SEX-ROLE ORIENTATION, FEAR OF SUCCESS, AND COMPETITIVE SPORT PERFORMANCE OF HIGH SCHOOL ATHLETES

by

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The purpose of this study was to investigate the competitive sport performance under three conditions: alone, against a same-sex player, and against an opposite-sex player of male and female high school varsity athletes with differing sex-role orientation, and fear of success level. Sex-role orientation was measured by the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1975) and fear of success was measured by the Fear of Success Scale (Zuckerman & Allison, 1976). Competitive sport performance was assessed by a timed basketball shooting test.

Participants in the study were 71 female and 62 male athletes who were members of a 1977-78 high school varsity basketball team in Guilford County, North Carolina. Each subject completed the two self-report measures (PAQ and FOSS) and competed in the timed basketball shooting test under the three conditions. Two trials were administered under each condition. Time in seconds was averaged for the subject's competitive performance score in each condition.

Sex-role orientation classifications, as measured by the self-reported PAQ, resulted in 32% of the male athletes being categorized as androgynous, 27% masculine, 24% undifferentiated, and 14% feminine. Female sex-role orientation classifications resulted in 34% of the girls being classified as feminine, 24% androgynous and undifferentiated, and 16% masculine. One-way analysis of variance was utilized to assess whether male or female athlete's sex-role orientation, high or low

fear of success level, and competitive sport performance under the three conditions: alone, against same-sex player, and against opposite-sex player differed.

Results of the analysis of variance revealed no significant differences for male or female athletes sex-role orientation, level of fear of success, or competitive sport performance tests under the three conditions. Additionally, Spearman correlation coefficients were computed for sex-role orientation and fear of success level with the competitive sport performances under the three conditions. Although some significant differences were found data analysis failed to yield conclusive results.

It was concluded that the athlete's competitive sport performance under the three testing conditions — alone, against same-sex player, and against opposite-sex player--was consistent. Nor did the three competitive sport conditions differ significantly according to the sex-role orientation classification or fear of success level of the subjects as assessed by self-report measures. Additional evidence is needed to corroborate self-report data with behavioral data in the areas of sex-role orientation classifications and fear of success levels.

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CHAPTER I

INTRODUCTION

Since sport is recognized as a traditionally male pursuit, the social mores of masculine-feminine sex roles tend not to encourage sport competition for the female. Displaying physical prowess through sport is considered by society to be unfeminine. And it has been suggested that the female athlete experiences social conflict between achieving in sport and fulfilling the appropriate feminine sex role (Monk, 1976). In other words, femininity and competitive sport performance are frequently viewed as incompatible.

Traditional conceptualization of masculinity and femininity has been in terms of stereotypical role behaviors associated with being male or with being female. This approach tends to locate most males at one end of a continuum on a cluster of attributes differentiating the sexes while most females tend to be located at the opposite end. The assumption is that to be male is to be unlike female and to be female is to be unlike male. Another underlying assumption is that masculinity represents what males do and are, while femininity represents what females do and are.

Our society places great emphasis on sex-role differentiation to ensure that each sex learns the expected behaviors and attitudes which are considered appropriate to his or her gender. Males, then, are expected to display behaviors such as independence, assertiveness,

and competitiveness, while females are expected to display the opposite or such types of behaviors as dependency, nonassertiveness, and passiveness. These dispositions are generally acknowledged as the way males differ from females. However, continued subscription to this type of bipolar definition of masculinity and femininity perpetuates stereotyping or categorizing the sexes according to their differences rather than their possible similarities. In addition, this approach tends to disguise possible multidimensions of the masculinity and femininity construct (Constantinople, 1973).

Recent researchers (Block, 1973; Bem, 1974; Spence, Helmreich, & Stapp, 1975) have challenged the conception of masculinity and femininity as representing bipolar opposites on a single continuum. Their empirical investigations support another view, that of masculinity and femininity being independent dimensions of varying degrees in the same person. This approach allows an individual to endorse both masculine and feminine attributes. Spence et al. (1975) adopted a dualistic approach, suggesting that masculinity and femininity are separate dimensions in the same individual. The authors indicate that subscribing to one dimension does not logically or psychologically preclude subscribing to the other dimension. Bem (1977) refers to this as "psychological androgyny" and further states:

> . . . it is possible for an individual to be both assertive and compassionate, both instrumental and expressive, both masculine and feminine, depending upon the situational appropriateness of these various modalities . . . (p. 196).

Findings indicate that a more androgynous view of oneself is accompanied by having a higher level of self-esteem (Spence et al., 1975), by being better adjusted (Heilbrun, 1976), and by displaying fewer dysfunctional patterns of behavior when in a cross-sex situation (Bem & Lenny, 1976). Helmreich and Spence (1977a) found:

> . . . data suggest that masculinity and femininity are both related to a number of desirable attributes and behaviors in addition to self-esteem, giving the androgynous individual frequent advantage over those falling in other categories (p. 41).

Sport has traditionally been the prerogative of the male, and consequently, the physical and behavioral demands associated with the competitive sport profile closely and positively align with masculine behaviors. The concept of an androgynous sex-role orientation may be a significant factor in helping to explain the personal attributes of females who elect to participate in competitive sport.

Research previously examining the descriptors of masculinity and femininity for the female athlete utilized bipolar assessments (Brown, 1965; Hall, 1972). On these instruments, female athletes tend to fall more toward the masculine end of the continuum than do female non-athletes. Although there is some evidence indicating female athletes do not differ from female non-athletes in how they perceive their feminine role (Hall, 1972), their involvement in competitive sport is still associated with ". . . significantly lower and fewer 'feminine' scores and higher and more 'masculine' scores than other women" (Hall, 1977, p. 46). Helmreich and Spence (1977a) suggest:

> . . . that rather than suffering a deficit of femininity, high achieving women (at least in athletics and science) are more likely than their male counterparts to possess both masculine and feminine attributes (p. 42).

Competitive sports, then, may represent an opportunity to participate for the achievement oriented female who has an androgynous sex-role orientation. Stein and Bailey (1973) indicate that:

> Some of the personality characteristics associated with achievement behavior such as independence, assertiveness, competitiveness, and belief in one's own competence are antagonistic to cultural demands on females for sex-role-appropriate behavior (p. 258).

As these achievement behaviors are considered important in competitive athletic performance, female athletes may not perceive them as being antagonistic to their own sex-role behavior.

When examining the achievement motives of women in competition, Horner (1968) postulated that women have a stable dispositional motive to avoid success which is aroused in achievement-oriented situations. This "fear of success" motive impairs the female's performance because she expects such negative consequences from achieving success as loss of femininity or social rejection. Recent research (Hoffman, 1974; Romer, 1975) suggests that this concept may also have relevance for the male although it has not been extensively studied.

Horner (1968) notes that the motive to avoid success might be expressed in situations where success is regarded as sex-role inappropriate. If fear of success does occur in sex-role inappropriate situations, the female athlete would be expected to express a higher level of this fear than the male athlete because she is competing in an enterprise traditionally recognized as male.

Little, if any, research is available on the masculinity and femininity attributes of the male athlete. It is assumed that masculinity and sport are positively related; therefore, males in sport are masculine. This assumption negates examining sport from the specific behavioral demands of the competitive situation. It may be that athletes, male and female, who compete in sport are more alike than different. Also, it may be that the behavioral demands associated with specific competitive sports attract individuals who are less rigidly sex-typed than previously assumed.

Since the female athlete is competing in an arena recognized as traditionally as male, the question may be raised as to whether or not her sex-role orientation is similar to that of the male athlete. An additional question may be raised as to whether or not sex-role orientation is related to one's level of fear of success as suggested by Horner's research. If so, will sex-role orientation be a factor in the athlete's fear of success level and competitive sport performance? This study examined sex-role orientation, level of fear of success, and competitive sport performance of male and female athletes.

Statement of the Problem

The purpose of this study was to investigate the competitive sport performance under three conditions: alone, against a same-sex player, and against an opposite-sex player of male and female high school varsity athletes with differing sex-role orientation, and fear

of success level. More specifically, this study examined the following questions:

1. What is the sex-role orientation of male and female athletes?

2. Does the high school male athlete's competitive sport performance under three conditions -- alone, against a same-sex player, and against an opposite-sex player--differ by sex-role orientation or fear of success level?

3. Does the high school female athlete's competitive sport performance under three conditions -- alone, against a same-sex player, and against an opposite-sex player--differ by sex-role orientation or fear of success level?

4. What relationships, if any, are there among an athlete's sex-role orientation, fear of success level, and competitive sport performance under the three conditions of alone, against a same-sex player, and against an opposite-sex player?

Hypotheses

To fulfill the purposes of this study, the following hypotheses were tested:

1. No difference exists between the male athlete's competitive sport performance under three conditions -- alone, against a same-sex player, and against an opposite sex player--with his sex-role orientation and fear of success level.

2. No difference exists between the female athlete's competitive sport performance under three conditions -- alone, against a same-sex player, and against an opposite-sex player--with her sex-role orientation and fear of success level.

3. No relationships exist among male and female athletes' sex-role orientation, fear of success level, and competitive sport performance under three conditions: alone, against a same-sex player, and against an opposite-sex player.

Definition of Terms

The terms used in this study are defined as follows:

Competitive Sport Performance Test. A basketball shooting test in which the subject stands behind the foul line on a regulation basketball court. On signal to begin, the subject shoots any type of shot he or she desires, runs and retrieves the basketball and continues to shoot until twenty (20) baskets have been made. The subject's score is recorded as the time it takes to successfully complete the test and return to the foul line with the basketball.

Fear of Success. A motive to avoid success; a disposition to become anxious in achievement-oriented situations because of expectations of negative consequences, loss of femininity or social rejection (Horner, 1968). Based on the assumption that success in competitive achievement situations is more consistent with the masculine role, fear of success is more common in women than men (Horner, 1974).

Fear of Success Levels. Scoring above the median (high) or below the median (low) on the Fear of Success Scale (Zuckerman & Allison, 1976).

Female Athlete. Selected females who were members of a 1977-78 high school varsity basketball team in Guilford County, North Carolina.

Male Athlete. Selected males who were members of a 1977-78 high school varsity basketball team in Guilford County, North Carolina.

Sex-role Orientation. A conception of the psychological aspects of the degrees of masculinity and femininity that characterize an individual as being either masculine, feminine, androgynous or undifferentiated:

a. Masculine. Possessing socially desirable characteristics, a greater portion of which are most frequently associated with the male sex (Spence et al., 1975).

b. Feminine. Possessing socially desirable characteristics, a greater portion of which are most frequently associated with the female sex (Spence et al., 1975).

c. Androgynous. Possessing high proportion of both masculine and feminine socially desirable characteristics (Spence et al., 1975).

d. Undifferentiated. Possessing low proportions of both masculine and feminine characteristics (Spence et al., 1975).

Assumptions Underlying the Research

The following assumptions were made in reference to the study:

1. Degrees of masculinity and femininity can be measured in an individual.

2. The three competitive performance conditions provide a competitive situation in which the subject competes at his or her preferred performance level.

Scope of the Study

The data were collected during the months of November and December, 1977. Subjects for the study were 133 male and female high school varsity basketball players who were members of Guilford County High School basketball teams, Guilford County, North Carolina. Consent for the investigation was obtained from the Associate Superintendent of Schools for the Guilford County school system, principals, and boys' and girls' basketball coaches at the participating high schools, and subjects who signed the informed consent form.

The independent variable in the study was sex-role orientation which was characterized by four classifications: androgynous, feminine, masculine, and undifferentiated. Dependent variables were fear of success level of high or low and competitive sport performance test under the three conditions: alone, against same sex, and against opposite sex.

Significance of the Study

Research to date has given very limited attention to the sex-role orientation of athletes. It is assumed that individuals who participate in competitive sport are masculine because the behavioral demands of sport align more closely with masculinity than with

femininity. This association of sport with masculine attributes has been further complicated by the assessment procedure. Masculinity and femininity have been measured on a bipolar continuum; thus, subscribing to masculinity precludes subscribing to femininity. Consequently, the female athlete is left with little choice when assessing her competitive sport behavior. On the other hand, the male athlete may experience a similar stereotypical assumption regarding his masculinity and sport performance.

Sex-role orientation or how the individual perceives his or her personal attributes may be associated with a fear of success motive. Makosky (1976) notes that the literature on fear of success supports performance as being related to whether or not the individual perceives the situation as being sex-role appropriate. Competitive sport, then, provides an excellent setting in which to examine this concept. The behaviors important in competitive sport performance are not those traditionally associated with the feminine role but with the masculine role.

Past research on the fear of success motive has been limited to examining the individual's performance on cognitive tasks in competitive situations. Sport provides a more realistic setting for researching fear of success because the performance test aligns more closely with the behavioral demands of competitive sport.

This study examined the sex-role orientation of male and female athletes and their level of fear of success and competitive sport performance under three testing conditions: alone, against same-sex

player, and against opposite-sex player. The results of the study may have implications for (a) determining the sex-role orientation of male and female athletes, (b) clarifying the relationship between sex-role orientation, fear of success level, and competitive sport performance for athletes, and (c) examining fear of success level and competitive sport performance to see if these variables differ according to the sex-role orientation of male and female athletes.

