem's female sample of Stanford undergraduates (Bem & Watson, 1976)?
3. Is there a difference between the mean score for achieving tendency in female graduate nursing students and the mean score for achieving tendency in a female normative sample of university undergraduates (Mehrabian & Bank, 1978)?

Definition of Terms

The following listing includes the major conceptual definitions used in this study. An operational definition was given for all measurable variables:

1. Androgyny: the equal endorsement of both masculine and feminine attributes within an individual.
2. Androgynous: sex-role classification for an individual who scored above the median in both Masculinity and Femininity on the Bem Sex-Role Inventory (BSRI), based on

the median Masculinity and Femininity scores of Bem's normative sample (Bem, 1979).

3. *Feminine, femininity*: A cultural standard of characteristics and behaviors generally attributed to the female sex.

4. *Feminine*: sex-role classification for an individual who scored above the median in Femininity and below the median in Masculinity on the BSRI, based on the median Masculinity and Femininity scores of Bem's normative sample (Bem, 1979).

5. *Masculine, masculinity*: a cultural standard of characteristics and behaviors generally attributed to the male sex.

6. *Masculine*: sex-role classification for an individual who scored above the median in Masculinity and below the median in Femininity on the BSRI, based on the median Masculinity and Femininity scores of Bem's normative sample (Bem, 1979).

7. *Undifferentiated*: sex-role classification for an individual who scored below the median in both Masculinity and Femininity on the BSRI, based on the median Masculinity and Femininity scores of Bem's normative sample (Bem, 1979).

8. *High achievers*: individuals who have a stronger motive to achieve success relative to their motive to avoid

failure (Mehrabian, 1968).

9. Low achievers: individuals who have a stronger motive to avoid failure relative to their motive to achieve success (Mehrabian, 1968).

10. Achieving tendency: a behavioral disposition for an individual who strives for success in situations where standards of excellence are applicable as measured by the Mehrabian Achieving Tendency Scale (Mehrabian, 1968; Mehrabian & Bank, 1978).

Limitations

The limitations of this investigation were the following:

1. The sample was selected from a population of female graduate nursing students enrolled at one southwestern, state-supported university, thus findings of the study were only generalized to the subjects in this sample.

2. The sample consisted of volunteer subjects selected by a convenience method from the available population without random selection.

Summary

A multiple correlational study of sex-role categories and achievement motivation was conceptualized within

a general and collective framework of role theory and expectancy-value theory of motivation. Some internal and external psychological barriers to achievement motivation in women were discussed within this conceptual framework. The major focus of the study examined the relationship between sex-role identity and achievement motivation in a sample of female graduate nursing students. This research problem was justified with relevance to the advancement of nursing as a profession. Three research questions were derived from the problem statement. The conceptual and operational definitions were given for all major variables. The limitations were recognized that diminished the generalizability of the study.

CHAPTER 2

REVIEW OF LITERATURE

The literature on achievement motivation and sex-role orientation in women is reviewed in an attempt to identify theoretical and empirical relationships of these variables. The relative impact of some internal and external psychological barriers to achievement and sex-role behaviors is examined with particular emphasis on the influence of society's sex-role expectations on achievement orientation in women.

The two major internal factors, fear of failure and fear of success, are examined within the achievement-motivation framework. Expected consequences, incentive values, and self-esteem barriers are related to the fear of failure construct while role conflict is briefly introduced in relation to the fear of success motive. Attitudes toward female competence, which are viewed as external barriers to achieving behaviors in women, are linked with the internal self-esteem factor.

The external attitudinal barriers to achievement motivation, the stereotyped image of women and the subordinate roles of nurses, are woven into the sex-role section of this

literature review.

Related subtopics to sex-role identity are developed and include: gender identity, major theories of sex-role development, sex-role stereotypes, role conflict--one consequence of sex-typing, gender dichotomy, masculinity-femininity, traditional measurements of sex-role identity, androgyny; characteristics of nurses, sex-role identity of nurses, achieving tendency in nurses; sex-role orientation and achievement motivation; and extraneous variables.

Theory of Achievement Motivation

The theory of achievement motivation, as originally formulated, assumed that people with a strong need for achievement (n-ach) would strive for success in situations requiring intelligence and leadership (McClelland, Atkinson, Clark, & Lowell, 1953). This has been a reliable prediction in studies involving male subjects. However, the typically employed projective measures of achievement motivation are not correlated with female achievement effort or academic and intellectual performance (Entwisle, 1972). Women's need for achievement scores frequently did not increase following intellectual and leadership arousal conditions (Alper & Greenberger, 1967; Veroff, Wilcox, & Atkinson, 1953). But females' n-ach scores were often as high or higher than males' under neutral or relaxed

conditions (Kipnis, 1974; McClelland et al., 1953). Female scores have increased, also, under arousal treatments stressing social skill (Field, 1953; French & Lesser, 1964; McClelland et al., 1953). Other recent findings provoke speculation that there may be several different types of female achievers. Nontraditional role-oriented women displayed achievement motivation under standard intellectual arousal conditions, whereas traditional women displayed greater motivation under affiliative arousal conditions (Gralewski & Rodgon, 1980). This implies that sex-role attitudes have an impact on achievement motivation.

Because investigations of women's needs to achieve produced equivocal and unreliable results, early researchers concluded that the achievement motive was only valid for males. In fact, until recently, they stopped studying women altogether.

The predictive validity of the concept of need achievement has been questioned by numerous investigators (Klinger, 1966; Smith, 1968; Solomon, 1968). The questionable validity of the studies using the traditional projective measures of achievement motivation may be due in part to the low reliability of the measure (Entwisle, 1972; Mehrabian, 1968). In trying to explain some of the inconsistencies in research on achievement motivation, it is helpful to

discuss how this motive is measured.

Measurements of the Achievement Motive

Achievement motivation theory assumes that in the course of normal development, human beings acquire a need for achievement which is a relatively stable disposition. McClelland, Atkinson, and Clark (1949) developed the Thematic Apperception Test (TAT) to assess the degree to which achievement need varies among individuals. The TAT, a projective test, consists of a series of ambiguous pictures, and the person taking the test is asked to write a story about each one. The stories are scored for themes related to achievement with the underlying assumption that the subject's motivation would influence the themes in his or her stories. This logic was verified under experimental conditions in which food deprivation was found to increase the number of food-related themes in the TAT stories (Atkinson & McClelland, 1948).

Using a carefully defined scoring system, the researchers would give different instructions to different groups of subjects based on the effects of various conditions (McClelland et al., 1949). The different conditions ranged from no additional directions, other than the description of the picture cues, to instructions where the subjects were told the test measured intelligence and

leadership; the latter has since been called an achievement or intellectual arousal condition.

Problems in the measurement and scoring of the achievement motive have led researchers to devise other projective tests (French, 1958), as well as Mehrabian's (1968, 1969) male and female scales of achieving tendency based on Atkinson's (1964) model of resultant achievement motivation. Mehrabian has recently expanded and improved his original scales (Mehrabian & Bank, 1978).

The problem with traditional measurement tools is that they do not explain the sex differences in the need to achieve. If achievement is a male motive, why were females' scores, in both neutral and aroused conditions, equivalent to male scores following intellectual arousal conditions?

Although there is no theory of achievement motivation for women, the literature supports the existence of some internal psychological barriers in women. There are several reasons for women's lack of achievement effort. Two major motives have been proposed: fear of failure and fear of success.

Fear of Failure

In the expectancy-value theory of motivation (Atkinson & Feather, 1966), achievement behavior was assumed to be a function of both hope of success, which corresponded to the

original achievement motive, and fear of failure or test anxiety. This model suggests that the relative strength of the motive to achieve is the consequence of the expectancy and the incentive value of success or failure in a particular situation. High achievers are individuals with a stronger motive to achieve success (Ms) than a motive to avoid failure (Maf). They set moderate levels of aspiration and undertake moderately difficult tasks. Low achievers, on the other hand, have a stronger motive to fear failure and set very low or very high levels of aspiration on easy or difficult tasks (Atkinson & Feather, 1966).

Fear of failure was believed to be an inhibitory factor which kept individuals from engaging in achievement-directed behaviors. When fear of failure is measured empirically with anxiety scales, there are problems with the interpretation of differences in results due to sex; frequently no sex differences are found, though when differences do appear, women score higher on anxiety (Maccoby & Jacklin, 1974). Maccoby (1966) concluded that a negative relationship exists between various indices of achievement for females and their anxiety scores. The fact that women score higher on anxiety scales may be one reason for their lower achievement effort (Maccoby & Jacklin, 1974). But the validity of these findings may be questioned on several grounds. Male anxiety

scores are higher on measures designed to detect defensiveness and false reporting and there are situations where anxiety may be motivating (Levitt, 1967). Also, the same social norm that permits females to express anxiety and makes them more vulnerable to failure fears, may also lead women to shame and low-esteem given nonattainment of achievement goals.

Self-Esteem

Women seem to hold negative values of their worth relative to men (Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968) but the empirical verification of this stereotypic belief is weak except in achievement related areas. Sex differences were either not examined or not found in studies using standardized tests with self-esteem scales (Coopersmith, 1967; Maccoby & Jacklin, 1974; Primavera, Simon, & Primavera, 1974). However, in studies examining sex differences in achievement-related competence or expectations for success, females perceived themselves as less competent than males (Frieze, 1975; Maccoby & Jacklin, 1974; Parsons, Ruble, Hodges, & Small, 1976). For males, a low course grade was associated with lower self-esteem; for females, a high grade was associated with lower self-esteem (Hollender, 1972). But, as expected, when college women scored high in self-esteem, significantly lower

anxiety scores were also found for these subjects (Marcia & Friedman, 1970).

Fear of Success

The fear of success (FOS) construct has been proposed by Horner (1970, 1972a, 1972b) to explain women's failure to engage in achievement-related behaviors. Horner's original research, conducted over a 7-year period, is summarized within the framework of an expectancy-value theory of motivation (Horner, 1972a). Fear of success is regarded as an expectancy that success in achievement-related situations will be followed by negative external and/or internal consequences, as a result of a widely held societal stereotype. According to this formulation, the social norms which govern behaviors in this culture view competence, independence, competitiveness, and achievement as incongruous with a feminine image, even though they are positively related to masculinity and mental health. Horner (1972a) theorized that a motive to avoid success (M-S) is therefore aroused in highly achieving women and inhibits achievement-directed behavior.