CHAPTER II

REVIEW OF LITERATURE

The purpose of the study was to investigate male and female athletes' sex-role orientation, fear of success, and competitive sport performance under three testing conditions: alone, against same-sex player, and against opposite-sex player. Subsequently, the review of literature was organized into three major areas: (a) sex-role orientation, (b) fear of success, and (c) sex-role orientation and fear of success measures in competitive sport performance.

Sex-role Orientation

Psychological femininity and masculinity have usually been defined as the constellation of attributes characterizing males and females. Consequently, masculinity has represented the bipolar opposite of femininity. It followed then, that subscribing to femininity precluded subscribing to masculinity since biological gender was central to the interpretation of these constructs. Until recently, this approach has served as the theoretical undergirding for most masculinity and femininity research.

Constantinople (1973) addressed the issue of the measurement of masculinity and femininity and noted that these two concepts failed to represent common meaning in the psychologist's vocabulary. She pointed out that the masculinity and femininity construct contained two assumptions: bipolarity and unidimensionality. Available

research, according to Constantinople, discounted continued subscription to the construct's use as being only bipolar. Instead, evidence supported separate masculinity and femininity dimensions in each individual.

Constantinople's conclusions were similar to those of Jenkins and Vroegh (1969) and Bott (1970) in that their findings also failed to support continued quantification of masculinity and femininity on a single continuum. They stated empirical tests seemed warranted in order to assess the possible dimensionality of the two constructs.

Bem (1974) was one of the first researchers to examine the masculinity and femininity construct as two separate dimensions embodied in the same individual which she described as "psychological androgyny." In defining this combination of attributes, Bem incorporated both Parsons' (Parsons & Bales, 1955) and Bakan's (1966) role analysis. Parsons defined sex-roles in accordance with their biological function which he classified as instrumental or expressive. Males assumed an instrumental role oriented toward external functions of the family while females were oriented toward an expressive role or internal functions of the family. Thus Parsons explained:

> . . . fundamental explanation of the allocation of the roles between the biological sexes lies in the fact that the bearing and early nursing of children establish a strong presumptive primacy of the relation of mother to the small child and this in turn establishes a presumption that the man, who is exempted from the biological functions, should specialize in the alternative instrumental direction (Parsons & Bales, 1955, p. 23).

Bakan (1966) suggested that masculinity and femininity were characterized by agency and communion, fundamental modalities

common to all living forms. Agency represented the individuality of the organism and was manifested in self-protection, self-assertion, and self-expansion. Communion represented an individual's participation in a larger organism to which he or she belonged. Communion was manifested in the sense of being at one with other organisms and according to Bakan, "the moral imperative is to mitigate agency with communion" (p. 14).

Bakan's writings concerning sex-role definition differed from Parsons' in that agency, associated with masculinity, and communion, associated with femininity, were viewed as contributing toward the balance and integration of an individual. Parsons' role definition focused on biological function as the primary explanation as to whether one assumed an instrumental or expressive role. Utilizing components of both definitions, Bem (1976) predicted psychological androgyny:

> . . . on the assumption that it is possible, in principle, for an individual to be both masculine and feminine, both instrumental and expressive, both agentic and communal, depending upon the situational appropriateness of these various modalities; and even for an individual to blend these complementary modalities in a single act . . . (p. 2).

Bem (1975) noted that an individual, in order to be a fully effective and functioning individual, must have masculinity and femininity tempered and integrated by each other.

To empirically test the concept of psychological androgyny, Bem constructed a paper-and-pencil instrument, Bem Sex-Role Inventory or BRSI, which distinguished androgynous individuals from individuals

who have more sex-typed self-concepts--masculine or feminine. In this instrument, masculinity and femininity represented positive domains of behavior with orthogonal dimensions instead of bipolar ends of a single continuum.

Bem (1975) empirically tested her conception of "psychological androgyny" in a situation designed to evoke the stereotypically masculine behavior of independence. She used a standard conformity paradigm to test the hypothesis that masculine and androgynous subjects would remain more independent than feminine subjects in a social pressure situation. Following the same format, a second study was designed to examine the stereotypically feminine behavior of nurturance. This study tested the hypothesis that feminine and androgynous subjects would be more nurturant than masculine subjects.

Findings from both studies revealed that only the androgynous individuals displayed situation appropriate behavior. In other words, whether the situation called for masculine or feminine behaviors (independence or nurturance), the androgynous subjects responded accordingly. The non-androgynous subjects performed well only when the situation suggested behaviors which were congruent with their interpretation and definition of masculinity and femininity.

Similar findings were reported in two experiments involving the expressive domain researched by Bem, Martyna, and Watson (1976). In the first experiment, subjects were observed interacting with a human baby and in the second, subjects participated in a study in which they assumed the role of the listener in an acquaintance process. It was

concluded that feminine and androgynous subjects did not differ significantly from each other in their nurturant behavior; however, they did differ significantly from the masculine-typed subject. These findings were significant regardless of the sex of the individual.

Bem and Lenney (1976) used the Bem Sex-Role Inventory to examine whether or not masculine men and feminine women would actively avoid activities classified as stereotypically more appropriate for one sex than the other. In addition, the investigators examined subjects who participated in cross-sex activities to see whether or not discomfort was involved. They concluded that subjects, when asked to select and perform a series of paired activities for pay and were photographed while performing them, were more inclined to select sex appropriate activities and to avoid sex inappropriate activities than androgynous or sex-reversed subjects. This selection remained the same even when additional incentives were available if the subjects selected sex-inappropriate activities. These same subjects reported that engaging in cross-sex behavior caused them greater psychological discomfort as well as negative feelings about themselves. Bem and Lenney reasoned that sex-typing restricted an individual's behavior and might even be dysfunctional.

Another sex-role orientation scale was devised by Spence, Helmreich, and Stapp (1975). This scale also incorporated a dualistic conception of masculinity and femininity, including as the core properties Bakan's (1966) framework of agency and communion. The

Personal Attributes Scale was conceptually similar to that of Bem. It represented a self-report scale which determined four sex-role orientations: androgynous, feminine, masculine, and undifferentiated. When this scale was administered to a college sample, the correlation of the masculinity and femininity scales was significantly positive for both sexes. In view of these findings, the evidence refuted a bipolar interpretation of the two domains: masculinity and femininity.

Spence et al. (1975) also found that when the Personal Attributes Questionnaire was administered along with a measure of social esteem, college students classified as androgynous had higher self-esteem measures than did those of the other sex-role orientations. Second in self-esteem were those subjects classified as masculine followed by those classified as feminine and undifferentiated, respectively. The authors noted that feelings of self-esteem were in the predicted direction for masculinity and femininity. However, findings appeared to indicate femininity in males and masculinity in females violated ". . . the common assumption /that/ only sex appropriate behaviors and attributes are associated with indices of psychological well-being" (1977b, p. 7b).

In further examination of the sex-role orientation construct, Helmreich and Spence (1977a) administered the Personal Attributes Questionnaire to female varsity athletes and female scientists. When the two groups were compared to female college students, the largest sex-role orientation classification for the athletes and scientists was androgynous followed by masculine. The largest sex-role

orientation classification for the college female was feminine. The authors concluded that high-achieving women, athletes and scientists, were more likely than their male counterparts to subscribe to both masculine and feminine attributes. The largest number of males in the sample subscribed to masculine attributes followed by those categorized as androgynous.

Repeated administrations of the Personal Attributes Questionnaire to both high school and college populations have provided sex-role orientation classifications in all four categories: androgynous, masculine, feminine, and undifferentiated (Helmreich & Spence, 1977b). Additional research which has utilized the Personal Attributes Questionnaire can be found in the final section of the literature review.

The research by Bem et al. and Spence et al. has substantiated masculinity and femininity as an orthogonal construct, enabling individuals to incorporate both of these dimensions in their attribute descriptors. Data (Spence et al., 1975; Heilbrun, 1976; Orlofsky, 1977) have also supported that the sex-role orientation classification of "psychological androgyny" was associated with higher levels of self-esteem. Orlofsky (1977) suggested that cross-sex-typing or a masculine orientation appeared to have positive consequences for women in that it led to high self-esteem. The reverse was not true for the male with a feminine sex-role orientation.

Removal of the "either-or" conception of sex-role orientation has provided choice for the individual. Bem and Spence and Helmreich have

demonstrated that the sex-role orientation of an individual can be correlated with behavioral data. These data suggested that individuals who subscribed to an androgynous sex-role orientation classification had greater flexibility in their behavior than those who were sex-typed, cross-sex-typed, or undifferentiated.

Fear of Success

Psychologists have long been perplexed by the construct of achievement motivation and its implications for females. This quandary has existed partly because most of the achievement motivation research has been done on males and partly because research results for females have been confusing and contradictory. No systematic theory or consistent body of knowledge on achievement motivation and women existed until Horner's (1968) conceptualization of the motive to avoid success.

In an attempt to explain the basis of sex differences in earlier research on achievement motivation, Horner (1968) postulated a motive to avoid success. This motive, conceptualized within the expectancy-value theory of motivation, stated:

> Most women have a motive to avoid success, that is, a disposition to become anxious about achieving success because they expect negative consequences (such as social rejection and/or feelings of being unfeminine) as a result of succeeding (1972, p. 159).

The motive, according to Horner, was acquired early in life in combination with sex-role standards, was more characteristic of women than men, was more characteristic of high-achieving women than low-achieving women, and was more prevalent in competitive situations,

specifically with males, than noncompetitive situations. Differences in the motive to avoid success would not be manifested in behavior unless aroused by the expectancy that negative consequences would result from success.

To examine the motive to avoid success, Horner administered a type of Thematic Apperception Test and several achievement tests to 90 female and 88 male undergraduate students. In the verbal type of Thematic Apperception Test, each female subject was asked to respond to the lead: after first-term finals, Anne finds herself at the top of her medical-school class. Male subjects responded to the same cue with a male lead. The stories, written while the subjects were in a large, mixed-sex group, were coded according to the presence or absence of a fear of success motive.

Results from the verbal imagery cues showed that approximately 65.5% of the females wrote fear of success stories which reflected one of the following themes: conflict about success of their own sex, negative consequences of success for their own sex, refusal of responsibility for success of their own sex, denial of the success cue relevant to their own sex, and bizarre responses to the success cue. On the other hand, less than 10% of the males wrote fear of success stories when they responded to the male lead.

In order to clarify the effects of the motive to avoid success on performance, Horner randomly assigned the subjects to one of three experimental groups and administered achievement tests similar to those of the first testing session. One group worked alone in a

noncompetitive situation; one group competed with a member of the same sex; and one group competed against the opposite sex. Results substantiated the motive to avoid success. Females who had written fear of success stories had better performance scores on the achievement tasks in the alone situation. Conversely, females who had written stories which did not contain fear of success cues performed better in the competitive situation.

A final question posed to the subjects asked how important it was for the subjects to do well in the different testing situations. Low fear of success females did not differ significantly on the three testing situations; each situation was important. However, high fear of success females stated that it was more important for them to do well in the alone condition than in the competitive condition. From the results of this study, Horner concluded that females had higher fear of success than males and that fear of success acts as an inhibitor to performance in competitive situations. In further explanation of these findings, Horner noted:

> A complex relationship or interaction appears to exist between the girl's internal personality dispositions or motives and certain situational factors which determine the nature of the expectancy a girl has about the consequences of her actions and the value of these consequences to her in that situation. It is these latter factors which determine whether or not internalized dispositions will be aroused and therefore influence behavior (1970, p. 172).

Horner's research on the motive to avoid success attracted the attention of numerous researchers because it seemed to explain previously unsolved sex differences in achievement motivation data.

Since 1968 and her original study, the motive to avoid success has been extensively studied as a function of age, sex, and race and across a wide range of sex-appropriate and sex-inappropriate activities and situations. It was beyond the scope of this paper to review the entire compilation of literature pertaining to fear of success. Therefore, only research which has examined fear of success and sex-role orientation, and fear of success and performance will be included in this survey.

Fear of Success and Sex-role Orientation

Horner's research incorporated sex-role orientation as an integral component in the motive to avoid success. Although she did not utilize this specific terminology, her research clearly delineated a positive relationship between sex-role orientation and motive to avoid success:

> . . . most highly competent and otherwise achievement motivated young women, when faced with a conflict between their feminine image and expressing their competencies or developing their abilities and interests, adjust their behaviors to their internalized sex-role stereotypes (1972, p. 173).

Horner suggested this relationship in her original study when she reported that women who were high in fear of success tended to major in the humanities or traditional courses of study. On the other hand, women who were low in fear of success tended to major in science or nontraditional courses of study. The inference here was that women's responses to fear of success measures were related to their sex-role orientation.

Subsequent research on the motive to avoid success and its relationship to sex-role orientation has generated a great deal of

research but with no consistent pattern of results. Several researchers have questioned whether or not the motive to avoid success was what was being captured in Horner's cues. For instance, Condry and Dyer (1976) reported fear of success as a fear of negative consequences which resulted from deviation of traditional sex-role standards in certain situations. Major and Sherman (1975) supported a similar position. They referred to fear of success as the social perception about what was and was not culturally appropriate sex-role behavior. Sorrentino and Short (1974) suggested that fear of success might be a measure of ability. However, Caballero, Giles, and Shaver (1975) investigated sex-role attitudes, educational backgrounds, and political stances of 24- to 40-year-old women who expressed high or low fear of success. They found fear of success to be more prevalent among well-educated, nontraditional, and politically liberal women. The authors suggested that fear of success imagery might be a reaction by ambitious women to threatening conditions that they might encounter.

Research findings by Gilmore (1975) rendered support for Horner's contention that fear of success had a positive relationship to sex-role standards. In a group of women between the ages of 18 and 50, fear of success imagery was significantly related to their sex-role ideology. Gilmore raised a question about the stability of the motive and suggested that it might be more prevalent in women who were involved with identity formation (college students) rather than older women who had already achieved identity though added years of living.

Alper (1974) developed the Wellesley Role Orientation Scale (WROS) to test whether or not traditional-role oriented women would be as achievement oriented as nontraditional-role oriented women. The WROS assessed traits women generally regarded as feminine, roles women regarded as acceptable for women, and career orientations women considered more appropriate for men than women. She reported that subjects who had a traditional sex-role attitude or high score on the WROS related significantly fewer success stories than subjects who had nontraditional sex-role attitudes or low scores on the WROS. Contradictory findings were reported by Depner and O'Leary (1976) who found no relationship between the two variables. They concluded that sex-role orientation might not represent the initiator of the fear of success motive; however, it might be a predictor of fear of success behavior. Findings by Heilbrun, Kleemeier, and Piccola (1974) did not help to resolve the confusion. They reported that females with high masculine sex-role orientation with tendencies toward extreme contemporary attitudes toward women demonstrated a high incidence of fear of success.

Peplau (1976) offered some evidence which supported the contention that women with traditional sex-role attitudes might be affected by competition. However, no significant relationship was found between fear of success and sex-role attitudes as measured by her questionnaire. Subjects responded to fear of success imagery cues and performed verbal facility tasks. Peplau found that traditional women with fear of success performed significantly better in the noncompetitive

situation than the competitive situation. Similar results were reported by Makosky (1976) in her investigation of fear of success imagery and sex-role orientation.

Makosky found that fear of success was not an accurrate predictor of performance when it was examined by itself. The nature of the task and sex of the competitor must also be considered. When subjects took an anagram test, those who exhibited fear of success imagery, performed better on tasks described as feminine and when competing against another female. Women not having fear of success imagery, performed better on tasks described as masculine and when competing against a male. Makosky suggested that women did compete when they viewed competition as being appropriate for them. These findings were supported by Cherry and Deaux's (1978) cultural explanation for fear of success imagery and gender inappropriate behavior.

In the Cherry and Deaux study, male and female subjects wrote stories for Horner's original Anne/John cues. In one situation, Anne/John was in medical school and in another situation, nursing school. Data revealed that subjects, men and women, wrote stronger fear of success imagery to Anne in medical school than John in medical school. The reverse was found when subjects wrote fear of success imagery about John in nursing school. They stated:

> The tendency for both sexes to express avoidance of nontraditional activities suggests that the construct "fear of success" is not a predominately feminine concern. Rather both women and men show avoidance of gender-inappropriate activities and anticipate negative consequences for individuals who violate sex-role norms (p. 100).

Similar results were found by Monahan, Kuhn, and Shaver (1974). They suggested that the imagery reported by their high school subjects might be reflecting sex appropriate behavior associated with cultural stereotypes rather than a motive to avoid success unique to women.

When examining sex-role orientation and fear of success, data supported the importance of considering the context in which competitive success was assessed (Lockheed, 1975). The findings of O'Leary and Hammack (1975) also found this to be true in their study of high achieving female high school students. The Wellesley Role-Orientation Scale was administered along with four verbal cues representing female competitive success in areas viewed as traditionally masculine, traditionally feminine, social-domestic, and competitive success in the arts. Significant differences in fear of success imagery were related to sex-role orientation in that nontraditional subjects had significantly fewer fear of success stories in response to the feminine competitive success cue. Further analysis revealed that subjects who were nontraditionally oriented varied their fear of success response according to the achievement context in which the female's competitive success occurred.

In summary, the motive to avoid success and its relationship to sex-role orientation has produced confusing results. Zuckerman and Wheeler (1975) pointed out in their review of the motive to avoid success that evidence has failed to consistently support high fear of success as characterizing traditionally role-oriented females.

Although the two appeared related, the specifics of their relationship remain elusive. Whether fear of success was the result of the subject's sex-role orientation, the situation in which the competition success was assessed, or the cultural interpretation of stereotypes remains to be clarified.

Fear of Success and Performance

Horner's hypothesis which stated that women who had high fear of success imagery performed less well when in competitive situations has also produced conflicting results. Zuckerman and Wheeler (1975) noted that the research examining these two components has never defined the situation in which the motive to avoid success was supposed to be aroused. Consequently, some investigators assumed that sex-role orientation and performance in sex-inappropriate tasks aroused the motive to avoid success. Others concentrated on the salience of the value of success to the subject. Regardless of the manipulation, value of success or sex appropriateness of the tasks, results have remained inconsistent.

Karabenick, Marshall, and Karabenick (1976) found some support for Horner's hypothesis that the performance level of high fear of success females would be less effective in competitive situations. Female undergraduate students responded to Horner's Anne cues, completed a test for fear of failure and competed on an alpha-numeric substitution task under three conditions: alone, against same sex, and against opposite sex. Feedback (greater success than opponent, less success than opponent, or equal performance to opponent) was given to the

subject prior to the final two performances on the task. Females without fear of success performed better against males than against females regardless of the feedback condition. Females with fear of success had a better performance level against a female competitor than against a male competitor. Lowest performance scores were obtained from females with fear of success when they competed against males. Highest performance scores were also obtained by females with fear of success when they competed against other females. Subjects without a competitor had performance levels between the two competitive groups. As a possible interpretation for these results, Karabenick et al. reasoned that competition, alone, might not be a sufficient condition to elicit different fear of success performance levels from fear of success subjects. The key component appeared to be the presence of males and possible negative consequences associated with success in the male's presence.

Argote, Fisher, McDonald, and O'Neal (1976) investigated whether or not the situation was the decisive determinant of fear of success. In their study, they raised the question of whether or not the consequences of performance, success or failure on an anagram task with subsequent acceptance or rejection by a confederate, resulted in the occurrence of fear of success behaviors. Fear of success was measured by the subject's performance level on the second competitive anagram task. Data indicated that fear of success behaviors were demonstrated by both sexes, not just females. Subjects who were accepted or rejected by a male partner following failure on the first

anagram task performed less well on the second anagram task than did subjects who were accepted following success or rejected following failure. These results were discussed in relation to social acceptance as being incompatible with achievement behavior. Argote et al. concluded that fear of success behavior might be a strategy utilized by both sexes in response to environmental contingencies. Findings by Jellison, Jackson-White, Bruder, and Martyna (1975) further supported that point of view. They suggested that:

> . . . if the cues in a situation indicate that high performance will be followed by positive external consequences, then people will perform at a high level. Conversely, if the cues in a situation indicate that high performance will be followed by negative external consequences and that a lower performance will be associated with positive external consequences, then people will not perform at a high level (p. 370).

The performance on masculine or feminine tasks of females who scored either high or low on fear of success was investigated by Sorrentino and Short (1974). They found that women high in fear of success performed significantly higher on the male oriented task than the female task even though the tasks were the same, just labeled differently. However, Makosky (1976) found that women who wrote fear of success imagery stories performed better on tasks described as feminine and when in competition with a female. Further, women who did not express fear of success imagery performed better on tasks described as masculine and in competition with a male.

Two studies (Morgan & Mausner, 1973; Romer, 1975) investigated fear of success and performance of younger subjects. Morgan and Mausner questioned whether or not high school girls would alter their

performance when cooperating with boys who were of lesser ability. Subjects were matched in pairs of unequal ability according to their performance on the Hidden Figure Test. The pairs, high ability male-low ability female and high ability female-low ability male, worked together on another form of the Hidden Figures Test. Data indicated that in dyads where the male was high, his performance continued to remain higher than his female partner. This finding was not true for the dyad where the female was of high ability and her male partner low. She altered her performance so that 50% of the time her male partner surpassed her performance. Morgan and Mausner also reported an inconsistency between the performance scores and the fear of success scores. Males told more fear of success stories than females. In this case, projective measures of fear of success were not paralleled in behavioral data, findings which were inconsistent with Horner's research.

Romer (1975) addressed the questions: (a) at what stage of chronological development was fear of success imagery related to performance, and (b) did this relationship and types of fear of success imagery differ by sex. Fifth, seventh, eighth, ninth, and eleventh grade students took a projective measure similar to Horner's and performed a series of scrambled-word tasks under five conditions: (a) noncompetitive group, (b) competition against group, (c) competition against same sex, (d) competition against opposite sex, and (e) noncompetitive alone. Romer reported that equal proportions of males and females told stories with fear of success;

however, ninth grade subjects had more fear of success stories than either fifth or eighth grade subjects. Females had an increase in fear of success imagery from the fifth through the eleventh grade with the exception of the seventh grade. The seventh grade females demonstrated a lower frequency of fear of success imagery. Males showed a similar pattern of increase of fear of success imagery until the eleventh grade at which point there was a sharp decline.

When Romer examined the motive to avoid success with the performances of the subjects, the obtained results were opposite to those expected. Significantly better performances for all subjects were reported in the noncompetitive-alone condition and in competition with the same sex. Also subjects with fear of success imagery performed better under all five conditions than subjects without fear of success. Females demonstrated no significantly different performance patterns regardless of the presence or absence of the fear of success motive. Further analysis suggested that ninth and eleventh grade females without fear of success had better performance scores in situations not explicitly competitive. Males who evidenced fear of success, on the other hand, had better performance scores in the competitive group condition. Conversely, males without fear of success imagery performed better in the noncompetitive-alone condition. Fear of success was a predictor of behavior in older males and females; however, it was in the opposite direction from that expected.

As cited in the literature review, Horner's motive to avoid success has been researched primarily in academic achievement situations. The presence or absence of the motive was determined by the fear of success imagery evidenced by what subjects wrote when responding to verbal leads. Investigators (Tresemer, 1974; Zuckerman & Wheeler, 1975; Griffore, 1977) have questioned the reliability of the scoring system and several (Zuckerman & Allison, 1976; Pappo, 1972) have devised objective questionnaires to measure the motive.

Griffore (1977) examined three new instruments which measured fear of success: Horner, Tresemer, Berens, and Watson's empirically derived fantasy-based scoring system, Pappo's objective measure of academic success (FOS), and Zuckerman and Allison's Fear of Success Scale (FOSS). He found that only the FOS and FOSS instruments were significantly and positively correlated. Griffore reasoned that fear of success might be a situation-specific state related to academic situations. The FOS related to academic situations and the FOSS measured a general competitiveness. It was concluded that the three instruments measured different facets of the fear of success construct.

The results of the research on fear of success and related variables have left little doubt that a consistent pattern of interaction has yet to be obtained. Whether this was due, in part, to scoring problems related to the fear of success imagery (Tresemer, 1974) or the type of task has not yet been ascertained. Several

investigators (Tresemer, 1974; Shaver, 1976; Zuckerman & Wheeler, 1975) have questioned the absence of behavioral data to parallel the motive to avoid success but they have not questioned the existence of the construct.

Sex-role Orientation and Fear of Success Measures in Competitive Sport Performance

Duquin (1977) investigated sex-role orientation, as measured by the Bem Sex-Role Orientation Inventory, of college male and female physical education majors and athletes. She reported that the male sample scored significantly higher than the female sample on the masculinity scale. The reverse was true for the female sample and the femininity scale. When the sex-role orientations were classified, the majority of men were classified as masculine while the majority of females were classified as androgynous. Duquin suggested that:

> The results of this study support the contention that sport viewed as an agent of masculine orientation is most likely to attract the highly sex typed male. Sport viewed from this perspective appears as an activity which reinforces instrumental qualities while at the same time inhibits or discourages expressive qualities (p. 50).

The sex-role orientation categories reported by Duquin (1977) resembled those reported by Helmreich and Spence (1977a) in their study of 157 male and female Ph.D. scientists and engineers and 41 female varsity athletes. The male sample subscribed to the masculine category, androgynous, undifferentiated, and feminine respectively. The female athletes and female scientists subscribed to the androgynous category first and masculine second.

Peake (1978) examined the relationship of sex-role orientation and achievement motivation of male and female college students majoring in English, engineering, and physical education. For women, there was a significant relationship between sex-role orientation and major. Women English majors were primarily feminine, engineers were primarily masculine, and physical education majors were primarily androgynous. Males did not reflect similar relationships. However, there was a significant relationship between sex-role orientation and sex among male and female physical education majors. Females were classified primarily as androgynous and males primarily in the masculine category.