Fear of success was assessed by administering the standard Thematic Apperception Test for n-ach, using verbal cues rather than pictures, to a sample of male and female college students, female junior high and high school students, and female administrative secretaries (Horner, 1972a). This

motive was found more often among females and increased with age, educational level, and ability. Additionally, FOS arousal occurred most often in competitive situations, particularly when the competition was with men (Horner, 1972a).

However, much of the later research on fear of success has not supported Horner's original conceptions or conclusions. Several studies dispelled Horner's prediction that sex makes a difference in the fear of success motive. Hoffman (1974) found that while 65% of the female subjects wrote stories with FOS imagery, so did 77% of the men. Other studies revealed high FOS in men as well (Condry & Dyer, 1976; Tresemer, 1974). Additionally, it was found that ability did not correlate with FOS when measured with SAT scores or with grade point averages (Spence, 1974; Eme & Lawrence, 1976).

Horner (1970, 1972a, 1972b) has implied the existence of a relationship between sex-role orientation and fear of success, with an underlying role conflict barrier. It was concluded:

Most feminine women when faced with a conflict between their feminine image and expressing their competence or developing their abilities and interests, adjust their behavior to their internalized sex-role stereotypes. (Horner, 1972b, p. 67)

But the sex-role/FOS relationship is unclear. Is it assumed from Horner's statement that FOS occurs most often in

feminine, traditionally sex-role oriented women? But Horner (1970, 1972a) also concluded that FOS was most often exhibited in highly competent and achievement-oriented women who were competing in male competitive situations. Does this suggest that just because a woman is achievement-directed, she would also espouse a masculine, nontraditional sex role? Research that has actually examined the sex-role/FOS relationship has produced ambiguous results. Caballero, Giles, and Shaver (1975) found high FOS in nontraditional women, while other empirical data supported the conception that feminine, traditional sex-role oriented women would exhibit greater FOS than nontraditional women (O'Leary & Hammack, 1975).

Some investigators have speculated that the inconsistencies in past findings may be due to the reliability and the "present-absent" scoring system of the FOS motive (Tresemer, 1973; Major, 1979). The use of bipolar sex-role inventories, as well, may be adding to the ambiguity (Major, 1979). Using the Bem Sex-Role Inventory (Bem, 1974) and an objective FOS scale, yielding continuous rather than dichotomous data, Major (1979) suggested that the sex-role/FOS relationship may be curvilinear rather than direct. Androgynous women showed less FOS than masculine or feminine women; yet androgynous and masculine women were higher in

both achievement motivation and performance than feminine women. Masculine women, above all, were highest in FOS (Major, 1979).

Although Webb & Herman (1978) did not measure sex-role identity, they found that nursing students scored significantly higher on fear of success compared to normative samples of women. The investigators suggested that the presence of male physicians in competitive settings may provide the necessary arousal for this motive. However, first year nursing students constituted the sample, thus the possibility of the nurses competing with males in a clinical setting is a premature assumption.

The validity of both the fear of failure and fear of success constructs has indeed been challenged. But as the literature suggests, it is not the isolation of these variables that explains women's deferred achievement needs; it is the proposed combination of many internal and external psychological factors which inhibits achieving behaviors in women. Until there is a clearly defined theory of achievement motivation for women, it is impossible to generalize from the individual findings of past research.

The following section presents the major areas in sex-role development. Although some external barriers to achievement are integrated within this section, specific

attention is given to the ways in which sex-role ideologies and expectations may affect female achievement behaviors.

Sex-Role Identity

The concept of sex-role identity has traditionally been defined in terms of masculine and feminine differences. Furthermore, these sex-role differences have been equated with healthy self-concepts for both men and women: positively-valued masculine traits have represented a "competency" cluster, whereas valued feminine traits have reflected a "warmth-expressiveness" cluster (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). Sex-role identity has also included both cognitive and affective conditions which reflect one's self-endorsement of a masculine or feminine image. For example, masculinity has been related to a cognitive-instrumental orientation on problem solving and goal accomplishment; femininity has been linked with an affective-expressive concern for the welfare of others (Parsons & Bales, 1955).

Gender Identity

The traditional conception of gender identity has also been used to explain the psychologically healthy personality in the course of one's role adoption. Gender identity first evolves from a physical and biological awareness and

acceptance of one's own sex (Kohlberg, 1966). Thus, if a girl knows and accepts herself as female because of certain physical and biological givens, she is considered mentally healthy with respect to gender identity. However, being comfortable with one's gender does not mean that one must adopt same sex traits of behavior or personality (Bem, 1976). Since role preferences are culturally defined, gender socialization, rather than biological sex, influences one's sex-role behaviors.

Theories of Sex-Role Development

There are three main theoretical expositions which emphasize different aspects underlying the socialization of sex-role behaviors. These approaches are psychoanalytically based identification theory (Sears, Rau, & Alpert, 1965), social learning theory (Mischel, 1970), and cognitive-developmental theory (Kohlberg, 1966).

Identification Theory

Identification theory, influenced by Freudian psychoanalytic psychology, emphasizes the importance of the child's identification with the same-sex parent. According to this theory, there are several basic assumptions about human behavior which help to explain the acquisition of sex-roles. First, identification is regarded as an unconscious

process by which children incorporate the personality characteristics of the same-sexed parent as an integral part of their own personality, and mainly as a resolution of fear and anxiety caused by the Oedipus complex (Sears et al., 1965).

Central to psychoanalytic theory are two forms of identification: anaclitic identification, or fear of loss of love, and defensive identification, or fear of retaliation from an aggressive figure. Accordingly, anaclitic identification is developed in infancy by both sexes when the gratification of dependency needs is believed to be the strongest. The parent's absence, particularly the mother's, induces a fear of loss of love in the infant. This fear, in turn, motivates the child to recall the parent's presence by imitating the same-sex parent. At approximately four years of age, when the Oedipus complex supposedly emerges, identification processes begin to diverge for the sexes. Male sex-role development is controlled by defensive identification or fear of retaliation. The boy fears that he may be castrated for Oedipal desires, thus shifts his identification to his father. Conversely, female sex-role development is controlled by anaclitic identification based on fear of loss of her mother's love. Because the female cannot fear castration and thus develop a defensive

identification, she continues anaclitic identification with the mother and assumes her mother's sex-role behaviors (Sears et al., 1965).

Basic to identification theory is the assumption that sex-role behaviors are consistent and irreversible. However, empirical evidence supports a contrasting prediction. A person who displays "masculine" characteristics in one situation may appropriately engage in "feminine" behaviors in a different situation (Bem, 1975; Bem & Allen, 1974).

Social Learning Theory

Social learning theory originates from the behaviorist school of psychology and has used the principles of reinforcement and modeling to elucidate sex-role development. The social learning approach maintains that sex-role identity is acquired through the child's observation and modeling of reinforced sex-appropriate behaviors (Mischel, 1970).

In contrast to the identification approach, social learning theory emphasizes overt behaviors and their consequences rather than covert processes or drives. Similar to identification theory, reinforcement principles have been used to explain the consistency of sex-typed behaviors. Although the social learning theorists believe that the child's early years are important, they do not conclude

that sex-role development is irreversible (Mischel, 1970).

Cognitive-Developmental Theory

The cognitive-developmental theory of sex-role acquisition, based on Piaget's stages and conception of cognitive development, emphasizes thought or intellectual patterns as critical components of growth. Using Piaget's concept of schemata, cognitive-developmentalists suggest that children create schemas, or cognitive categories and associations that organize and guide their sex-role values, behaviors, and attitudes (Kohlberg, 1966).

The categorization of sex-appropriate behaviors is based on the child's gender identity, or the child's early awareness of gender differences. Gender identity then becomes the "organizer" for any new information in the child's social system. As a consequence of gender identity, the child values the attitudes and behaviors of same-sex models. Furthermore, the child develops an expectancy that sex-appropriate behaviors will be reinforced (Kohlberg, 1966).

This brief theoretical discussion implies that in spite of the basic differences between the three approaches, one assumption prevails: sex-typing is a desirable process. According to Bem (1972), this assumption consistently biases

the empirical literature. Although recent empirical evidence has attenuated some of the questionable assumptions in sex-role developmental theories, the following review indicates that in addition to the differential valuing of the male and female role, sex-role stereotypes continue to persist.

Sex-Role Stereotypes

Gender-related norms govern the stereotyped images of the "achieving" male and the "nurturant" female. In a series of studies conducted over a 6-year period, Broverman et al. (1972) examined the current appraisal of sex-role definitions. Consensus continues to exist among subjects differing in sex, age, marital status, religious affiliation, and education about socially desirable characteristics for males and females. Positively-valued masculine characteristics form a "competency" cluster, while positively-valued female characteristics reflect "warmth-expressiveness." These sex-role orientations, for both men and women, are integrated into their self-concepts, and are major determinants of vocational choice (White, 1971).

Male and female clinicians, alike, have traditionally assigned gender appropriate behaviors for members of the American culture, and the healthy personality does not deviate from these socially valued expectancies (Broverman,

Broverman, Clarkson, Rosenkrantz, & Vogel, 1970). A differential endorsement of masculine characteristics is still prevalent in this society. The healthy male adult personality is envisioned as constructively aggressive, assertive, striving for achievement, independent, dominant, ambitious, competitive, and analytical. This composite of "masculine" attributes has typically been highly valued in males but negatively reinforced for females (Broverman et al., 1972; Rosenkrantz et al., 1968). The reciprocal feminine image requires the mentally healthy adult woman to be, among other things, submissive, dependent, nonaggressive, and less competitive (Broverman et al., 1970). However, the clinicians in these studies perceived mental health for the adult, sex unspecified, to be equivalent to the traditionally ascribed masculine characteristics (Broverman et al., 1970). Despite the changing status of women and the influx of the women's liberation movement in our society, this double standard of mental health continues to persist.