The Personal Attributes Questionnaire, Texas Social Behavior Inventory, and Work and Family Orientation Questionnaire were administered to female scholastic and club runners (Harris & Jennings, 1977a). Data revealed that the largest percentage of club runners (ages 14-23 years) were androgynous followed by equal percentages of feminine, masculine, and undifferentiated categories. For club runners over 26 years old, the largest percentage was in the masculine sex-role orientation classification followed by androgynous, undifferentiated, and feminine respectively. Sex-role orientation correlated with the self-esteem measure (Texas Social Behavior Inventory). Those reporting highest self-esteems were androgynous followed by masculine. Those classified as feminine were lowest in self-esteem followed by the undifferentiated. These data continued to support the findings of Spence et al. (1975).

Harris and Jennings (1977b) examined the sex-role orientation of female runners and rowers. Data obtained from the subjects supported that of previously cited studies. Female athletes, classified by the Personal Attributes Questionnaire, had the following sex-role orientation categories: androgynous, masculine, feminine, and undifferentiated respectively.

Two studies which determined the sex-role orientation of the female athlete to be slightly different from those cited were by Colker and Windom (1977) and Wilcoxon (1977). Colker and Windom examined the sex-role orientation of female rowers and swimmers and basketball and squash players. They found that out of 71 athletes, 24% were categorized in masculine and 24% in androgynous groups, followed by 32% undifferentiated and 20% feminine.

Wilcoxon (1977) included participants in both team and individual sports in her study of female athletes. She found the sex-role orientation of these athletes to be: masculine, androgynous, undifferentiated, and feminine respectively. Self-esteem measures replicated the previous research with androgynous and masculine groups having significantly higher self-esteem scores than either the feminine or undifferentiated groups.

Fereira (1975) investigated the motive to avoid success in women and its relationship to a motor performance task under three conditions. She administered a projective measurement instrument in which she used sport cues to assess fear of success imagery in sport. The original analysis of fear of success imagery failed to

distinguish between high and low groups. Consequently the stories were re-analyzed for projected success content. A positive success group (N=13) and a negative success group (N=12) were identified from the original sample of 181 undergraduate students. The two groups participated in a novel gross motor task under three competitive conditions: alone, against another female, and against a male. Fereira reported no statistically significant relationships between the two groups and the performance conditions.

In a study which more closely resembled the design of the present investigation, Daniels (1977) administered the Personal Attributes Questionnaire, Fear of Success Scale, and a disjunctive reaction time task to undergraduate female varsity athletes. The athletes were divided into four groups according to their sex-role orientation and tested under three conditions: alone, against a female confederate, and against a male confederate. Daniels reported the following results: (a) androgynous athletes had lower fear of success scores than athletes classified as masculine, feminine, or undifferentiated, (b) no relationships were found between sex-role orientation and performance under the three conditions, and (c) no relationship was found between sex-role orientation, high or low fear of success, and performance under the three conditions.

Summary

The research reported offered supportive evidence for the masculinity and femininity duality construct and sex-role orientation

classification. However, investigators have not attempted to correlate sex-role orientation and fear of success measures with behavioral data related to the athlete's performance in his or her specific sport. Furthermore, few studies have investigated the male athlete's sex-role orientation. Most investigators have found the female athlete's sex-role orientation to be androgynous but in terms of behavioral implications, relevant findings are few. Until such time as sex-role orientation and fear of success have been correlated with behavioral data, the theoretical constructs will remain somewhat limited.

CHAPTER III

PROCEDURES

The purpose of this study was to investigate differences in high school male and female athletes' sex-role orientation, level of fear of success, and performances on a competitive sport task under three performance conditions: alone, against same sex, and against opposite sex. The steps pursued in the conduct of this research are presented in three major parts: (a) preliminary preparation, (b) the collection of data, and (c) statistical analyses of the data.

Preliminary Preparation

The preliminary preparation for the study involved the following general procedures: (a) selection of instruments, (b) selection of competitive performance tests, (c) selection of subjects, and (d) pilot to the study.

Selection of Instruments

Appropriateness of instruments for high school subjects, ease of administration and scoring, and administration time were criteria used to select the paper-and-pencil instruments. The instruments selected to meet these criteria were the Personal Attributes Questionnaire (PAQ) and the Fear of Success Scale (FOSS).

Personal Attributes Questionnaire. The Personal Attributes Questionnaire (PAQ) is a self report instrument, devised by Spence et al. (1975), which assesses varying degrees of socially desirable

femininity and masculinity in individuals who respond to the 24 bipolar items. Each subject rates himself or herself on a 5-point scale scored from 0 to 4. Separate scores are obtained on 2 different scales--masculinity and femininity.

The original test consisted of 55 bipolar items which described:

> . . . psychological characteristics which (a) both sexes believe differentiate the average male and the female, and (b) actually do differentiate the average male and female when individuals are asked to rate themselves (Helmreich & Spence, 1977a, p. 36).

Items were separated into masculine and feminine scales. The masculine scale consisted of items that defined personal characteristics socially desirable for both sexes but that occurred to a greater proportion in males. Similarly, the feminine scale consisted of items that defined personal characteristics socially desirable for both sexes but that occurred to a greater proportion in females.

Spence et al. determined the social desirability of the items from an assessment of previous data which rated the ideal male and ideal female. Classifications of these items resulted in the following scales: (a) masculine--both the ideal male and ideal female means fell on the masculine side of the midpoint but the males' score was closer to the masculine end, (b) feminine--both the ideal female and ideal male means fell on the feminine side of the midpoint but the females' score was closer to the feminine end, and (c) masculinity-femininity--mean ratings of the ideal male and ideal female fell on opposite sides of the midpoint suggesting that social desirability was not the same on these specific items.

Further research resulted in the Personal Attributes Questionnaire short form, 24 items selected from the original scale. See Appendix A for copy of the questionnaire. These items were selected on the basis of the magnitude of the part-whole correlations between the item and the specific scale to which it belonged. In a sample of college students, the PAQ short form correlated with the full form .93, .93, and .91 for the scales: masculinity, femininity, and masculinity-femininity respectively. Cronbach alphas for the sample of students who took the short form were .85, .82, and .78 for the masculinity, femininity, and masculinity-femininity scales respectively.

The sex-role orientation of the subject was determined by combining the data for both sexes on each scale and obtaining the median. Using the masculine and feminine medians for the total sample, individuals were classified into one of four groups, depending on where their score located on the two scales. Subjects who scored above the median on the masculine and feminine scales were classified as androgynous. Subjects who scored high on the masculine and low on the feminine were classified as masculine while subjects who scored high on feminine and low on masculine were classified as feminine. The fourth classification was undifferentiated and classified those subjects who scored low on both the feminine and masculine scales. Subjects whose scores on both the masculine and feminine scales fell on the median were excluded from the analysis because their scale scores did not allow sex-role orientation classification.

Out of a possible 32 on both the masculinity and femininity scales, the medians for a college sample of 715 resulted in a score of 20 for the masculinity scale and a score of 23 for the femininity scale. The median for the high school sample of 756 males and 1,013 females was 21 on the masculine scale and 23 on the feminine scale (Helmreich & Spence, 1977b).

The third scale, masculinity-femininity, was not used for the purposes of this study. Helmreich and Spence (1977b) noted that this scale could be used to classify subjects into an eight-way classification. Subjects in each of the four sex-role categories whose scores fell above or below the overall median on the masculinity-femininity scale could be further divided within that category. As the eight-way classification did not provide necessary data for the sex-role orientation, the masculinity-femininity scale was not included in the analysis.

Fear of Success Scale. The level of fear of success was assessed by the Fear of Success Scale (FOSS) originated by Zuckerman and Allison (1976). See Appendix B for a copy of the scale. The self-report instrument assesses individual differences in the motive to avoid success. The scale consists of 27 items which describe the: (a) benefits of success, (b) costs of success, and (c) individual's attitude toward success. Sixteen of the items reflect high fear of success and eleven items reflect low fear of success. Subjects respond on a 7-point scale and their responses are scored in the direction of a high fear of success. Potential scores on the scale

range from 27 to 189. Subjects who score above the median are classified as having high fear of success while subjects who score on or below the median are classified as having a low fear of success.

The Fear of Success Scale was constructed from 35 items which were administered to 183 males and 193 female college undergraduate students. A part-whole correlation resulted in 8 scale items being discarded. Of the remaining items, 16 reflected high fear of success. The correlations for the 27 items were low but consistent (r=.08 to .49). The coefficient alpha for the scale was .69 among males and .73 among females.

Competitive Performance Test

For the assessment of the competitive performance test, the following criteria were established: (a) the performance test would involve an appropriate skill in both boys' and girls' basketball, (b) the test would require minimal time to administer, (c) the performance test would be timed, and (d) the test would require minimal equipment.

The competitive performance test selected to meet the above criteria was a shooting test. See a copy of the shooting test instructions in Appendix C. The subject started from behind the foul line on a regulation basketball court, and on signal to begin, shot for a basket. After the first shot, the subject retrieved the basketball and was free to move as close to the basket as desired. Any type of shot was acceptable and the subject continued shooting until 20 baskets had successfully been made.

The timer, positioned at the side of the foul line, counted out loud the number of baskets as they were made. When the 20th basket had been completed, the subject dribbled the basketball back to the foul line. The score was recorded as the time it took the subject to successfully complete 20 baskets and return to the foul line. Each subject completed two consecutive trials of the test. The test was administered under three different conditions: alone, against a player of the same sex, and against a player of the opposite sex. An average of the two trials for each condition represented the subject's scores for the competitive performance test.

In the same sex condition, members of the same basketball team were randomly drawn to compete against one another but at separate baskets located on the side of a regulation basketball court. Timers were positioned by the side of the foul line beside the subjects they were assigned to time and one was designated to start both subjects. On the signal to begin, the subject, located behind the foul line, shot for a basket. The ball was retrieved and the subject continued to shoot until 20 baskets had successfully been completed. Each time a basket was made, the timer announced the score out loud. When 20 baskets had successfully been completed, the subject dribbled the basketball back to the foul line. Subjects were instructed to complete the shooting test even though an opponent might have completed the test first.

In the opposite sex competitive shooting test, a member of the boys' team was randomly paired with a member of the girls' team.

Subjects competed against each other but again at separate baskets which were located on the side of a regulation basketball court. The procedure followed for the administration of the test was identical to that used during the same sex testing condition.

Selection of Subjects

A letter was written to Dr. Johnny Presson, Associate Superintendent, Guilford County School System, stating the nature of the study and requesting permission to conduct the research in the Guilford County Senior High Schools. A subsequent meeting was held with Dr. Presson who granted permission for the investigator to contact each high school principal to obtain his approval to test in that school. Ms. Judy Flynn, Coordinator of Health and Physical Education for Guilford County School System, was appointed by Dr. Presson to serve as liaison for this investigator. Ms. Flynn called and requested a meeting with each high school principal and the boys' and girls' basketball coaches so that the investigator could discuss the purpose of the study and explain the details of the testing procedure.

Pilot to the Study

A pilot study was conducted at one of the high schools in the sample. This school was selected to serve as a pilot to the study because of the unique arrangement of the testing sequence. The coaches had agreed to participate in the investigation only if all the testing of their athletes were completed during one testing session. The remaining schools in the study had agreed to have the

testing conducted on four separate days, one day for the-paper-and pencil instruments and three days for the three competitive performance tests.

The purpose of the pilot study was to clarify for this investigation some of the procedures concerning the written surveys and competitive performance test: (a) Would the subjects have questions concerning the written surveys?, (b) Would the subjects comprehend the nature of the questions on the surveys?, (c) Should there be a cut-off time in the competitive performance tests?, and (d) Where should the subject begin the competitive performance test?

Prior to completing the surveys, the subjects were asked to read, and if they agreed, sign an informed consent form which explained their involvement in the study. See Appendix D for copy of form. All subjects signed the consent form and were administered the randomly ordered Personal Attributes Questionnaire and Fear of Success Scale. These surveys were administered to both teams simultaneously in the gymnasium.

Upon completion of the surveys, the subjects were directed to one of four female timers who administered the competitive shooting test for the alone condition. Females competed on one side of the gymnasium and males on the other side. After subjects completed two trials in the alone condition, they were randomly paired with a member of the opposite team to compete in the against-opposite-sex testing condition. The last testing condition was against a same-sex teammate. Random assignments were also made for this testing condition.

Twenty-one subjects took part in the pilot study. Since the purpose of the pilot was to resolve some possible procedural difficulties, data were not analyzed. Procedural changes resulted in: (a) prior to the administration of the surveys, the investigator read the instructions for both surveys to the subjects and asked if there were any questions concerning the way the scales were to be interpreted, (b) no cut-off time was established as all subjects were able to complete the competitive shooting test in less than two minutes, and (c) subjects started the competitive shooting test with a foul shot from behind the foul line.

Collection of Data

Subjects

Subjects for the study were 71 female and 62 male varsity basketball players who participated on a high school team in Guilford County, North Carolina, during the 1977-78 academic year.

Administration of Instruments

The testing date for the Personnel Attributes Questionnaire and the Fear of Success Scale was established during the initial meeting with the principal and coaches at each high school. On the established day and time, the investigator met separately with the boys' and girls' varsity basketball team and administered the surveys. Depending on the specific practice schedule on the teams, the surveys were administered either immediately before or immediately after the scheduled practice time.

When the subjects entered the testing room, they received a pencil and a test booklet which included an informed consent form and the randomly ordered surveys: Personal Attributes Questionnaire and Fear of Success Scale. Subjects were asked to read the informed consent form and if they agreed to participate in the investigation, indicate by signing their name and providing their age and year in school. After consent was obtained from the subjects, instructions for the surveys were read aloud and questions entertained. Subjects usually completed the surveys in approximately 15 minutes.

While the subjects completed the surveys, the investigator met with the coach to determine the testing dates and times for the three competitive performance tests. An attempt was made to establish the testing times on three consecutive days. This was not always possible because of the different practice schedules of the teams.

After the test booklets were collected, the investigator checked each one to make sure both surveys were completely filled out. If questions had been omitted or overlooked, subjects were asked to complete the unfinished part at the first performance testing session.

Administration of Competitive Performance Tests

The competitive performance test was performed under three different conditions: alone, against same sex, and against opposite sex. Prior to the administration of the performance tests, the testing order was randomly drawn for each school. The schools were tested in one of the following orders: (a) alone, against same sex, against opposite sex, (b) against opposite sex, against same sex,

alone, (c) against same sex, against opposite sex, alone, (d) alone, against opposite sex, against same sex, (e) against same sex, alone, against opposite sex, and (f) against opposite sex, alone, against same sex.

The three competitive performance tests were administered to the basketball teams on three separate days. Teams usually maintained the same practice each week; therefore, the time of testing, before or after practice, remained constant for all testing sessions. Data were collected during the months of November and December, 1977.

On the designated day and time which had been established, four female timers went to the gymnasium of the specified school to test. The timers, who were paid, were either present or past students of The University of North Carolina at Greensboro. Each had a clip board, stop watch, and individual score cards for the competitive performance test that was being administered that day.

The boys' and girls' teams were tested separately in the alone and against-same-sex condition. Testing took place during the last 15 minutes or the first 15 minutes of the practice time of each team. For the against-opposite-sex condition, the team that had the later practice time agreed to come to practice 10 minutes ahead of schedule. Testing for this condition was completed in approximately 20 minutes.

The only problem encountered in testing the competitive performance tests was with one school. When the investigator arrived on the scheduled testing day, the boys' basketball coach refused to

cooperate in the performance testing. However, the girls' basketball team was teeted and in the established sequence. For the against-opposite-sex condition, they competed against the boys' junior varsity basketball team at that same school. Only the data from the girls' team was included in the analysis.

Testing conditions. General instructions for the performance tests were read before the subjects, who had been randomly assigned, were directed to their testing station. Each subject performed the shooting test two consecutive times with no rest period between trials. A stop watch was used in timing both trials. The time, in tenths of a second, was recorded on each subject's score card for the testing condition. The sex and race of the subject were also coded. No attempt was made to control for teammates who verbally encouraged the subject being timed.

Treatment of Data

The Statistical Package for the Social Sciences (SPSS) computer program One-way Analysis of Variance was used to assess if the competitive sport performance under three conditions -- alone, against the same-sex player, and against an opposite-sex player--of male and female high school varsity athletes differed by sex-role orientation, and fear of success level. The SPSS computer program for Spearman Rank-Order Correlation Coefficients was also used to compare the variables of sex-role orientation, fear of success, and competitive sport performance under the three conditions of alone, against a

same-sex player, and against an opposite-sex player for male and female athletes. For all statistical analyses, the probability of .05 was the accepted level of significance.

CHAPTER IV

ANALYSIS AND DISCUSSION OF DATA

This study investigated the competitive sport performance under three conditions: alone, against a same-sex player, and against an opposite-sex player of male and female high school varsity athletes with differing sex-role orientation, and fear of success level. Sex-role orientation was assessed by the Personal Attributes Questionnaire (Spence et al., 1975) and fear of success by the Fear of Success Scale (Zuckerman & Allison, 1976). The competitive sport performance under three conditions was measured by a timed basketball shooting test.

Participants in this study were 71 female and 62 male athletes with a mean age of 16 years. Subjects were members of 1977-78 high school varsity basketball teams in Guilford County, North Carolina. One-way analysis of variance was utilized to accept or reject the following hypotheses:

1. No difference exists between the male athlete's competitive sport performance under three conditions: alone, against a same-sex player, and against an opposite-sex player and his sex-role orientation and fear of success level.

2. No difference exists between the female athlete's competitive sport performance under three conditions: alone, against a same-sex player, and against an opposite-sex player and her sex-role orientation and fear of success level.

Spearman correlation coefficient was used to accept or reject the hypothesis that:

3. No relationship exists among male and female athlete's sex-role orientation, fear of success level, and competitive sport performance under three conditions: alone, against same sex, and against opposite sex.

For the purpose of analysis, data are presented in two parts: descriptive and inferential. The descriptive data includes the presentation of male and female athletes' Personal Attributes Questionnaire and Fear of Success Scale results and the performance times under each of the three competitive test conditions. The inferential data presentation includes the one-way analysis of variance and the Spearman correlation coefficient for both male and female athlete's sex-role orientation classification, level of fear of success, and competitive performance tests under the three conditions. The obtained scores which served as the raw data for all statistical analyses are presented in Appendix E.

Descriptive Data

Sex-role Orientation

The sex-role orientation, as measured by the Personal Attributes Questionnaire, was determined by obtaining the median score on the femininity scale and the masculinity scale for the sample. The athletes in this study had a median score of 23.35 on the femininity scale and 22.88 on the masculinity scale. Results of the athletes' sex-role orientation classification are presented in Table 1.

Table 1

Sex-role Orientation Classification of Athletes

Sex	Androgynous		Feminine		Masculine		Undifferentiated		Unclassified	
	N	%	N	%	N	%	N	%	N	%
Females	17	23.94	24	33.80	11	15.49	17	23.94	2	2.82
Males	20	32.26	9	14.52	17	27.42	15	24.19	1	1.61

Subjects who scored above the median of 23 on both the masculinity and femininity scales were classified as androgynous. Seventeen or 23.94% of the female athletes and 20 or 32.26% of the male athletes were in this classification.

Subjects classified as having a masculine sex-role orientation were those who had median scores or above on the masculinity scale and below median scores on the femininity scale. Of the male athletes, 17 or 27.42% were located in this sex-role orientation classification while only 11 or 15.48% of the female athletes were classified as masculine.

The feminine sex-role orientation classification reflected subjects who scored at the median or above on the femininity scale while scoring below the median on the masculinity scale. Of the female athletes, 24 or 33.80% had a feminine sex-role orientation while only 9 or 14.52% of the males were represented in this classification.

The subjects classified as undifferentiated were 17 females or 23.94% of the total females and 15 males or 24.19%. Being classified in this category was the result of one's scores falling below the median on both the femininity and masculinity scales. In addition, three subjects in this study were not classified because their scores on both the femininity and masculinity scales equaled the median.

Discussion. The sex-role orientation, as measured by the Personal Attributes Questionnaire, for male and female athletes resulted in different classification from those of previous research (Duquin, 1977; Helmreich & Spence, 1977a; Harris & Jennings, 1977a,b).

The percentage of female athletes classified in each of the sex-role categories resulted in 34% feminine, 24% androgynous and undifferentiated, and 15% masculine. In studies of college athletes' sex-role orientation (Helmreich & Spence, 1977a; Harris & Jennings, 1977; Colker & Windom, 1977; Wilcoxon, 1977), a greater percentage of female athletes were classified as androgynous and/or masculine followed by undifferentiated and/or feminine classifications.

Male athletes sex-role orientation classifications were 32% androgynous, 27% masculine, 24% undifferentiated, and 14% feminine. These data were not supported by the findings of Duquin (1977) who found the majority of male college athletes and physical education majors to have masculine sex-role orientations. However, the dearth of research examining male's sex-role orientation in sport does not allow comparisons beyond this study of college age males. As previously mentioned, males in sport were expected to be masculine but this may not be a correct assumption for the male high school athlete.

Several differences existed between this study and others reporting percentage differences in sex-role orientation classification. All research previously cited examined subjects of college age or older. This study examined high school subjects. There exists the possibility that the high school subject's sex-role orientation is not firmly established until a later age. The high percentage of undifferentiated sex-role orientation classifications seemed to reflect this possibility --24% for both the female and male athlete.

For the female athlete, the feminine sex-role orientation classification of 33.8% represented the largest for this sample. In this study, it might be that the female athlete did not view her sport behavior as being incompatible with her feminine attribute descriptors (Hall, 1972). This seems to be evident in her subscription to the feminine sex-role orientation, whereas it was expected that the female athlete would subscribe to either the androgynous or masculine sex-role orientations. The young female athlete, in this case the high school subject, may not view sport as being an exclusively male domain or as incorporating attributes primarily associated with masculinity. Her self-report sex-role orientation classification seems to support this explanation.

The largest percentage of male athletes (32.26%) subscribed to an androgynous sex-role orientation which incorporated high proportions of both masculine and feminine attributes. This orientation is not in juxtaposition with the attributes more commonly associated with sport and masculinity. Thus, it appears that the young male athlete does not view masculine descriptors as the only attributes appropriate to his masculine identification. His self-report sex-role orientation classifications align with this possibility.

It was expected that some of the female athletes would subscribe to the masculine sex-role orientation classifications (Helmreich & Spence, 1977a; Harris & Jennings, 1977). However, it was somewhat interesting that some male athletes (14.5%) did subscribe to the

feminine sex-role orientation classification. This cross-sex classification for the athletes seems to suggest situation specific behavior in that how an athlete describes her/himself may be independent of her/his actual behavior in the sport setting.

Fear of Success

Fear of success was measured by the Fear of Success Scale (Zuckerman & Allison, 1976). The median score was obtained for female and male athletes. Since a higher score is indicative of a higher fear of success, those who scored above the median were categorized as having high fear of success and those who scored on or below the median were categorized as having low fear of success.

The median score for the female athlete was 106 with a standard deviation of 13.76. Scores ranged from 75 to 138. Male athletes had a median score of 104 and a standard deviation of 12.77 with scores ranging from 62 to 134.

Discussion. These data are in keeping with the data reported by Zuckerman and Allison (1976). They found that college-age females consistently scored higher on the Fear of Success Scale than did college-age males. The researchers reasoned that Horner's motive to avoid success was more prevalent among females than among males.

Competitive Performance Tests

The competitive performance test, a basketball shooting test, was administered under three conditions: alone, against a same-sex player, and against an opposite-sex player. The average time of two trials recorded in seconds represented the subject's performance score under each condition. These data are presented in Table 2.

Table 2

Means and Standard Deviations of Male and Female Athletes' Competitive Performance Times Under Three Performance Conditions

Sex		Alone	Against Same Sex	Against Opposite Sex
Males	Mean	45.56	40.12	41.99
	SD	14.65	4.97	6.56
	St. Error	1.86	.64	.84
Females	Mean	57.77	55.14	55.57
	SD	12.52	15.25	12.81
	St. Error	1.50	1.82	1.52

Note. Time reported in seconds.

Data were analyzed for 59 male and 67 female high school athletes who completed all three of the performance tests. In the competitive performance test alone condition, male subjects had a mean score of 45.56 seconds with a standard deviation of 14.65. Female subjects had a mean score of 57.77 seconds with a standard deviation of 12.52.

The mean score for the male subjects for the competitive performance condition against the same-sex player was 40.12 seconds with a standard deviation of 4.97. Female subjects had a mean score of 55.14 seconds with a standard deviation of 15.25. A standard error of .64 permits the interpretation that 95% of the time the male subject's time would not deviate more than 1.3 seconds from the mean. A standard error of 1.82 for the female athlete indicates that 95% of the time her performance time would not deviate more than 3.6 seconds from the mean.

When the male's times were computed for the competitive performance against the opposite-sex player, the resultant mean was 41.99 with a standard deviation of 6.56. The female subject's mean time was 55.57 with a standard deviation of 12.81. As for the against-same-sex condition, the male subjects' times tended to have less variation from the mean than the female subjects' times.

Inferential Data

Hypothetical Statement I

An examination of the male athlete's sex-role orientation classification, high or low fear of success level, and competitive sport performance under three conditions -- alone, against a player

of the same sex, and against a player of the opposite sex--revealed no significant differences. These data are summarized in Tables 3 and 4.

Hypothetical Statement II

An examination of the female athlete's sex-role orientation classification, high or low fear of success level, and competitive sport performance under three conditions -- alone, against a player of the same sex, and against a player of the opposite sex--revealed no significant differences. These data are summarized in Tables 5 and 6.

Discussion. Male and female athletes, when classified by sex-role orientation and level of fear of success, did not significantly differ when they competed in a basketball shooting test under any of three conditions: alone, against a player of the same sex, and against a player of the opposite sex. As a result of these findings, both Hypothesis I and Hypothesis II were accepted.