Role Conflict--One Consequence
of Sex-Typing

The ambivalence engendered by the culturally defined female role suggests that for women's self-esteem to be raised and for role conflict to be resolved, society will have to value more highly the feminine traits of empathy,

nurturance, and sensitivity, or the socialization of girls will have to encompass the esteemed masculine qualities of independence and assertiveness (Bardwick, 1971).

It is assumed that stress may lead to mental illness. In an attempt to clarify the relationship between adult sex roles and mental illness, it was postulated that the conflicts associated with modern woman's role promote mental illness (Gove & Tudor, 1973). Consistent results indicated higher rates of mental illness for women than for men.

One aspect of role conflict in achievement-striving women involves the sexual division of labor in marital and career life (Epstein, 1970). Marriage was consistently observed as an impediment in graduate school for women students (Feldman, 1973).

Gender Dichotomy

In almost every society sex prevails as a dichotomy cutting across all classes and strata and affects evaluation of a person's role--their position, expectations, and behaviors. Generally, as a result of a person's physiological and anatomical makeup and for reproductive reasons, it is understandable that a gender dichotomy does exist. But society has further imposed a masculine and feminine behavioral dichotomy which has divided an individual's role in sexual terms. An individual rarely exists just as a person;

masculinity and femininity permeates almost all human conditions.

Masculinity-Femininity

The developmental process of how the person comports himself or herself as masculine or feminine dominates the psychological literature. However, in spite of 50 years of measurement of masculinity and femininity constructs, definitions of these terms have been varying and inconsistent, possibly because of the influence of changing social, psychological, economic, and political factors. Constantinople (1973) made the following observation about masculinity and femininity constructs: "both theoretically and empirically they seem to be among the muddiest concepts in the psychologist's vocabulary" (p. 390).

For the purposes of review, these concepts are generally regarded as personality traits and characteristics (Bem, 1974; Broverman et al., 1972; Heilbrun, 1976; Spence, Helmreich, & Stapp, 1975; Williams & Bennett, 1975). These concepts also refer to sex-typed appearances, attitudes, behaviors, interests, values, aptitudes, and vocations (Constantinople, 1973; Maccoby & Jacklin, 1974; Pleck, 1975).

Traditional Appraisals of Sex-
Role Identity

Traditional measures of masculinity-femininity (M-F) in adults employ the standard inventory or questionnaire format and view masculinity and femininity as extreme opposite dimensions on a single bipolar continuum. The major tests of M-F or the measures which include M-F scales are: the Terman and Miles Attitude-Interest Analysis Test, the Strong Masculinity-Femininity Scale of the Vocational Interest Blank, the Minnesota Multiphasic Personality Inventory Masculinity-Femininity Scale, Gough's Masculinity-Femininity Scale of the California Psychological Inventory, and the Guilford-Zimmerman Temperament Survey Masculinity-Femininity Scale (Constantinople, 1973). In general, the personality characteristics on these inventories were selected as masculine or feminine on the basis of the differential response patterns of males and females (Bem, 1974; Constantinople, 1973) and not on the basis of sex-typed social desirability as Bem's (1974) inventory has done.

In a review of these major tests of M-F in adults, Constantinople (1973) disputed the validity of three untested assumptions about the masculinity-femininity construct:

- (a) that it is best defined in terms of sex differences in item responses;
- (b) that it is a single

bipolar dimension ranging from extreme masculinity at one end to extreme femininity at the other; and (c) that it is undimensional in nature and can be adequately measured by a single score. (p. 389)

Recently, however, several developers of M-F scales have dealt effectively with the problems of sex differences, bipolarity, and dimensionality inherent in the traditional measures (Bem, 1974; Berzins, Welling, & Wetter, 1978; Heilbrun, 1976; Spence et al., 1975). Additionally, pioneers in the area of sex roles have conceptualized an alternative to the masculine-feminine dichotomy, the concept of androgyny (Bem, 1974; Rossi, 1965).

Androgyny

The concept of androgyny is derived from the Greek stems "andro" for male and "gyn" for female. In the psychological discourse, androgyny denotes the balance of masculine and feminine attributes within a single individual. The recognition of the androgynous personality was perhaps most evident in early analytic psychology. Although the androgyny term was not used, Jung (1953) stressed the importance of the anima, the feminine inner personality present in a man, and the animus, the masculine inner personality present in a woman. Rossi (1965) originally popularized the androgyny term when she proposed "a socially androgynous conception of the roles of men and women" (p. 99) and argued

that the sexes should strive toward equality and cultivate both masculine and feminine qualities within their roles.

More recently, however, with the reconceptualization of masculinity and femininity as two independent trait constellations, several developers of sex-role identity measures have incorporated the concept of androgyny into their testing typology (Bem, 1974; Berzins et al., 1978; Heilbrun, 1976; Spence et al., 1975). Many investigators have debated Bem's (1974) original operational definition of androgyny (Heilbrun, 1976; Spence et al., 1975; Strahan, 1975). In Bem's (1974) initial scoring and typology of sex-role groups, she defined androgyny using a subtractive index: subjects who scored high in both masculinity and femininity and low in both scales were classified as androgynous. Arguing for a distinction between the high and low scorers, Spence et al. (1975), using a median split for scoring, derived a four-fold taxonomy of subjects: masculine (high masculine-low feminine), feminine (high feminine-low masculine), androgynous (high masculine-high feminine), and undifferentiated (low masculine-low feminine). Accordingly, Bem (1977) altered her original scoring and typology and reanalyzed her previous research (Bem, 1975) to determine if a distinction was warranted. Undifferentiated subjects did differ from the androgynous group

on a pencil-and-paper measure of self-esteem and on a behavioral measure of responsiveness toward a kitten; but these low and high scorers did not differ significantly on the Attitudes Toward Women Scale, the Internal-External Locus of Control Scale, the Mach IV Scale, the Attitudes Toward Problem-Solving Scale, or on a behavioral measure of independence from social pressure (Bem, 1977).

A series of other studies have emerged to determine the relationship between sex-role identity and a number of other personality variables and to evaluate the consequences of androgyny. For example, Nevill (1977), using the Personal Orientation Inventory and the Tennessee Self Concept Scale, found an equal endorsement of both masculine and feminine traits to be related strongly to mental health. Spence et al. (1975) utilized the Personal Attributes Questionnaire and found undifferentiated subjects to be significantly lower in self-esteem than androgynous subjects; results resembling Bem's (1977) study which used the same self-esteem measure, the Texas Social Behavior Inventory.

Although androgynous persons were found to perform in cross-sex behavior with little reluctance or discomfort (Bem & Lenney, 1976) and also appeared to manifest "masculine" independence and "feminine" nurturance depending upon the circumstances (Bem, 1975; Bem, Martyna, & Watson, 1976),

many researchers have asserted that it is the presence of masculine attributes, rather than the integration of masculine and feminine traits, that contributes to personal and social adjustment (Bem, 1977; Deutsch & Gilbert, 1976; Erdwins, Small, & Gross, 1980; Jones, Chernovetz, & Hansson, 1978).

Characteristics of Nurses

While the literature suggests that it is the presence of masculine characteristics that contributes to mental health, the ideal nurse is still described as psychologically androgynous (Minnigerode, Kayser-Jones, & Garcia, 1978; Simpson & Green, 1975). Both masculine characteristics (independence, competitiveness, assertiveness) and feminine traits (compassion, sensitivity, understanding) are important to nursing.

Since nurses are typically sex-typed as female, they are also stereotyped as supporting a traditional feminine ideology. Nurses are often described as submissive, nurturant, passive, intuitive, caring, and self-sacrificing (Rodgers, 1975; Wolf, 1972; Yeaworth, 1976) and as lacking the masculine characteristics necessary for career commitment and professional advancement (Lamb, 1973). Nurses also frequently subordinate themselves to physicians and hospital administrators (Ashley, 1978; Lamb, 1973). Whether any

profession needs sex-typed individuals is questionable. The continued revision, expansion, and improvement of any professional practice is dependent upon the achievement-striving behaviors of its members. But it is probably the rejection of masculine characteristics, not the endorsement of feminine attributes, that restrains achievement tendencies in women.

Master's prepared nurses are expected to be competent as either a generalist or a specialist in a particular field of nursing or to act as leaders in teaching or administration (American Nurses' Association, 1978). It is also expected that graduate nursing students demonstrate general scholarly behaviors and attitudes in order to realize competency and leadership goals. In essence, nurses holding advanced degrees are influential in shaping the composition of the nursing profession, especially considering their respected role areas--teaching, administration, clinical practice, or research.

Although research investigating the personality profiles of graduate nursing students in Master's program has been meager, the following three studies illustrate some expected values and traits of these nurses. Only the personality traits relevant to the focus of this thesis are described.

In a study investigating the values of graduate nursing students, significant increases in the values of support, recognition, and independence were found at the completion of one academic year; as expected, the value of achievement remained the same (Williams, Bloch, & Blair, 1978). Gilbert (1975) and Miller (1965) attempted to determine if personality profiles enter into the choice of a clinical speciality. Using the California Psychological Inventory (CPI), among other instruments, Miller (1965) found medical-surgical nurses to be more passive and less independent than public health, parental-child, and psychiatric nurses. The medical-surgical majors were also inclined to be overly conforming and conventional in most situations. The psychiatric nurses, on the other hand, were found to be forceful, highly independent, and less conforming than the other groups. When Gilbert (1975) compared the personality profiles and leadership potential of medical-surgical and psychiatric graduate nursing students, she also used the CPI. However, the only significant difference was found on the responsibility variable: medical-surgical majors scored higher. Overall, both groups revealed high intellectual and academic capabilities, showed a more optimal personality development than the norm, scored about average in their degree of femininity, and received a high rating in leadership potential.