Since male or female athletes did not differ on the competitive performance test under the three conditions, several observations seem warranted. First, athletes appear to accept competition in sport regardless of their sex-role orientation or level of fear of success. This finding was consistent for all four sex-role orientation classifications and for both high and low levels of fear of success. Bem and Lenney's (1976) finding that sex-typing restricted an individual's behavior was not supported by the findings in this study. Nor do the findings from this study support Duquin's (1977) proposal that sport is an agent of masculine orientation attracting highly sex-typed males.

Table 3

Analysis of Variance of Performance of High Fear of Success Male Athletes Classified by Sex-role Orientation Under Three Competitive Conditions

Variable	Source	DF	SS	MS	F	P
Alone	Between groups	3	967.06	322.35	0.96	N.S.
	Within groups	25	8378.40	335.14		
	Total	28	9345.45			
Same sex	Between groups	3	99.75	33.25	1.12	N.S.
	Within groups	25	742.36	29.69		
	Total	28	842.10			
Opposite sex	Between groups	3	63.81	21.27	0.65	N.S.
	Within groups	25	819.32	32.77		
	Total	28	883.13			

Note. F value necessary to obtain significance at .05 level is 2.99.

Table 4

Analysis of Variance of Performance of Low Fear of Success Male Athletes Classified by Sex-role Orientation Under Three Competitive Conditions

Variable	Source	DF	SS	MS	F	P
Alone	Between groups	3	117.39	39.13	0.54	N.S.
	Within groups	26	1869.90	71.92		
	Total	29	1987.29			
Same sex	Between groups	3	19.91	6.64	0.33	N.S.
	Within groups	26	524.19	20.16		
	Total	29	544.10			
Opposite sex	Between groups	3	324.35	108.12	2.28	N.S.
	Within groups	26	1235.60	47.52		
	Total					

Note. F value necessary to obtain significance at .05 level is 2.98.

Table 5

Analysis of Variance of Performance of High Fear of Success Female Athletes Classified by Sex-role Orientation Under Three Competitive Conditions

Variable	Source	DF	SS	MS	F	P
Alone	Between groups	3	722.71	240.90	1.11	N.S.
	Within groups	26	5659.76	217.68		
	Total					
Same sex	Between groups	3	2033.04	677.68	1.95	N.S.
	Within groups	26	9055.17	348.28		
	Total	29	11088.21			
Opposite sex	Between groups	3	338.90	112.97	1.33	N.S.
	Within groups	26	2214.62	85.18		
	Total	29	2553.51			

Note. F value necessary to obtain significance at .05 level is 2.98.

Table 6

Analysis of Variance of Performance of Low Fear of Success Female Athletes Classified by Sex-role Orientation Under Three Competitive Conditions

Variable	Source	DF	SS	MS	F	P
Alone	Between groups	3	262.27	87.43	0.734	N.S.
	Within groups	33	3928.05	119.03		
	Total	36	4190.32			
Same sex	Between groups	3	155.56	51.85	0.387	N.S.
	Within groups	33	4425.36	134.10		
	Total	36	4580.92			
Opposite sex	Between groups	3	795.24	265.08	1.159	N.S.
	Within groups	33	7547.11	228.70		
	Total	36	8342.35			

Note. F value necessary to obtain significance at .05 level is 2.92.

It may be that younger athletes do not view sport as incorporating only those attributes associated with masculinity. Therefore, the sport environment may encompass behaviors which are congruent with an athlete's interpretation and definition of her/his sex-role orientation, regardless of a specific classification. In other words, the athlete may have competed in each of the three performance conditions because competition was viewed as appropriate (Makosky, 1976) and relevant to her/his behavior in the sport setting.

Horner (1968) as well as Gilmore (1975) and Alper (1974) associated the motive to avoid success with sex-role orientation. However, the findings of this study for male and female athletes failed to support that relationship. It appears that Horner's motive to avoid success is not a salient motive for male and female athletes who elect to participate in competitive sport. The fear of success motive may be as Griffore (1977) suggested, a situation-specific state related to academic situations.

Another factor which might have influenced the results of this study is that athletes did not find competition in sport to be a situation which arouses the fear of success motive. Horner noted:

> It is assumed that individual differences in the strength of the motive to avoid success would not be manifested in behavior unless aroused by the expectancy that negative consequences would follow success (1972, p. 161).

Therefore, the three competitive performance tests might not have elicited a fear of success motive from male and female athletes who are accustomed to competition. Consequently, the motive was not manifested in their competitive performance behavior. Also, in line

with Horner's theory, athletes do not expect negative consequences from competing since competition is an accepted part of the athlete's behavior.

Karabenick et al. (1976) suggested that the presence of males rather than a competitive situation might be a sufficient condition to elicit different fear of success behaviors from subjects who were classified as having fear of success. The findings in this study failed to provide behavioral correlates to support differences between an athlete's sex-role orientation classification, level of fear of success, and competitive performance test scores regardless of the presence or absence of a male competitor.

Makosky (1976) noted that fear of success should be considered along with the nature of the task and the sex of the competitor. However, the findings of this study indicate that sex of the competitor did not influence the athlete's performance on competitive tests. Romer (1975) found that high school girls with fear of success did not have significantly different performances on an achievement task than high school girls without fear of success.

Neither Fereira's (1975) nor Daniels' (1977) research findings supported the fact that one's sex-role orientation classification and/or fear of success level data paralleled one's behavioral data. Failure to find the expected sex-typed sex-role orientation classifications of athletes may reflect Cherry and Deaux's (1978) cultural explanation for one's fear of success level and gender-inappropriate activities. High school athletes may not view competition in sport as being inappropriate for either sex.

Consequently, one's motive to avoid success is not aroused nor manifested in one's behavior.

Hypothetical Statement III

The correlation coefficients between sex-role orientation and fear of success level with competitive sport performance under three conditions -- alone, against same-sex player, and against opposite-sex player--of male and female athletes revealed some significant relationships. These data are summarized in Table 7 and Table 8. Although correlation coefficients between individual variables is not central to the problem under investigation, the information was included to provide additional insights into the specific relationships between sex-role orientation classification and competitive sport performance.

The null hypothesis was rejected in the following situations because there was a significant relationship for: (a) male athletes with an undifferentiated sex-role orientation and high fear of success level for the alone performance condition and opposite-sex performance condition, (b) male athletes with an undifferentiated sex-role orientation and low fear of success level for the alone performance condition and opposite-sex performance condition, (c) male athletes with a feminine sex-role orientation and low fear of success level for all three performance conditions: alone, against same sex, and against opposite sex, and (d) male athletes with an androgynous sex-role orientation and high level of fear of success for the alone performance condition and opposite-sex performance condition, and for the same-sex performance condition and opposite sex performance condition.

Table 7

Spearman Correlation Coefficient for Male Athlete's Sex-role Orientation and Fear of Success Under Three Competitive Conditions

Sex-role Orientation	Fear of Success		Alone with Same Sex	Alone with Opposite Sex	Same Sex with Opposite Sex
Undifferentiated	High	(4)	.800	1.000***	.800
	Low	(9)	.350	.600*	.217
Feminine	High	(6)	-0.5429	.486	.429
	Low	(3)	1.000***	1.000***	1.000***
Masculine	High	(9)	.550	.400	.267
	Low	(8)	.238	.262	-0.310
Androgynous	High	(10)	.491	.588*	.579*
	Low	(10)	.467	.164	.499

* .05 level
** .01 level
*** .001 level

Table 8

Spearman Correlation Coefficient for Female Athlete's Sex-role Orientation and Fear of Success Under Three Competitive Conditions

Sex-role Orientation	Fear of Success		Alone with Same Sex	Alone with Opposite Sex	Same Sex with Opposite Sex
Undifferentiated	High	(9)	.417	.583*	.533
	Low	(7)	.429***	.536	.714*
Feminine	High	(11)	.564*	.734**	.542*
	Low	(12)	.368	.848***	.482
Masculine	High	(5)	1.000***	1.000***	1.000***
	Low	(6)	.543	.714*	.943**
Androgynous	High	(5)	-0.300	0.000	.700
	Low	(12)	.676**	.483	.620*

* .05 level
** .01 level
*** .001 level

The null hypothesis was also rejected in the following situations because there was a significant relationship for: (a) female athletes with an undifferentiated sex-role orientation and high fear of success level for the alone performance condition and opposite-sex performance condition, (b) female athletes with an undifferentiated sex-role orientation and low fear of success level for the alone performance condition and same-sex performance condition, and for the same-sex performance condition and opposite-sex performance condition, (c) female athletes with a feminine sex-role orientation and high fear of success level for all three performance conditions: alone, against same sex, and against opposite sex, (d) female athletes with a feminine sex-role orientation and low fear of success level for the alone performance condition and opposite-sex performance condition, (e) female athletes with a masculine sex-role orientatation and high fear of success for all three performance conditions: alone, against same sex, and against opposite sex, (f) female athletes with a masculine sex-role orientation and low fear of success level for the alone performance condition and opposite-sex performance condition, and (g) female athletes with an androgynous sex-role orientation and low fear of success level for the alone performance condition and the same-sex performance condition, and for the same-sex performance condition and opposite-sex performance condition.

Discussion. With respect to the relationships examined between an athlete's self-reported sex-role orientation and fear of success level under three competitive performance conditions, analyses did not

yield clear results. Generally, the male athlete was not as consistent in performance in the competitive conditions as was the female athlete.

The female athlete who was classified as having a sex-role orientation of feminine or masculine and a high fear of success level was more consistent in the three competitive performance conditions than were those classified as undifferentiated or androgynous female athletes. Additionally, the competitive performances of those female athletes classified as androgynous and as undifferentiated and with a low fear of success level were similar. The literature to date does not provide an explanation for this performance similarity.

Relationships for male athletes who were classified according to their self-reported sex-role orientation and fear of success level under competitive performance conditions did not reveal consistent performances. There were significant relationships found for male athletes who were classified as having a low fear of success and feminine sex-role orientation in all three competitive performance conditions; however, the small number of subjects does not permit further elaboration.

The competitive performances of the athletes under the three conditions were consistent regardless of sex-role orientation or level of fear of success. These findings are consistent with those of the analysis of variance and seem to reflect that at least these athletes, male or female, view competition as a sex-appropriate behavior for the sport setting.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

This study investigated the competitive sport performance under three conditions -- alone, against a same sex player, and against an opposite-sex player--of male and female high school varsity athletes with differing sex-role orientation, and fear of success level. Sex-role orientation was measured by the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1975) and fear of success was measured by the Fear of Success Scale (Zuckerman & Allison, 1976). The competitive sport performance was assessed by a timed basketball shooting test.

Participants in the study were 71 female and 62 male athletes who were members of a 1977-78 high school varsity basketball team in Guilford County, North Carolina. Each subject completed the two self-report measures (PAQ and FOSS) and competed in the timed basketball shooting test under the three conditions: alone, against a same-sex player, and against an opposite-sex player. Two trials were administered under each condition. Time in seconds was averaged for the subject's competitive performance score under each condition.

Sex-role orientation classifications, as measured by the self-reported PAQ, resulted in male athletes being categorized as 32% androgynous, 27% masculine, 24% undifferentiated, and 14% feminine. Female sex-role orientation classifications resulted in 34% feminine,

24% androgynous and undifferentiated, and 15% masculine. One-way analysis of variance was utilized to assess whether male or female athlete's sex-role orientation, high or low fear of success level, and competitive sport performance under the three conditions -- alone, against same-sex player, and against opposite-sex player--differed.

Results of the analysis of variance revealed no significant differences for male or female athletes sex-role orientation, level of fear of success, and competitive sport performance tests under the three conditions. Additionally, Spearman correlation coefficients were computed for sex-role orientation and fear of success level with the competitive sport performances under the three conditions. Some significant differences were found but data analysis failed to yield clear results.

Conclusions

Based on the null hypotheses which were tested and within the limitations of the study, the following conclusions seem justified:

1. The high school male athlete's competitive sport performance under three conditions -- alone, against a same-sex player, and against an opposite-sex player--did not differ by sex-role orientation or fear of success level.

2. The high school female athlete's competitive sport performance under three conditions -- alone, against a same-sex player, and against an opposite-sex player--did not differ by sex-role orientation or fear of success level.

3. Some significant relationships were found between sex-role orientation and level of fear of success with the three competitive sport performances: alone, against same sex, and against opposite sex. However, the findings were equivocal.

Generally, the athlete's competitive sport performance under the three testing conditions -- alone, against same-sex player, and against opposite-sex player--was consistent. And, the three competitive conditions did not significantly differ by sex-role orientation classification or high or low level of fear of success as assessed by self-report measures.

Recommendations

The present investigation led to the following recommendations for further study:

1. Replicate the present study to corroborate the findings for high school male and female varsity athletes.

2. Investigate the competitive sport performances of sex-role orientation classifications: androgynous and undifferentiated subjects.

3. Compare the competitive sport performances of athletes, male and female, with equal numbers in each of the sex-role orientation classifications: androgynous, feminine, masculine, and undifferentiated.

4. Investigate the sex-role orientation, fear of success level, and competitive sport performances of high school athletes and nonathletes.

5. Investigate the salience of the motive to avoid success for male and female athletes in competitive sport performance and academic performance.

BIBLIOGRAPHY

Alper, T. G. Achievement motivation in college women: A now-you-see-it-now-you-don't phenomenon. American Psychologist, 1974, 29(3), 194-203.

Anderson, R. Motive to avoid success: A profile. Sex Roles, 1978, 4(2), 239-248.

Argote, L., Fisher, J., McDonald, P., & O'Neal, E. Competitiveness in males and in females: Situational determinants of fear of success behavior. Sex Roles, 1976, 2(3), 295-303.

Bakan, D. The duality of human existence. Chicago: Rand McNally, 1966.

Bem, S. L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42(2), 155-162.

Bem, S. L. Beyond androgyny: Some presumptuous prescriptions for a liberated sexual identity. Paper presented at the APA-NIMA Conference on the Research Needs of Women, Madison, Wisconsin, 1975. (a)

Bem, S. L. Sex role adaptability: One consequence of psychological androgyny. Journal of Personality and Social Psychology, 1975, 31(4), 634-643. (b)

Bem, S. L. On the utility of alternative procedures for assessing psychological androgyny. Journal of Consulting and Clinical Psychology, 1977, 45(2), 196-205.

Bem, S. L. & Lenney, E. Sex typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 1976, 33(1), 48-54.

Bem, S. L., Martyna, W., & Watson, C. Sex typing and androgeny: Further explorations of the expressive domain. Journal of Personality and Social Psychology, 1976, 34(5), 1016-1023.

Block, J. H. Conceptions of sex-role: Some cross-cultural and longitudinal perspectives. American Psychologist, 1973, 28, 512-526.

Bott, M. M. The m-f scale: Yesterday and today. Measurement and Evaluation in Guidance, 1970, 3(2), 92-96.

Brown, R. E. A use of the semantic differential to study the feminine image of girls who participate in competitive sports and certain other school-related activities. Unpublished doctoral dissertation, Florida State University, 1965.

Caballero, C., Giles, P., & Shaver, P. Sex-role traditionalism and fear of success. Sex Roles, 1975, 1(4), 319-326.

Cherry, F., & Deaux, K. Fear of success versus fear of gender-inappropriate behavior. Sex Roles, 1978, 4(1), 97-101.

Colker, R., & Windom, C. Sex-roles and female athletic participation. Paper presented at the APA Open Symposium of Papers on Psychology of Women, San Francisco, August 1977.

Condry, J., & Dyer, S. Fear of success: Attribution of cause to the victim. Journal of Social Issues, 1976, 32(3), 63-83.

Constantinople, A. Masculinity-femininity: An exception to a famous dictum? Psychological Bulletin, 1973, 80(5), 389-407.

Daniels, C. Sex-role classification and achievement avoidance in female college athletes. Unpublished thesis, The Pennsylvania State University, 1977.

Deaux, K. The behavior of women and men. Monterey, California: Brooks/Cole, 1976.

Depner, C., & O'Leary, V. Understanding female careerism: Fear of success and new directions. Sex Roles, 1976, 2(3), 259-268.

Duquin, M. Perceptions of sport: A study in sexual attraction. In R. Christina & D. Landers (Eds.), Psychology of Motor Behavior and Sport (Vol. 2). Champaign, Ill.: Human Kinetics Publishers, 1977.

Eme, R., & Lawrence, L. Fear of success and academic underachievement. Sex Roles, 1976, 2(3), 269-271.

Feather, N., & Raphelson, A. Fear of success in Australian and American student groups: Motive or sex-role stereotype? Journal of Personality, 1974, 42, 190-201.

Fereira, V. A. An examination of fear of success and achievement in sport. Unpublished thesis, California State University, Northridge, 1975.

Fleming, J. Comments on "do women fear success?" by David Tresemer. Signs: Journal of Women in Culture and Society, 1977, 2(3), 706-717.

Gilmore, B. To achieve or not to achieve: The question of women. Paper presented at a symposium on women and achievement: A Life Cycle Perspective at the 28th annual meeting of the Gerontological Society, Louisville, Kentucky, 1975.

Griffore, R. Validation of three measures of fear of success. Journal of Personality Assessment, 1977, 41(4), 417-421.

Hall, M. A. A 'feminine woman' and an 'athletic woman' as viewed by female participants and non-participants in sport. British Journal of Physical Education, 1972, 3(6), 43-46.

Hall, M. A. The sociological perspective of females in sport. In M. Adrian & J. Brame (Eds.), NAGWS Research Reports (Vol. III). Washington, D.C.: AAHPER, 1977.

Harris, D., & Jennings, S. Self-perceptions of female distance runners. In P. Milvy (Ed.), The Marathon: Physiological, Medical, Epidemiological, and Physiological Studies. New York: New York Academy of Science, 1977, pp. 301, 808-815. (a)

Harris, D., & Jennings, S. The relationship between sex-role classification and self-esteem among female distance runners. Paper presented at the NASPSPA Conference, Ithaca, New York, 1977. (b)

Heilbrun, A. Measurement of masculine and feminine sex role identities as independent dimensions. Journal of Consulting and Clinical Psychology, 1976, 44(2), 183-190.

Heilbrun, A., Kleemeier, C., & Piccola, G. Developmental and situational correlates of achievement behavior in college females. Journal of Personality, 1974, 42, 420-436.

Helmreich, R., & Spence, J. Sex-roles and achievement. In R. Christina & D. Landers (Eds.), Psychology of Motor Behavior and Sport (Vol. 2). Champaign, Ill.: Human Kinetics Publishers, 1977. (a)

Helmreich, R., & Spence, J. Unpublished manuscript, 1977. (Available from Robert Helmreich, Department of Psychology, University of Texas at Austin, Austin, Texas 78712). (b)

Hoffman, L. W. Fear of success in males and females: 1965 and 1971. Journal of Consulting and Clinical Psychology, 1974, 42(3), 353-358.

Hoffman, L. Fear of success in 1965 and 1974: A follow-up study. Journal of Consulting and Clinical Psychology, 1977, 45(2), 310-321.

Horner, M. Sex differences in achievement motivation and performance in competitive and non-competitive situation. Umpublished doctoral dissertation, University of Michigan, 1968.

Horner, M. Fail: Bright women. Psychology Today, 1969, 62, 36-38.

Horner, M. Femininity and successful achievement: A basic inconsistency. In J. Bardwick, E. Douvan, M. Horner, and D. Gutman (Eds.), Feminine Personality and Conflict. California: Brooks/Cole Publishing Company, 1970.

Horner, M. The motive to avoid success and changing aspirations of college women. In J. Bardwick (Ed.), Readings on the Psychology of Women. New York: Harper & Row Publishers, 1972. (a)

Horner, M. Toward an understanding of achievement-related conflicts in women. Journal of Social Issues, 1972, 28(2), 157-175. (b)

Horner, M. The measurement and behavioral implications of fear of success in women. In J. Atkinson and J. Raynor (Eds.), Motivation and Achievement. Washington, D.C.: V. H. Winston & Sons, 1974.

Horner, M., & Walsh, M. Psychological barriers to success in women. In R. Kundsin (Ed.), Women and Success: The Anatomy of Achievement. New York: William Morrow and Company, Inc., 1974.

Jellison, J., Jackson-White, R., Bruder, R., & Martyna, W. Achievement behavior: A situational interpretation. Sex Roles, 1975, 1, 369-384.

Jenkins, N., & Vroegh, K. Contemporary concepts of masculinity and femininity. Psychological Reports, 1969, 25, 679-697.

Jennings, S. The relationship between androgyny and self-concept among female athletes and nonathletes. Unpublished thesis, The Pennsylvania State University, 1977.

Kaplan, A., & Bean, J. (Eds.). Beyond sex-role stereotypes: Readings toward a psychology of androgyny. Boston: Little, Brown and Company, 1976.

Karabenick, S., Marshall, J., & Karabenick, J. Effects of fear of success, fear of failure, types of opponent, and feedback on female achievement performance. Journal of Research in Personality, 1976, 10, 369-385.

Levine, A., & Crumrine, J. Women and fear of success: A problem in replication. American Journal of Sociology, 1975, 80, 964-974.

Lockheed, M. Female motive to avoid success: A psychological barrier or a response to deviancy? Sex Roles, 1975, 1(1), 41-49.

Major, B., & Sherman, R. The competitive woman: Fear of success, attractiveness, and competitor sex. Paper presented at the Annual Convention of APA, Chicago, 1975.

Makosky, V. Sex-role compatability of task of competition and fear of success as a variable affecting women's performance. Sex Roles, 1976, 2(3), 237-248.

Monahan, L., Kuhn, M., & Shaver, P. Intrapsychic versus cultural explanation of the "fear of success" motive. Journal of Personality and Social Psychology, 1974, 29, 60-64.

Monk, S. An investigation of the self and ideal self profile and the dissonance between them among field hockey players. Unpublished thesis, The Pennsylvania State University, 1976.

Morgan, S., & Mausner, B. Behavioral and fantasied indicators of avoidance of success in men and women. Journal of Personality, 1973, 41, 457-470.

O'Leary, V., & Hammack, B. Sex-role orientation and achievement concept as determinants of the motive to avoid success. Sex Roles, 1975, 1(3), 225-234.

Orlofsky, J. Sex-role orientation, identity formation, and self-esteem in college men and women. Sex Roles, 1977, 3(6), 561-575.

Pappo, M. Fear of success: An empirical and theoretical analysis. Unpublished doctoral dissertation, Teachers College, Columbia University, 1972.

Parsons, T., & Bales, R. Family, socialization and interaction process. New York: Free Press, 1955.

Peake, L. The relationship of sex-role orientation, achievement motivation, and career choice. Unpublished thesis, The Pennsylvania State University, 1978.

Peplau, L. Impact of fear of success and sex-role attitudes on women's competitive achievement. Journal of Personality and Social Psychology, 1976, 34(4), 561-568.

Pleck, J. Masculinity-femininity: Current and alternative paradigms. Sex Roles, 1975, 1(2), 161-178.

Romer, N. The motive to avoid success and its effects on performance in school-age males and females. Developmental Psychology, 1975, 11(6), 689-699.

Shaver, P. Questions concerning fear of success and its conceptual relatives. Sex Roles, 1976, 2(3), 305-320.

Sorrentino, R., & Short, J. Effects of fear of success on women's performance at masculine versus feminine tasks. Journal of Research in Personality, 1974, 8, 277-290.

Spence, J. The thematic apperception test and attitudes toward achievement in women: A new look at the motive to avoid success and a new method of measurement. Journal of Consulting and Clinical Psychology, 1974, 42(3), 427-437.

Spence, J., Helmreich, R., & Stapp, J. Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity and feminity. Journal of Personality and Social Psychology, 1975, 32(1), 29-39.

Stein, A., & Bailey, M. The socialization of achievement orientation in females. Psychological Bulletin, 1973, 80(5), 345-366.

Stericker, A., & Johnson, J. Sex-role identification and self-esteem in college students: Do men and women differ? Sex Roles, 1977, 3(1), 19-26.

Tresemer, D. Fear of success: Popular but unproven. Psychology Today, 1974, 7(10), 86-89.

Tresemer, D. The cumulative record of research on "fear of success." Sex Roles, 1976, 2(3), 217-236.

Tresemer, D. A reply to Fleming. Signs: Journal of Women in Culture and Society, 1977, 2(3), 718-720.

Tresemer, D., & Pleck, J. Sex-role boundaries and resistance to sex-role change. Women's Studies, 1974, 2, 61-78.

Wilcoxon, B. Psychological aspects of female college athletes. Unpublished masters project, Arizona State University, 1977.

Zuckerman, M., & Allison, S. An objective measure of fear of success: Construction and validation. Journal of Personality Assessment, 1976, 40(4), 422-430.

Zuckerman, M., & Wheeler, L. To dispel fantasies about the fantasy-based measure of fear of success. Psychological Bulletin, 1975, 82(6), 932-946.

APPENDIX A

PERSONAL ATTRIBUTES QUESTIONNAIRE

PERSONAL ATTRUBITES QUESTIONNAIRE

The items below inquire about what kind of a person you think you are. Each item consists of a pair of characteristics, with the letters A-E between. For example:

Not at all artistic A....B....C....D....E Very artistic

Each pair describes contradictory characteristics; that is, you cannot be both at the same time, such as very artistic and not at all artistic.

The letters form a scale between the two extremes. You are to choose a letter which describes where you fall on the scale. For example, if you think you have no artistic ability, you would choose A. If you think you are pretty good, you might choose D. If you are only medium, you might choose C, and so forth.

Now go ahead and answer the questions on the answer sheet. Be sure to answer every question, even if you are not sure.