Sex-Role Identity of Nurses

In a validation study of the Bem Sex-Role Inventory, Vandever (1978) chose university-based nursing students and compared these subjects to the housewives in Gaudreau's (1975) report because it was hypothesized that both groups were stereotypically feminine. The average femininity scores for the housewives and nurses were 5.4 and 5.1, respectively; both above the 4.90 median femininity score of Bem's (1979) normative sample. As well, the average masculinity scores of the housewives and nurses fell below the 4.95 median masculinity score of Bem's sample: housewives, 4.4; nursing students, 4.7. Moreover, 51% of the nursing students were classified as feminine as compared to 4% who espoused a masculine sex-role. Vandever (1978) stated that the nursing faculty expressed a concern with this latter finding given the lack of aggressiveness, assertiveness, leadership, and risk taking on the part of the nursing students.

Although nursing is generally regarded as a highly sex-typed profession, Weisberger (1951) found more masculine interests in female nursing students than in general college students. In a study of personality correlates of male nurses, however, these subjects were found to be more feminine than junior college students (Aldag & Christensen,

1967). When Stromborg (1976) examined the relationship between sex-role identity and image of nursing of female senior nursing students, she found that the student who had a more masculine sex-role also experienced more harmony with the image advanced by the profession. All three of these studies (Aldag & Christensen, 1967; Stromborg, 1976; Weisberger, 1951) used the masculinity-femininity scale (Mf) of the Minnesota Multiphasic Personality Inventory (MMPI) to measure either sex-typed interests or sex roles. However, the MMPI (Mf scale) was developed to identify sexual inversion in males (Hathaway & McKinley, 1943), thus its appropriateness as a measure of masculinity and femininity in a general population is questionable, even if the researcher is not concerned with the bipolarity of the M-F constructs.

Using the Bem Sex-Role Inventory, Till (1980) reexamined the relationship between sex-role identity and image of nursing. When compared with general college women, more nursing students (both entry and exit level) were classified as feminine and fewer nursing students were found in the masculine and undifferentiated groups. Other analyses revealed: exit students endorsed more masculine characteristics than entry students; both entry and exit level groups differed significantly from the image advanced by the profession. However, in keeping with the primary focus of the

study, Till (1980) found that the level of endorsement of masculine characteristics, not masculine role identity, was positively related to the image of nursing held by the profession.

In another study (Ziegler, 1977) comparing both male and female baccalaureate nursing students with general college students, no significant differences were found in sex-role identity. Ziegler (1977) used the Personal Attributes Questionnaire (PAQ) (Spence et al., 1975), an instrument very similar to the BSRI which incorporates the concept of androgyny.

Although these past studies have demonstrated conflicting findings when the subjects were asked to self-rate the personality characteristics on the sex-role inventories, undergraduate and graduate nursing students rated the "ideal" nurse on the PAQ as being androgynous; graduate and male nursing students rated the ideal nurse as being more masculine (Minnigerode et al., 1978). Again, however, differences were found in self-report studies: only 38% of a sample of nurses described themselves as psychologically androgynous (Simpson & Green, 1975), as compared with 60% of a nursing student sample who were classified as androgynous (Minnigerode, 1976).

Achieving Tendency in Nurses

Only two studies were found that addressed the problem of achievement motivation in nurses. Webb and Herman (1978) investigated first year nursing students' need achievement (Mehrabian Achieving Tendency Scale for females), fear of success (an objective measure of the motive to avoid success), locus of control (Rotter's Internal-External Scale), and other personality traits as measured by the Personality Research Form (PRF) A. Baccalaureate students scored significantly higher than diploma students on the Mehrabian scale and on the achievement scale of the PRF. Both groups were similar to a normative sample of women in achievement motivation and in external control. However, both nursing groups were higher than the normative sample on fear of success, affiliation, and nurturance and scored significantly lower on aggression. The authors suggested that "when nurses are criticized for lacking in aggression, what is really meant is that they are lacking in assertiveness" (Webb & Herman, 1978, p. 81).

The professional development of nurse practitioners was investigated as a function of need motivation using McClelland's 1961 version of the TAT, learning style, and locus of control (Christensen, Lee, & Bugg, 1979). The findings indicated that the nurses with moderate need for

achievement, high need for affiliation, and moderate need for power performed significantly more professional activities in a clinical setting than nurses with high need for achievement, low need for affiliation, and high need for power. The researchers suggested that it is the balance of the three motivational needs (achievement, affiliation, and power) that may help the nurse to function more effectively in the expanded role.

Sex-Role Orientation and Achievement Motivation

In keeping with the major focus of this study, several studies support the basic assumption that achievement motivation in women is related to personal sex-role preferences. However, no investigations were found to test this hypothesis in a sample of nurses.

The relationship between sex-role orientation and achievement motivation in college women was examined using the Wellesley Role Orientation Scale (WROS) and picture stimulus cues for evoking achievement motivation (Alper, 1973, 1974). The differences in the thematic content of success stories told by the low scorers ("low fems" on the WROS) and the high scorers ("high fems") were reported. The four subthemes contained in stories told by low-WROS scorers were: hard work pays off; support was given by an achieving

model; achievement was facilitated through cooperative effort; and achievement was facilitated by competition or rivalry. The subthemes included in stories told by high-WROS scorers were: to achieve, women have to work harder than men; woman is seen as man's helper; and achievement is instrumental to the gratification of a need other than achievement, usually affiliation. Four major themes also emerged: successful achievement; dangers of achieving; task completion; and themes unrelated to achievement (Alper, 1973, 1974). Similar to Horner's (1970) framework, these four themes were reduced to two categories: success and avoidance of success.

The results of the Alper studies (1973, 1974) support the prediction that achievement motivation in women is significantly related to sex-role orientation. Low feminine subjects usually told high success stories, while high feminine scorers told low success stories or stories related to men. A replication study was also reported (Alper, 1973) and indicated that the relationships were relatively stable.

The effect of sex-role orientation (Fand Inventory of Sex-Role Orientation) on self-esteem (Coopersmith Self-Esteem Inventory), need achievement (n Ach) (Mehrabian's Achievement Scale for Females) and locus of control (Rotter's Internal-External Locus of Control Scale) was

investigated in a sample of 98 college females (Bedeian & Zarra, 1977). The three major hypotheses were supported: college females with a nontraditional sex-role orientation scored higher in n Ach than those with a traditional sex-role orientation; no statistical difference existed in the self-esteem scores of the two groups; and the self-esteem and locus of control relationship varied for both nontraditional and traditional groups.

The following two studies described both achievement motivation and sex-role orientation as independent variables but also found significant relationships between the two. Marshall and Wijting (1980) studied the relationships of achievement motivation and sex-role identity to college women's career orientation. The two major subdivisions of career orientation were career centeredness, the individual places a career above other life activities as a source of satisfaction, and career commitment, the person has the intention of steadily pursuing a career throughout life. Career centeredness was found more often in masculine women and correlated higher with achievement motivation.

Teglasi (1978) used the male version of Mehrabian's (1968) Achieving Tendency Scale and the Wellesley Role Orientation Scale (Alper, 1973) and found that women with a traditional role orientation had lower achievement

motivation than women who espoused a nontraditional role.

However, the central point of Teglasi's study was to determine the causal attributions for success or failure outcomes of college women. Subjects who endorsed the traditional feminine role were more self-derogating in causal attribution than nontraditional subjects. Achievement-oriented women were more self-enhancing following failure. However, following competitive success against male opponents, the high achievers were less self-enhancing than those low in achievement motivation (Teglasi, 1978). This latter finding is similar to one conclusion made in Major's (1979) study: sex-reversed women who were higher in both achievement motivation and performance were also highest in fear of success (FOS). Major's (1979) investigation also reported that androgynous women evidenced less FOS than both high feminine and high masculine women. As predicted, both androgynous and sex-reversed women were higher in achievement motivation and performance than sex-typed women.

This foregoing discussion seems to indicate that the personality characteristics associated with achievement motivation and masculinity, such as independence, assertiveness, and competitiveness, are also antagonistic to the social norms that influence feminine sex-role behaviors. Since the adoption of masculine traits are requisites for

achievement behaviors, an examination of the relationship between sex-role identity and achieving tendency appeared relevant.

Extraneous Variables

Although the confluence of variables and predictors related to achievement motivation in women needs to be better identified, the extraneous variables that relate in some way to this study's focus are reviewed here. Most of the published studies on achievement orientation have been restricted to middle-class whites, thus these variables are excluded from this discussion.

Achieving tendency is basically independent of ability. Nevertheless, Weiner (1972) found a low positive correlation between achievement and GPA. Age and marital status may also influence need achievement scores as increases in achievement motivation have been found in more mature married women (Bardwick, 1971).

Maternal employment in middle-class families has been associated with high educational and occupational aspirations for females (Nye & Hoffman, 1963). Both male and female students with employed mothers perceived significantly fewer differences between masculine and feminine roles than those students with homemaker mothers (Vogel, Broverman, Broverman, Clarkson, & Rosenkrantz, 1970).

However, identification or rejection of a traditional model's role may be a better indicator of achievement standards in women. Many successful women with high achievement aspirations often mentioned the importance of support from an achieving model who is usually outside the family (Almquist & Angrist, 1971).

Summary

This review of literature reflects the diversity as well as the lack of research on female achievement-related behaviors. Achievement-motivation theory, as originally formulated, was developed to explain the behaviors of males. Although many investigators have questioned the validity and the reliability of the projective measure of achievement need, the TAT, using arousal cues, has been a reliable predictor in studies involving males. It is understandable, then, that when the researchers attempted to apply the original theory to females, the findings were confounding their predictions. Several problems with past studies provoke speculation that women may possess different motives, expectancies, and incentive values for achievement-oriented behaviors. Women probably define success and failure differently than men do, and there may be several different types of female achievers and nonachievers.

Explanations for women's lack of achievement effort have centered around the relative impact of several psychological factors. For this reason, some external and internal factors have been woven into the achievement-motivation and sex-role frameworks. However, the relationship of these factors to achievement-motivation theory is still empirically uncertain. The constellation of variables related to the achievement motive may be better understood when a theory of achievement motivation is developed for females.

Much of the literature reviewed in the sex-role section has been concerned with the traditional view of women's role along with an alternative to the masculinity-femininity dichotomy, the concept of androgyny. This review on sex-role identity, similar to achievement motivation research of women, has indicated that recent empirical evidence and social changes have attenuated some of the questionable assumptions in both achievement motivation and sex-role theories. However, several myths about the ideology of women and their expected role behaviors continue to dominate the literature on women and on nurses as well.

The nursing role, because of its high level of congruence with nurturant and diffuse relationship patterns, often provides for women an acceptable profession without deviating from the traditional female role. Some of the

current problems in nursing may be related to its traditional emphasis on a feminine image. However, nurses who endorsed masculine characteristics also affirmed an image of nursing similar to the image advanced by leaders in the profession. Since the literature supports the association of masculine traits with achievement behavior, it was relevant to investigate if the sex-role identity of a nurse was related to her achievement orientation.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

A nonexperimental approach was employed in this study. The independent variable, sex-role identity, was not controlled or manipulated by the investigator. The aim of this study was to describe the relationship between the variables, sex-role identity and achievement motivation, not to infer cause-and-effect, thus it was descriptive and correlational in nature (Polit & Hungler, 1978).

Setting

The study was conducted at a southwestern, state-supported institution of higher education. Subjects completed the research instruments in natural classroom settings at the university.

Population and Sample

The population included 73 female graduate nursing students enrolled at the selected university. Nonprobability sampling, the selection of subjects by a nonrandom method, was used to obtain as large a sample as possible. Using a convenience method, the investigator distributed the

questionnaires to all available subjects enrolled in graduate courses during the Spring semester 1981.

Protection of Human Subjects

In compliance with the current rules and regulations of the Human Research Review Committee at Texas Woman's University, approval for the utilization and protection of human subjects was obtained. This included permission from Texas Woman's University to conduct the study, agency permission (the institution described in the setting), and consents from all human subjects in the study (Appendix A). The following steps were taken to protect the individual rights of the subjects:

1. A written and verbal explanation of the study, with possible risks and benefits, was given prior to measuring subjects' response.
2. Consent forms were read and signed by the subjects and collected prior to the distribution of the instruments.
3. Subjects were instructed to omit their names from the instruments in order to maintain anonymous and confidential test data.
4. The approach to data analysis was normative.

Instruments

In this study the investigator utilized three instruments for measuring subjects' response on the variables of interest. The instruments were: the Demographic Data Sheet, the Bem Sex-Role Inventory, and the Mehrabian Achievement Tendency Scale.

Demographic Data Sheet

The Demographic Data Sheet was used to collect data on the following variables: age, marital status, religious preference, racial-ethnic background, highest educational preparation, nursing specialization area, nursing role area, and primary occupation of parents (Appendix B, Tool 1).

Bem Sex-Role Inventory

The Bem Sex-Role Inventory (BSRI) (Bem, 1974), which treats masculinity and femininity as two empirically and logically independent dimensions, was utilized to determine subjects' sex-role identity (Appendix B, Tool 2). This instrument contains three scales: a Masculinity scale, a Femininity scale, and a Social Desirability scale. Each scale embraces 20 personality characteristics and is listed in the first, second, and third columns of Appendix C, respectively.

The Masculine and Feminine items were selected from a list of 200 personality characteristics which were considered to be both masculine and feminine and positive in tone. These characteristics were judged to be significantly ($p < .05$) more desirable in American society for one sex than for the other. The Social Desirability items were selected ($p > .20$) from an additional list of 200 characteristics that were judged to be "neutral" in gender. In order to evoke a social desirability response set, ten of these 20 items are positive in value and ten are negative (Bem, 1974).

The BSRI uses a Likert-type scale with a range from 1 (never or almost never true) to 7 (always or almost always true) and is labeled at each point. On this 7-point scale, subjects indicated how well each of the 60 items described herself. Three major scores were computed for each subject: a Masculinity score, a Femininity score, and a Social Desirability score (Bem, 1974).

Using the Masculinity score and the Femininity score, which vary independently, the subjects were classified for sex role as: Masculine (high masculine-low feminine), Feminine (high feminine-low masculine), Androgynous (high masculine-high feminine), or Undifferentiated (low masculine-low feminine) (Bem, 1977; Bem & Watson, 1976). The scoring

of the BSRI involved the following procedure:

1. Calculating the masculinity mean score and the femininity mean score for each subject.

2. Classifying each subject in one of the four categories based on whether her scores were above or below the median masculinity and femininity scores, 4.95 and 4.90, respectively, of a normative sample of Stanford undergraduates (Bem, 1979; Bem & Watson, 1976).

The Social Desirability scale was scored by: reversing the self-ratings for the 10 negative items and then computing the subject's mean score on all 20 items (Bem, 1974).

To estimate internal consistency of the BSRI, coefficient alpha was computed and demonstrated high reliability. The coefficients for a Stanford sample were: Masculinity $\alpha = .86$; Femininity $\alpha = .80$; Social Desirability $\alpha = .75$; and the Androgyny difference score was $.85$; and in a Foot-hill sample: Masculinity $\alpha = .86$; Femininity $\alpha = .82$; Social Desirability $\alpha = .70$; and the Androgyny difference score was $.86$ (Bem, 1974).

Test-retest reliability was determined using Pearson product-moment correlations which demonstrated high reliability for the scores over a four-week period: Masculinity $\underline{r} = .90$; Femininity $\underline{r} = .90$; Androgyny $\underline{r} = .93$; and Social Desirability $\underline{r} = .89$ (Bem, 1974).

Criterion-related validity was examined by correlating the BSRI with the Masculinity-Femininity scales of the California Psychological Inventory (CPI) and the Guilford-Zimmerman Temperament Survey. The CPI scales were moderately correlated with the Masculinity, Femininity, and Androgyny scales of the BSRI (Bem, 1974).

Mehrabian Measure of Achieving Tendency

A self-rating scale of individual differences in achievement motivation (Mehrabian & Bank, 1978), was used to differentiate between high and low achievers in the nurse sample (Appendix B, Tool 3).

Four pilot studies were conducted to establish the final 38-item measure of achieving tendency. This scale was selected from a large pool of diverse content groups in order to assure the generality of the measure. The content groups were drawn from the literature on achievement motivation, as well as from other achievement measures (Mehrabian & Bank, 1978).

The Mehrabian measure of achieving tendency uses a 9-point scale with a range from -4 (very strong disagreement) to 0 (neither agreement nor disagreement) to +4 (very strong agreement). Agreement or disagreement with an item indicates a behavioral disposition that serves to discriminate

between high versus low achievers (Mehrabian, 1968). The scale items are positively and negatively balanced for scoring directions and response bias. However, the 39 statements were listed without their values when presented to the subjects. Each subject's achieving tendency score was computed by algebraically summing the positive items and by subtracting from this score, the algebraic sum of the negative items (Mehrabian & Bank, 1978).

Internal consistency reliability was established using the Kuder-Richardson formula 20. A reliability coefficient of .91 was obtained indicating the test items are highly homogeneous, even though the items were integral parts of many dissimilar content groups (Mehrabian & Bank, 1978).

Both satisfactory discriminant and convergent validity are reported. Discriminant validity was evident when this measure was found to be relatively independent with the Crowne and Marlowe Social Desirability scale (a correlation of .02). The measure demonstrates convergent validity by correlating positively with Jackson's achievement scale (.74) and with Mehrabian's 1969 achieving scale for males (.59) and for females (.68). Level of significance for these three correlation coefficients was established at the .01 level (Mehrabian & Bank, 1978).

Data Collection

The three instruments were presented in a systematic and standardized fashion to the sample in the designated test institution. A one-week period was the length of time for data collection. The time frame was early Spring semester 1981.

A verbal and written explanation of the study and information regarding possible risks and benefits of participation were given to the volunteer subjects. The subjects were advised to omit their names and were reminded to follow all written instructions on the instruments.

The investigator distributed the questionnaires to the subjects in all the graduate nursing classes held during the duration of this study. The entire testing series for each group of student took approximately 30 minutes to complete. Abstracts were available on request at the completion of the study.

Treatment of Data

The data were analyzed using various descriptive, inferential, and regression techniques. Frequencies, means, and standard deviations were used to describe the demographic and explanatory variables. The relationships among the independent variables, the four sex-role categories and social desirability, and the dependent measure, achieving

tendency, were determined by multiple regression analysis. The chi-square test was used to compare the percentages of the nurse subjects falling in the four designated sex-role categories and Bem's normative sample (Bem & Watson, 1976). The one sample z test was used to test the significance of the difference between the means of the nurse sample and Mehrabian's normative sample (Mehrabian & Bank, 1978).

Summary

The procedure for collection and treatment of data was presented for this nonexperimental, descriptive, and correlational study. Using a convenience sampling method, the designated subjects completed three instruments in natural classroom settings in a southwestern, state-supported university. The steps taken to protect the human subjects prior to the investigation were described. The three instruments used in this study, a Demographic Data Sheet, the Bem Sex-Role Inventory, and the Mehrabian Achievement Tendency Scale were described in detail. Lastly, the methods for collection and statistical treatment of data were substantiated for this study.

CHAPTER 4

ANALYSIS OF DATA

The analysis of the data is presented in this discussion using various descriptive, inferential, and regression techniques. The description of the sample is presented in the first section. The findings of the study are reported in the second section and are organized according to the three major research questions.

Description of Sample

A convenience sample of 73 subjects was selected from the population of female graduate nursing students enrolled at one southwestern, state-supported university. The mean age of these subjects was 31.83 years with a range of 22-49 years.