1. Not at all aggressive A....B....C....D....E Very aggressive
2. Not at all independent A....B....C....D....E Very independent
3. Not at all emotional A....B....C....D....E Very emotional
4. Very submissive A....B....C....D....E Very dominant
5. Not at all excitable in a major crisis A....B....C....D....E Very excitable in a major crisis
6. Very passive A....B....C....D....E Very active
7. Not at all able to devote self completely to others A....B....C....D....E Able to devote self completely to others
8. Very rough A....B....C....D....E Very gentle
9. Not at all helpful to others A....B....C....D....E Very helpful to others
10. Not at all competitive A....B....C....D....E Very competitive

11. Very home oriented A....B....C....D....E Very worldly

12. Not at all kind A....B....C....D....E Very kind

13. Indifferent to other's approval A....B....C....D....E Highly needful of other's approval

14. Feelings not easily hurt A....B....C....D....E Feelings hurt easily

15. Not at all aware of feelings of others A....B....C....D....E Very aware of feelings of others

16. Can make decisions easily A....B....C....D....E Has difficulty making decisions

17. Gives up very easily A....B....C....D....E Never gives up easily

18. Never cries A....B....C....D....E Cries very easily

19. Not at all self-confident A....B....C....D....E Very self-confident

20. Feels very inferior A....B....C....D....E Feels very superior

21. Not at all understanding of others A....B....C....D....E Very understanding of others

22. Very cold in relations with others A....B....C....D....E Very warm in relations with others

23. Very little need for security A....B....C....D....E Very strong need for security

24. Goes to pieces under pressure A....B....C....D....E Stands up well under pressure

APPENDIX B

FEAR OF SUCCESS SCALE

FEAR OF SUCCESS SCALE

In this questionnaire you will find a number of statements. For each statement a scale from 1 to 7 is provided, with 1 representing one extreme and 7 the other extreme. In each case, indicate the answer on the answer sheet by choosing a number from 1 to 7 to show whether or not you agree with the statement. This is a measure of personal attitudes. There are no right or wrong answers. Please answer all items, even if you are not sure.

1. I expect other people to fully appreciate my potential
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

2. Often the cost of success is greater than the reward.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

3. For every winner there are several rejected and unhappy losers.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

4. The only way I can prove my worth is by winning a game or doing well on a task.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

5. I enjoy telling my friends that I have done something especially well.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

6. It is more important to play the game than to win it.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

7. In my attempt to do better than others, I realize I may lose many of my friends.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

8. In competition I try to win no matter what.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

9. A person who is at the top faces nothing but a constant struggle to stay there.
   (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

10. I am happy only when I am better than others.
    (agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

11. I think "success" has been emphasized too much in our culture.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

12. In order to achieve one must give up the fun things in life.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

13. The cost of success is overwhelming responsibility.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

14. Achievement commands respect.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

15. I become embarrassed when others compliment me on my work.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

16. A successful person is often considered by others to be both aloof and snobbish.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

17. When you're on top, everyone looks up to you.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

18. People's behavior changes for the worst after they become successful.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

19. When competing against another person, I sometimes feel better if I lose than if I win.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

20. Once you're on top, everyone is your buddy and no one is your friend.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

21. When you're the best, all doors are open.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

22. Even when I do well on a task, I sometimes feel like a phony or a fraud.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

23. I believe that successful people are often sad and lonely.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

24. The rewards of a successful competition are greater than those received from cooperation.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

25. When I am on the top the responsibility makes me feel uneasy.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

26. It is extremely important for me to do well in all things that I undertake.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

27. I believe I will be more successful than most of the people I know.
(agree) 1.....2.....3.....4.....5.....6.....7 (disagree)

APPENDIX C

INSTRUCTIONS FOR SHOOTING TESTS

INSTRUCTIONS FOR SHOOTING TEST

Alone condition: Starting position is at the foul line. On signal to begin, shoot for the basket. Run and retrieve the basketball and continue shooting until you have completed 20 successful baskets. The timer will count out loud the number of baskets as you make them. After you have completed the 20th basket, retrieve the basketball and dribble back to the foul line as fast as you can. You may use any type of shot and you may get as close to the basket as you like. This is a timed drill, so shoot as fast as you can. You will have two trials. The timer will announce the trial times to you.

Same-sex and opposite-sex player conditions: Starting position is at the foul line. On signal to begin, shoot for the basket. Run and retrieve the basketball and continue shooting until you have completed 20 successful baskets. The timer will count out loud the number of baskets as you make them. After the 20th basket, retrieve the basketball and dribble back to the foul line as fast as you can. You may use any type of shot and get as close to the basket as you like. You are competing against the person at the other side basket, so shoot as fast as you can and try to complete the task before your opponent does. This is a timed drill, so do not stop until you have completed the task even if your opponent finishes before you do. You will have two trials. The timer will announce the trial times to both you and your opponent.

APPENDIX D

INFORMED CONSENT FORM

INFORMED CONSENT FORM

I hereby agree to participate as a volunteer in this investigation, a part of an educational research program of The University of North Carolina at Greensboro. My participation will involve taking two paper and pencil surveys and participating in three basketball shooting tests.

I understand that my identity and my answers on the surveys will remain confidential. I also understand that the surveys have no right or wrong answers.

I am free to ask any questions necessary to increase my understanding of my part in this investigation and I am free to withdraw my consent and terminate my participation at any time.

_____ _____

Subject's Signature Date

Age_____

Year in School_____

APPENDIX E

RAW DATA

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
1	1	16	24	21	92	66.799	42.099	65.049
2	1	15	25	20	122	104.849	49.899	48.700
3	1	14	20	21	98	82.299	57.849	52.500
4	1	16	21	25	80	61.549	41.200	47.149
5	1	14	27	26	102	61.200	60.500	65.549
6	1	16	29	20	130	84.849	45.500	78.000
7	1	17	26	23	90	52.500	43.000	45.950
8	1	16	24	27	100	63.250	52.950	57.899
9	1	16	23	23	108	71.399	62.750	61.649
10	1	17	25	27	115	68.399	48.599	61.500
11	2	18	25	25	112	108.750	38.849	46.649
12	2	15	24	23	107	86.649	43.000	44.250
13	2	16	27	28	102	44.000	36.149	39.599

*SOF = Sex-role Orientation Femininity Scale
SOM = Sex-role Oreintation Masculinity Scale
FOS = Fear of Success Scale

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
14	2	15	24	29	107	46.750	40.700	47.450
15	2	16	23	20	115	43.000	44.500	41.849
16	2	15	19	26	106	51.450	41.149	41.049
17	2	16	23	23	106	83.500	31.500	32.200
18	2	16	18	14	109	63.500	49.200	47.349
19	2	18	20	21	102	64.500	43.299	40.799
20	2	16	23	20	105	47.750	36.299	41.299
21	2	15	24	17	120	90.299	41.399	57.700
22	2	15	21	27	88	61.500	39.299	45.000
23	1	15	24	26	106	68.250	87.799	111.000
24	1	16	26	21	84	61.250	49.549	51.450
25	1	17	21	26	90	57.200	62.700	98.299
26	1	16	20	20	111	66.599	65.120	57.049
27	1	17	24	26	96	50.399	44.649	46.349

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
28	1	16	26	20	109	51.000	59.200	59.200
29	1	14	27	21	96	54.500	59.849	50.549
30	1	14	26	23	104	63.549	66.049	62.700
31	1	15	26	23	110	59.599	49.250	63.000
32	1	16	29	27	88	57.149	68.099	56.000
33	1	14	19	20	109	60.450	990.000	72.599
34	1	16	16	19	135	38.649	49.299	48.399
35	2	15	26	26	104	53.250	44.450	41.950
36	2	17	16	19	104	33.599	41.450	38.549
37	2	16	21	22	100	35.299	35.149	37.099
38	2	16	21	25	109	42.500	54.250	54.250
39	2	16	20	20	120	38.000	40.049	37.399
40	2	16	22	22	104	40.599	43.099	43.500
41	2	18	25	24	77	43.099	38.899	38.250

DESCRIPTIVE STATISTICS – SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
42	2	17	17	24	93	33.250	35.450	49.599
43	2	17	16	23	91	54.500	42.349	42.000
44	2	16	23	22	105	33.849	46.000	41.899
45	2	15	27	30	108	42.299	37.250	43.799
46	2	17	21	23	111	54.500	50.500	40.099
47	1	16	25	27	105	44.700	45.349	53.000
48	1	15	25	23	110	990.000	67.250	51.500
49	1	17	24	21	116	72.899	54.500	65.599
50	1	17	26	21	138	49.549	49.049	48.649
51	1	15	30	29	107	47.799	45.899	49.200
52	1	16	21	23	123	64.649	56.549	50.250
53	1	17	24	24	106	75.549	58.549	50.750
54	1	15	26	27	75	52.649	45.200	55.899
55	1	15	21	20	96	61.899	55.549	52.049

DESCRIPTIVE STATISTICS – SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
56	1	16	19	18	97	47.250	46.149	39.200
57	1	17	21	22	94	57.049	51.000	57.149
58	1	17	20	11	116	52.750	49.250	52.799
59	1	17	18	30	93	49.000	51.950	44.649
60	1	15	26	30	107	67.899	59.799	58.200
61	1	17	22	25	117	42.149	41.750	40.649
62	1	15	22	25	114	74.399	59.099	64.799
63	1	15	25	20	93	60.599	72.649	70.349
64	1	16	24	25	104	40.500	39.700	42.399
65	1	15	20	23	110	54.299	47.399	46.950
66	1	15	19	19	106	59.549	56.500	52.599
67	1	17	19	18	132	50.299	45.599	38.250
68	1	15	27	21	110	62.200	70.500	53.099
69	1	16	24	21	82	43.599	47.049	42.549

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
70	1	18	27	22	124	40.450	36.599	38.799
71	1	16	17	21	119	38.750	38.750	43.149
72	2	18	12	17	102	40.500	38.149	990.000
73	2	16	24	28	130	38.950	33.049	33.950
74	2	17	21	20	92	45.750	33.450	42.149
75	2	17	19	15	103	46.049	36.149	43.950
76	2	17	21	26	95	36.950	40.549	40.349
77	2	17	27	26	70	39.750	34.649	36.649
78	2	17	22	29	99	38.239	43.049	35.599
79	2	17	30	27	113	33.250	38.149	36.500
80	2	16	27	30	87	39.700	36.750	37.349
81	2	16	13	26	100	43.799	49.049	50.700
82	2	17	17	23	116	41.349	44.149	38.500
83	2	16	28	26	109	47.250	42.899	41.250

DESCRIPTIVE STATISTICS – SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
84	2	16	20	20	106	32.200	33.000	35.549
85	2	17	20	24	108	39.849	38.450	45.549
86	1	17	26	18	95	55.599	59.500	50.099
87	1	15	24	21	104	79.299	69.200	56.750
88	1	16	23	23	114	62.250	66.399	55.750
89	1	18	22	23	111	50.750	44.099	44.149
90	1	15	25	24	80	62.700	63.599	59.500
91	1	16	23	22	109	70.549	55.349	54.549
92	1	16	30	24	111	53.099	57.500	57.450
93	1	16	25	22	125	45.750	45.200	46.000
94	1	15	22	22	120	42.450	52.750	51.349
95	1	17	18	17	111	51.099	49.000	47.649
96	1	16	27	24	110	46.649	149.500	68.500
97	1	15	22	25	95	38.200	39.200	41.000

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
98	2	17	22	20	134	45.149	34.899	39.700
99	2	16	29	25	62	44.549	40.950	39.200
100	2	17	24	30	83	45.500	43.700	39.599
101	2	17	22	24	112	38.299	37.500	39.299
102	2	17	21	19	97	36.700	42.899	35.799
103	2	17	28	24	105	41.250	46.700	39.149
104	2	17	27	20	90	33.649	33.599	35.250
105	2	17	23	27	105	35.299	35.500	38.649
106	2	15	19	23	102	44.799	39.099	52.000
107	2	18	32	29	129	39.450	36.250	33.700
108	2	16	23	18	104	43.250	44.599	71.250
109	2	16	21	17	93	39.599	990.000	37.899
110	1	17	23	24	92	62.200	57.149	53.649
111	1	16	22	22	117	59.950	52.450	50.549

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
112	1	16	26	20	94	55.399	53.799	46.250
113	1	15	19	18	101	80.049	79.599	64.000
114	1	17	20	25	94	50.799	53.450	52.450
115	1	17	28	16	111	44.149	43.200	46.000
116	1	17	21	19	103	46.099	39.750	48.450
117	1	16	28	16	84	63.549	66.149	56.700
118	1	17	29	27	88	46.200	51.950	77.399
119	1	17	28	26	90	64.750	51.950	85.399
120	1	16	18	18	120	51.899	45.700	63.750
121	1	17	26	20	97	44.500	56.000	44.700
122	2	16	27	24	117	37.200	42.099	46.500
123	2	17	25	22	106	45.149	39.399	37.000
124	2	17	28	24	96	35.349	44.299	40.250
125	2	17	22	26	107	39.500	38.000	43.649

DESCRIPTIVE STATISTICS - SEX ROLE STUDY

(continued)

ID	SEX	AGE	SOF*	SOM*	FOS*	ALONE	SAME	OPPOSITE
126	2	16	24	20	97	40.799	35.200	43.500
127	2	17	19	23	108	32.899	48.349	38.899
128	2	16	20	23	93	39.849	36.200	42.849
129	2	18	25	24	108	32.549	32.649	34.549
130	2	16	26	25	85	34.200	36.099	40.750
131	2	17	21	21	100	58.750	48.799	54.099
132	2	17	20	14	92	45.200	36.750	49.049
133	2	16	26	26	91	35.200	38.200	37.250