Frequency distributions and percentages of subjects as a function of specified demographic categories are presented in Table 1. The greater proportion of subjects described themselves as married (48%), Protestant (56%), and Caucasian (95%). The highest educational preparation for 90% of the subjects was a baccalaureate degree in nursing. The majority of subjects reported medical-surgical nursing (52%) as their nursing specialization area and selected teaching

Table 1

Frequency and Percentage of Graduate Nursing Students.
as a Function of Demographic Category

Demographic Category	Frequency (N = 73)	Percent
Marital Status:		
Single	23	31.51
Married	35	47.94
Divorced	14	19.18
Separated	0	0
Widowed	1	1.37
Religious Preference:		
Catholic	23	31.51
Jewish	0	0
Protestant	41	56.16
Other	9	12.33
Racial-Ethnic Background:		
American Indian	0	0
Mexican American	0	0
Oriental	2	2.74
Black	2	2.74
White	69	94.52
Other	0	0
Highest Educational Preparation:		
Baccalaureate in Nursing	66	90.41
Baccalaureate in Other Field	1	1.37
Master's	6	8.22
Other	0	0
Nursing Specialization Area:		
Community Health	14	19.18
Maternal-Child Health	13	17.81
Medical-Surgical	38	52.05
Psychiatric-Mental Health	8	10.96

Table 1--Continued

Demographic Category	Frequency (N = 73)	Percent
Nursing Role Area:		
Teaching	37	50.68
Administration	14	19.18
Clinical Practice	22	30.14
Research	0	0
Mother's Primary Occupation:		
Employed	35	47.95
Housewife	38	52.05
Father's Primary Occupation:		
White Collar Professional	25	34.25
White Collar Business	28	38.35
Blue Collar	19	26.03
Not Given	1	1.37

(51%) as their role area. Approximately 52% of the subjects reported their mother's primary occupation as a housewife, while 48% of the subjects indicated that their mothers were employed in various positions.

The subjects reported numerous occupations for their fathers. For descriptive purposes, these occupations are classified into three areas and are represented by the following percentages: white collar professional (34%), white collar business (38%), and blue collar (26%).

The percentages of female graduate nursing students who were classified as feminine, undifferentiated, androgynous, and masculine are presented in Table 2. The percentages of

Table 2

Percentage of Subjects in Four Sex-Role Groups

Sex Role	Nurse Sample (N = 73)	Normative Sample (N = 290)
Feminine	30.13	34.2
Undifferentiated	13.70	20.3
Androgynous	31.51	29.3
Masculine	24.66	16.2

subjects in the four sex-role groups for a 1975 female sample of Stanford undergraduates (Bem & Watson, 1976) are also reported in this table. Of particular interest is that a relatively equal percentage of nursing students were classified as feminine and androgynous, similar to the percentages of these categories in the normative sample. Additionally, the means and standard deviations of the masculine and feminine raw scores of the graduate nursing students were: $\bar{x} = 5.00$, $SD = 0.61$ and $\bar{x} = 4.99$, and $SD = 0.54$, respectively.

Table 3 describes the frequencies and percentages of the subjects' sex-role categories as a function of the subjects' nursing specialization area. The androgynous subject was most evident in the community health (43%) and

Table 3
 Frequency and Percentage of Subjects' Sex-Role Category as a
 Function of Nursing Specialization

Nursing Specialization	Sex-Role Category							
	Femininity f	%	Undifferentiated f	%	Androgynous f	%	Masculinity f	%
Community Health (N = 14)	3	21.43	2	14.28	6	42.86	3	21.43
Maternal-Child (N = 13)	3	23.08	3	23.08	4	30.76	3	23.08
Medical-Surgical (N = 38)	13	34.21	4	10.53	13	34.21	8	21.05
Psychiatric- Mental Health (N = 8)	3	37.50	1	12.50	0	0	4	50.00

maternal-child groups (31%). The feminine and androgynous sex-role categories were equally represented in the medical-surgical nursing students (34%). The psychiatric-mental health nurses were predominantly masculine (50%).

The achieving tendency scores for subjects as a function of nursing specialization area are presented in Table 4. The scores do not indicate that one group scored higher in achieving tendency than another group.

Table 4
Achieving Tendency Scores for Subjects as a Function
of Nursing Specialization

Nursing Specialization	Achieving Tendency		
	\bar{x}	Range	SD
Community Health (N = 14)	71.64	4-115	31.1
Maternal-Child (N = 13)	67.69	29-101	20.9
Medical-Surgical (N = 38)	75.82	17-138	28.3
Psychiatric-Mental Health (N = 8)	76.13	20-120	29.3

The achieving tendency scores for subjects as a function of sex-role category are presented in Table 5. An overall difference in achieving tendency for the four groups

Table 5

Achieving Tendency Scores for Subjects as a Function
of Sex-Role Category

Sex-Role Category	Achieving Tendency		
	\bar{x}	Range	SD
Feminine (N = 22)	57.50	18- 88	17.1
Undifferentiated (N = 10)	32.90	4- 59	15.4
Androgynous (N = 23)	87.08	58-138	18.7
Masculine (N = 18)	98.66	78-123	12.6

is evident. The rank order of sex-role associated with a higher achieving tendency score was masculine, androgynous, feminine, and undifferentiated.

Findings

This study was designed to test the following research questions:

1. Is there a relationship between sex-role identity and achieving tendency in female graduate nursing students?
2. Is there a difference between the percentages of female graduate nursing students falling in four designated sex-role categories and Bem's female sample of Stanford undergraduates (Bem & Watson, 1976)?

3. Is there a difference between the mean score for achieving tendency in female graduate nursing students and the mean score for achieving tendency in a female normative sample of university undergraduates (Mehrabian & Bank, 1978)?

Research Question 1

Product-moment correlation coefficients were computed to determine the relationships between the Masculinity, Femininity, Social Desirability, and Achieving Tendency scores (Table 6). Significant relationships were found between achieving tendency and masculinity and between achieving tendency and social desirability. The correlation between achieving tendency and femininity was not significant.

Additionally, product-moment correlations were computed between the Social Desirability score and the Masculinity and Femininity scores. Both masculine and femininity were significantly correlated with social desirability. In contrast, when the masculinity and femininity scores were correlated with each other, no relationship was found.

Multiple regression analysis was performed to determine, via R^2 , the proportion of the variance in the variable achieving tendency which was accounted for by age, marital

Table 6

Correlation Matrix for the Femininity, Masculinity, Social Desirability, and Achieving Tendency Scores

	Femininity	Masculinity	Social Desirability	Achieving Tendency
Femininity	1.00			
Masculinity	-.1384 (p = .121)	1.00		
Social Desirability	.2775 (p = .009)	.2139 (p = .035)	1.00	
Achieving Tendency	-.0163 (p = .446)	.7056 (p = .001)	.3308 (p = .002)	1.00

status, nursing specialization area, nursing role area, and sex-role identity. This analysis revealed, as seen in Table 6, that 71% of the variance in the achieving tendency variable was explained by the independent variables. When regression analysis removed the variance which was attributed to the four extraneous variables, 58% of the variance was accounted for by sex-role identity. Product-moment correlations also showed significant relationships between sex-role categories and achieving tendency.

The extraneous variables explained 14% of the variance with 8% attributed to marital status. The "single" marital status group (M_1), which accounted for 6% of the variance, also demonstrated a significant inverse relationship with achieving tendency (Table 7).

Research Question 2

The chi-square test for contingency tables was used to determine whether the frequencies of the nurse subjects falling in the four sex-role categories differed significantly from the frequencies in a normative sample of general college females (Table 8). No significant difference in sex-role identity was evidenced for the nurse sample and the female normative sample ($\chi^2 = 4.09, p > .05$).

Table 7
Multiple Regression Summary of Achieving Tendency
with Selected Independent Variables

Variables	Multiple R	R Square	R Square Change	Simple R
Age	.07106	.00505	.00505	.07106
M ₁	.25643	.06576	.06071	-.25643*
M ₂	.28114	.07904	.01328	.08008
M ₃	.30147	.09089	.01185	.21907
N ₁	.31437	.09883	.00794	-.03404
N ₂	.32701	.10694	.00811	-.09810
N ₃	.33304	.11092	.00398	.08223
R ₁	.34695	.12038	.00946	.10230
R ₂	.37056	.13732	.01694	.07809
S ₁ (Masculine)	.59441	.35333	.21601	.51130***
S ₂ (Feminine)	.62905	.39570	.04237	-.37713**
S ₃ (Androgynous)	.84470 ^a	.71353	.31782	.32612**
S ₄ (Undifferentiated)				-.58240***

M = marital status
N = nursing specialization area
R = nursing role area
S = sex-role identity

^aF (12,60) = 12.45356, p < .001

*p < .05
**p < .01
***p < .001

Note: The significant values of F and of the simple R were obtained from Polit and Hungler, 1978, p. 650, Table B, and p. 652, Table D.

Table 8

Chi-Square Analysis Comparing Sex-Role Identity of Nurse Sample with a Normative Sample

Groups/Sex-Role	Feminine fo/fE	Undifferentiated fo/fE	Androgynous fo/fE	Masculine fo/fE
Nurse Sample (N = 73)	22/24	10/14	23/22	18/13
Normative Sample ^a (N = 290)	99/97	59/55	85/86	47/52

$\chi^2 = 4.09$; $df = 3$; $p > .05$

^aFrom Bem and Watson, 1976, p. 20, Table 1A

fo = observed frequency for a cell

fE = expected frequency for a cell

Note: Distribution of χ^2 probability from Polit and Hungler, 1978, p. 651, Table C.

Research Question 3

The one sample z test was used to test the significance of the difference between the achieving tendency means of the nurse sample and a female normative sample. Means and standard deviations of the two groups are presented in Table 9. Using a one-tailed test, a significant difference in achieving tendency scores was found for the two groups ($z = 6.55, p < .001$).

Table 9

Achieving Tendency Scores for Female Nurse Sample
and a Female Normative Sample

Groups	Achieving Tendency	
	\bar{x}	SD
Nurse Sample (N = 73)	73.6027	28.2375
Normative Sample ^a (N = 66)	46	36

$z = 6.55; p < .001$

^aFrom Mehrabian and Bank, 1978, pp. 477-478.

Note: The critical value of z was obtained from Champion, 1970, p. 263, Table A.3.

Summary of Findings

The findings indicate that the levels of endorsement of masculinity and social desirability were positively related to the achieving tendencies of female graduate nursing students. Both the masculinity and femininity scores were correlated with the social desirability scores. The femininity score did not correlate significantly with the masculinity or achieving tendency scores.

A significant inverse relationship was found between the "single" marital status group and achieving tendency. The masculine and androgynous sex-role categories were positively related to achieving tendency, while the feminine and undifferentiated groups were negatively related to achieving tendency. In summary, the data supported a significant relationship between sex-role identity and achieving tendency.

The female nurse sample did not differ significantly from general college females in sex-role identity. A significant difference in achieving tendencies was found for the nurse sample and another female normative sample.

CHAPTER 5

SUMMARY OF THE STUDY

The major purpose of this study was to investigate the relationship between sex-role identity and achievement motivation in a sample of female graduate nursing students. A general and collective conceptualization of role theory and expectancy-value theory of motivation served as the framework for this study.

Summary

A nonexperimental design was employed in this descriptive and multiple correlational study. The data were collected from 73 volunteer subjects enrolled in a Master's degree program in nursing at one large southwestern, state-supported university. The subjects completed three instruments in natural classroom settings under the direction of the investigator during a one-week period of the Spring semester 1981. The three instruments consisted of a Demographic Data Sheet, the Bem Sex-Role Inventory (BSRI) (Bem, 1974), and the Mehrabian Achievement Tendency Scale (Mehrabian & Bank, 1978).

The Demographic Data Sheet collected data on the following variables: age, marital status, religious

preference, racial-ethnic background, highest educational preparation, nursing specialization area, nursing role area, and primary occupation of parents. Based on the three separate scales contained in the BSRI, Masculinity, Femininity, and Social Desirability scores were obtained for each subject. The Masculinity and Femininity scores of each subject were compared with the median scores of a normative sample (Bem, 1979) which served as the basis for sex-role classification as Masculine, Feminine, Androgynous, or Undifferentiated. Each subject's achieving tendency score was computed and functioned as the dependent variable for this study.

Discussion of Findings

Sex-Role Identity

It has been hypothesized that the degree to which a woman regards herself as instrumental (productive), expressive (nurturant), and committed to a specific set of values and goals influences her occupational choice and the extent to which she perceives her role in career terms (White, 1971). The assumption that women select a strongly sex-typed profession such as nursing because of its high level of congruence with nurturant behavior patterns can be disputed on several grounds. The traditionally ascribed

masculine attributes, such as independence, competitiveness, and decision making, are equally important to a profession which is currently striving for autonomy in the area of its own practice (Webb & Herman, 1978). A profession which is also currently redefining its image and roles (Stromborg, 1976) needs highly competent members who can function in diverse roles.

Similar to Till's (1980) and Ziegler's (1977) findings, the nurses in the present study did not differ in contemporary sex-role categories when compared to a normative sample of general college women. Along with these findings it may be recalled that the graduate students' mean scores on masculinity and femininity were similar, indicating that as a combined group these subjects endorsed equally both masculine and feminine traits. In essence, the assumption that nurses are stereotypically feminine as compared to other female college samples (Vandever, 1978) can be disputed. However, further comparisons with several normative samples would be helpful in reinforcing this conclusion.

Achieving Tendency

The finding that graduate nursing students scored higher in achieving tendency than a normative sample of undergraduate students must be interpreted with great care, considering the diversity of the two samples. Perhaps the

greatest adherence to an achievement-motivation model would be found with students in graduate school. The student who persists in a career by being in graduate school reflects to some degree an achievement-oriented pattern.

Using the Mehrabian Achieving Tendency Scale for females and the achievement scale of the Personality Research Form (PRF) A, Webb and Herman (1978) found no significant difference between the mean score on achievement for first year female nursing students and normative samples of women. The normative samples referred to were college women, except for the norm used for the Mehrabian Scale. No other demographic information was given for the normative samples.

More realistic comparisons with normative college samples can be made when researchers report not only the sampling technique employed, but also descriptive information about the subjects, for example, age, class rank, and subject major. Mehrabian and Bank (1975) also suggested that investigators of achieving tendency should report means and score ranges of individual groups.

Relationship Between Sex-Role Identity and Achievement Motivation

This study demonstrated that the achievement motivation of female graduate nursing students was influenced by their

sex-role orientation. While the relationship between sex-role identity and achievement motivation has been supported by several other studies (Alper, 1973, 1974; Bedeian & Zarra, 1977; Gralewski & Rodgon, 1980; Major, 1979; Marshall & Wijting, 1980; Teglassi, 1978), two important questions remain to be answered. Does a traditional or feminine role orientation inhibit achievement motivation? This question is consistent with an expectancy-value framework which suggests that achievement values are nonacceptable within the feminine role and may cause negative societal consequences and role conflict. Secondly, and perhaps more importantly, is it the presence of masculine attributes that contributes to achievement behavior, regardless of the level of endorsement of feminine characteristics? On the basis of several past studies, however, these questions could not be answered.

A number of investigators have described a subject's sex role in bipolar terms: high feminine or low feminine (Alper, 1973, 1974); traditional or nontraditional (Bedeian & Zarra, 1977; Teglassi, 1978). This sex-role dichotomy precludes the feasibility that masculinity and femininity are independent dimensions and further negates the likelihood that the combination of both traits might exist in one person (Bem, 1974). Furthermore, in the past studies, the

androgynous and undifferentiated persons were most likely classified as either masculine or feminine, thus confusing the findings and denying the distinction between all four. The assumption that traditional or feminine women do not strive to achieve directs the reader to the misleading conclusion that it is femininity that restrains achievement-oriented behaviors.

The Bem Sex-Role Inventory (BSRI), employed in the present study, provides separate Femininity and Masculinity scale scores which have been shown to be empirically independent of each other (Bem, 1974). The essential unrelatedness of the Masculinity and Femininity Scales is an important distinction to make when one considers that the subjects' sex-role identities were determined by the scores from these two independent scales. Thus, the high level of endorsement of masculine traits does not preclude a similar endorsement of feminine traits, as in the case of the androgynous subject. Further support for the independent nature of the masculinity and femininity scales was demonstrated in the present study. The feminine score did not correlate significantly with the masculine score, nor to the achieving tendency score for that matter. However, when one recalls the interaction of the feminine and undifferentiated sex-role categories with achieving tendency, a negative

correlation was found. The feminine and undifferentiated groups were similar only in their low level of endorsement of masculine traits. Moreover, a high level of endorsement of masculine characteristics, as well as a masculine and androgynous sex-role, was positively associated with achieving tendencies. It is probably the adoption of masculine characteristics, not the rejection or endorsement of femininity, that influences an individual's achieving tendency.

The subjects that embraced a high level of masculine traits in their sex-role descriptions also scored higher in achievement motivation. This is understandable considering the composite of esteemed "masculine" traits that Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz (1972) described as forming a "competency" cluster are similar to many of the masculine attributes described on the BSRI. A belief in one's own competence has traditionally been associated with achievement-oriented behaviors. Conversely, a negative self-concept tends to confine an individual's achievement behaviors.

Given the finding that in achievement related areas, women hold negative self-concepts relative to men (Frieze, 1975; Maccoby & Jacklin, 1974; Parsons, Ruble, Hodges, & Small, 1976), it is plausible to assume that a woman's self-esteem may inhibit her from pursuing achievement-

directed behaviors. Regardless of sex, however, low self-esteem would be a barrier to occupational or academic success. While self-concept appears to be important to one's achievement orientation, it is also strongly related to one's sex-role. Several investigators found significantly less positive scores on self-esteem for undifferentiated subjects (Bem, 1977; Erdwins, Small, & Gross, 1980; Spence, Helmreich, & Stapp, 1975). Although the present study did not measure self-esteem, the undifferentiated subject scored significantly lower on achieving tendency than any of the other sex-role groups. It appears then that low self-esteem is not only a barrier to achievement effort, but is also associated with a person's sex-role identity.

Conclusions

The major findings of this study support the following conclusions:

1. Female graduate nursing students who endorse a high level of masculine characteristics in their sex-role descriptions are higher in achievement motivation than students who reject masculine traits.
2. The rejection or the endorsement of feminine traits does not influence a woman's achievement motivation.

3. Female graduate nursing students do not differ in a four-fold classification of sex-role identity from general college females.

4. Female students who are enrolled in a Master's program in nursing are more highly motivated to achieve than are female undergraduate students who are enrolled in a general college program.

Implications

The implications for nursing that may be drawn from this study are the following:

1. Graduate nursing students who are likely to possess high levels of achieving tendency must continue to demonstrate these achievement-directed behaviors to the public in order to correct the misconceptions about the stereotyped image of nurses.

2. Nurses who value "competency" traits in their own self-descriptions must act as role models not only to future recruits, but also to other practitioners.

3. Leaders in the profession need to demonstrate that "nurturant" attributes are also important to nursing and do not necessarily interfere with achievement behavior.

Recommendations for Further Study

Areas for further research which can be derived from this study are the following:

1. Future studies measuring achievement orientation in women should include both a behavioral measure of achievement performance and a psychometric measure of achievement motivation.

2. Other personality variables such as self-esteem, anxiety about failure, fear of success, affiliation need, and locus of control need investigation to determine their impact on women's achievement-striving behavior.

3. Additional investigations of sex-role identity of nurses should include larger and more diverse samples, for example, males, educators, administrators, practitioners, and researchers.

4. Although nursing specialization and role area had no effect on the achieving tendencies of this sample, a more equal distribution of these areas in a larger sample may detect differences.

APPENDIXES

APPENDIX A: Human Research Review Committee Report
Agency Permission for Conducting Study
Consent to Act as a Subject for
Research and Investigation

TEXAS WOMAN'S UNIVERSITY
HOUSTON CAMPUS
HUMAN RESEARCH REVIEW COMMITTEE
REPORT

STUDENT'S NAME Gail Fronia Graham

PROPOSAL TITLE A Multiple Correlational Study of Sex-Role Categories and
Achievement Motivation in Female Graduate Nursing Students

COMMENTS: _____

DATE: February 2, 1981

Janet Robertson
~~Disapprove~~ Approve

Susan L. Garner
~~Disapprove~~ Approve

R. P. Bennett
~~Disapprove~~ Approve

Olga Harmon
~~Disapprove~~ Approve

Lolay Myers

TEXAS WOMAN'S UNIVERSITY

CONSENT TO ACT AS A SUBJECT FOR RESEARCH
AND INVESTIGATION

I hereby authorize Gail Graham to perform the following investigation and to monitor the procedure--the completion of three written instruments which involves:

1. Providing general background information about myself.
2. Reviewing 60 personality characteristics and using those characteristics to describe myself on a scale from 1 to 7 (from Never or Almost Never True to Always or Almost Always True).
3. Reviewing 38 statements and indicating the degree of my agreement or disagreement with each of the statements on a scale from -4 (Very Strong Disagreement) to 0 (Neither Agreement nor Disagreement) to +4 (Very Strong Agreement).

I understand that there are no right or wrong answers and that my individual results will not be identified. The procedure above has been explained to me by Gail Graham, the research investigator.

I understand that possible risks from this investigation may include discomfort or dissatisfaction as a result of looking at my personality characteristics and self-ratings of 38 statements and the possibility of public embarrassment from improper release of data.

I understand that this investigation may be beneficial to me in that I may learn more about myself.

I understand that no medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

An offer to answer all of my questions regarding the study has been made. I understand that I may terminate my participation in the study at any time.

Subject's Signature

Date

APPENDIX B: Demographic Data Sheet, Tool 1
Bem-Sex Role Inventory, Tool 2
Mehrabian Measure of Achieving
Tendency, Tool 3

INSTRUCTIONS

This study involves the use of three instruments: a background information sheet, a survey of personality characteristics, and a self-rating measure of 38 statements. Please follow the directions given with each tool. In order to maintain anonymous and confidential test data, personal identification is not desired. Please do not write your name on any of these instruments.

Tool 1: Demographic Data Sheet .

DEMOGRAPHIC DATA SHEET

Please check or provide the following information. Give only one answer with each item.

1. Age _____
2. Sex _____
3. Marital status:
 - a. Single _____
 - b. Married _____
 - c. Divorced _____
 - d. Separated _____
 - e. Widowed _____
4. Religious preference:
 - a. Catholic _____
 - b. Jewish _____
 - c. Protestant _____
 - d. Other _____
5. Racial-ethnic background:
 - a. American Indian _____
 - b. Mexican American _____
 - c. Oriental _____
 - d. Black _____
 - e. White _____
 - f. Other _____
6. Highest educational preparation:
 - a. Baccalaureate in Nursing _____
 - b. Baccalaureate in other field _____
 - c. Master's _____
 - d. Other, specify _____
7. Nursing specialization area:
 - a. Community health
 - b. Maternal-child health _____
 - c. Medical-surgical
 - d. Psychiatric-mental health _____
8. Nursing role area:
 - a. Teaching _____
 - b. Administration
 - c. Clinical practice
 - d. Research _____
9. What is/has been your mother's primary occupation?

10. What is/has been your father's primary occupation?

Tool 2: Bem-Sex Role Inventory

BEM-SEX ROLE INVENTORY

On the following page, you will find listed a number of personality characteristics. Please use those characteristics to describe yourself, that is, please indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristic unmarked.

Example: Sly

Write a 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Write a 2 if it is USUALLY NOT TRUE that you are sly.

Write a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Write a 4 if it is OCCASIONALLY TRUE that you are sly.

Write a 5 if it is OFTEN TRUE that you are sly.

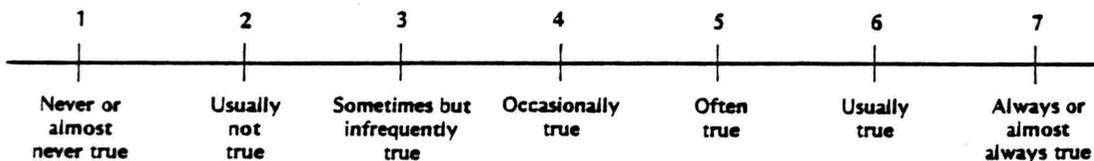
Write a 6 if it is USUALLY TRUE that you are sly.

Write a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is SOMETIMES BUT INFREQUENTLY TRUE that you are "sly," NEVER OR ALMOST NEVER TRUE that you are "malicious," ALWAYS OR ALMOST ALWAYS TRUE that you are "irresponsible," and OFTEN TRUE that you are "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5



Defend my own beliefs	
Affectionate	
Conscientious	
Independent	
Sympathetic	
Moody	
Assertive	
Sensitive to needs of others	
Reliable	
Strong personality	
Understanding	
Jealous	
Forceful	
Compassionate	
Truthful	
Have leadership abilities	
Eager to soothe hurt feelings	
Secretive	
Willing to take risks	
Warm	

Adaptable	
Dominant	
Tender	
Conceited	
Willing to take a stand	
Love children	
Tactful	
Aggressive	
Gentle	
Conventional	
Self-reliant	
Yielding	
Helpful	
Athletic	
Cheerful	
Unsystematic	
Analytical	
Shy	
Inefficient	
Make decisions easily	

Flatterable	
Theatrical	
Self-sufficient	
Loyal	
Happy	
Individualistic	
Soft-spoken	
Unpredictable	
Masculine	
Gullible	
Solemn	
Competitive	
Childlike	
Likable	
Ambitious	
Do not use harsh language	
Sincere	
Act as a leader	
Feminine	
Friendly	

Tool 3: Mehrabian Measure of
Achieving Tendency

MEHRABIAN MEASURE OF ACHIEVING TENDENCY

Please use the following scale to indicate the degree of your agreement or disagreement with each of the statements on the following pages. Record your answers in the spaces provided below.

- +4 = very strong agreement
- +3 = strong agreement
- +2 = moderate agreement
- +1 = slight agreement
- 0 = neither agreement nor disagreement
- 1 = slight disagreement
- 2 = moderate disagreement
- 3 = strong disagreement
- 4 = very strong disagreement

- | | | | | |
|--------|---------|---------|---------|---------|
| 1. ___ | 9. ___ | 17. ___ | 25. ___ | 33. ___ |
| 2. ___ | 10. ___ | 18. ___ | 26. ___ | 34. ___ |
| 3. ___ | 11. ___ | 19. ___ | 27. ___ | 35. ___ |
| 4. ___ | 12. ___ | 20. ___ | 28. ___ | 36. ___ |
| 5. ___ | 13. ___ | 21. ___ | 29. ___ | 37. ___ |
| 6. ___ | 14. ___ | 22. ___ | 30. ___ | 38. ___ |
| 7. ___ | 15. ___ | 23. ___ | 31. ___ | |
| 8. ___ | 16. ___ | 24. ___ | 32. ___ | |

- + 1. I usually end up carrying out the things I plan at work.
- 2. I have difficulty working in a new and unfamiliar situation.
- + 3. I am very optimistic about my work career.
- 4. I don't usually tackle problems that others have found to be difficult.
- 5. I am hesitant about making important decisions at work.
- 6. The idea of struggling my way to the top does not appeal to me.
- + 7. I would prefer a job which is important, difficult, and involves a 50% chance of failure to a job which is somewhat important but not difficult.
- + 8. I am usually tempted to take on more responsibilities than a job originally entails.
- 9. The thought of having to take on a new job would bother me.
- + 10. I find it especially satisfying to complete an important job that required a lot of effort.
- 11. I don't work well under pressure.
- + 12. I believe that if I try hard enough, I will be able to reach my goals in life.
- + 13. I take pride in my work.
- 14. Learning new skills doesn't excite me very much.
- 15. I only work as hard as I have to.
- + 16. I tend to set very difficult goals for myself.
- 17. I like tasks that require little effort once I've learned them.

- + 18. I am ambitious.
- 19. I prefer small daily projects to long-term ones.
- + 20. I really enjoy a job that involves overcoming obstacles.
- + 21. I appreciate opportunities to discover my own strengths and weaknesses.
- 22. I find little satisfaction in working hard.
- 23. These days, I see little chance for promotion on the job unless a person gets a break.
- + 24. Solving a simple problem is not as satisfying to me as trying a difficult one.
- + 25. I prefer a job which requires original thinking.
- 26. I like a job which doesn't require my making risky decisions.
- 27. I only work because I have to.
- + 28. I often succeed in reaching important goals I've set for myself.
- 29. I feel relief rather than satisfaction when I have finally completed a difficult task.
- + 30. I perform best in competitive situations.
- 31. Constant work toward goals is not my idea of a rewarding life.
- + 32. I more often attempt difficult tasks that I am not sure I can do than easier tasks I believe I can do.
- + 33. I am not satisfied unless I excel in my work.
- 34. I don't like to have the responsibility of handling a difficult situation.
- + 35. I prefer my work to be filled with challenging tasks.

- + 36. When I do a job, I set high standards for myself regardless of what others do.
- 37. I try to anticipate and avoid situations where there is a moderate chance of failure.
- 38. I would rather do something at which I feel confident and relaxed than something which is challenging and difficult.

APPENDIX C: Masculinity, Femininity, and Social
Desirability Scales of the BSRI

Table 1

Items on the Masculinity, Femininity, and Social Desirability Scales of the BSRI

Masculine Items	Feminine Items	Neutral Items
Act as a leader	Affectionate	Adaptable
Aggressive	Cheerful	Conceited
Ambitious	Childlike	Conscientious
Analytical	Compassionate	Conventional
Assertive	Do not use harsh language	Friendly
Athletic	Eager to soothe hurt feelings	Happy
Competitive	Feminine	Helpful
Defend my own beliefs	Flatterable	Inefficient
Dominant	Gentle	Jealous
Forceful	Gullible	Likable
Have leadership abilities	Love children	Moody
Independent	Loyal	Reliable
Individualistic	Sensitive to needs of others	Secretive
Make decisions easily	Shy	Sincere
Masculine	Soft-spoken	Solemn
Self-reliant	Sympathetic	Tactful
Self-sufficient	Tender	Theatrical
Strong personality	Understanding	Truthful
Willing to take a stand	Warm	Unpredictable
Willing to take risks	Yielding	Unsystematic

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