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Sex Role Orientation and Self-Esteem of Female Varsity Athletes, Recreational Athletes and Nonathletes

Jo Ann Utley

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SEX ROLE ORIENTATION AND
SELF-ESTEEM OF FEMALE VARSITY ATHLETES,
RECREATIONAL ATHLETES, AND NONATHLETES

A Thesis
Presented to
the Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

in Partial Fulfillment of the
Requirements for the Degree
Master of Arts

by
Jo Ann Utley
August 1988
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Sex Role Orientation and Self-Esteem of Female Varsity Athletes, Recreational Athletes, and Nonathletes

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Approved September 6, 1988
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Dean of the Graduate College
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Of course, I would like to thank my family and friends for their belief and support during some very trying times.
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5. Frequencies and Percentages of Varsity Athletes, Recreational Athletes, and Nonathletes in Each SEI Category .......................................................... 29
The relationship between athletic participation, sex role orientation, and self-esteem has received little attention from researchers, and the relationship of these variables among females has not received as much attention as it has among males. It has been theorized that participation in sports, particularly team sports, may effect an increase in self-esteem due to increased positive body image and tend to "masculinize" women and/or attract females who possess or value more masculine traits and behaviors.

To address these issues, a comparison of sex role orientation and level of self-esteem was made with female varsity athletes, recreational athletes, and nonathletes at Western Kentucky University. The instruments utilized in the study were the Bem Sex Role Inventory, the Coopersmith Self-Esteem Inventory, and an activity instrument on which the women indicated activities in which they had participated since and including the ninth grade. The activity instrument also asked for certain demographic
information. The three groups of women were matched according to age, socioeconomic status and marital status.

Significant differences were found between the three groups on sex role orientation. There was a much larger proportion of varsity athletes classified as androgynous when compared to the recreational athletes and nonathletes. In addition, a larger proportion of nonathletes was classified as feminine, and fewer were classified as masculine when compared to the varsity and recreational athletes. Indicated was a trend for an increasing number of females to be classified as androgynous and masculine as athletic participation increased.

No significant differences were found between the groups with regard to level of self-esteem. Possible explanations for the findings are explored.
CHAPTER I
Introduction

Problem

In the past 30 years there has been considerable research on the personality characteristics or traits of athletes, particularly male athletes. The studies have differed widely in instrumentation (Miller & Miller, 1985; Overman & Prakasa Rao, 1981; Pestonjee, Singh, Singh, & Singh, 1981), methodology (Prakasa Rao & Overman, 1980; Vickers, Lashuk, & Taerum, 1980; Worrel, 1978), variables studied (Bredemeier, 1985; Rowley, 1987; Sage & Loudermilk, 1979; Scanlan & Passer, 1980), and type of athletes (Geron, Furst, & Rotstein, 1986; Kirkcaldy, 1982; Mehrabian & Bøkkken, 1986). Team athletes have been compared to individual sport athletes (Tennebaum & Furst, 1985), and both groups have been compared to nonathletes (O'Connor & Webb, 1976). In general, significant differences in the personality characteristics of varsity team athletes, varsity individual sport athletes, and nonathletes (Kumar, Pathak, & Thakur, 1985) have been reported as well as significant differences among athletes who participate in various sports (Balazs, 1975).

The outcome reached by reviewing the literature has been that the findings have been conflicting and
inconclusive perhaps due to inadequate sample size, lack of representative sampling, and use of nonstandardized instruments (O'Connor & Webb, 1976). The use of outdated ideas about sex role orientation and the lack of knowledge of its effect on personality (Chalip, Villiger, & Duignan, 1980) also add to the confusion. The next section contains background relevant to the investigation of personality variables of varsity athletes, recreational athletes, and nonathletes, with particular emphasis on sex-role orientation and self-esteem.
CHAPTER II

Literature Review

Sex role orientation

Sex Role Orientation Defined

One area in sports psychology that is receiving attention due to the increasing number of women involved in sports is that of sex role orientation. Sex role is defined as learned behavior and traits (masculine/feminine) that are independent of sex/gender (male/female) (Larsen & Seidman, 1986; Storms, 1979). Earlier conceptions of masculinity and femininity were that they were bipolar or unidimensional—that the two were opposite ends of the same continuum. Thus, a person high in masculinity was automatically low in femininity and vice versa. More recent research (Constantiople, 1973; Spence, Helmreich, & Stapp, 1975) however, has demonstrated that sex role categories are orthogonal; that is, masculinity and femininity categories represent separate and independent continua.

Therefore, it is possible for an individual to be high or low in both masculinity and femininity or in neither—for both dimensions to be represented somewhat equally. Individuals high in both masculinity and femininity have been labeled androgynous, and according to
the revised scoring procedures advocated by researchers using major sex role inventories such as the Bem Sex Role Inventory and Personal Attributes Questionnaire (Bem, 1977; Kelly & Worrell, 1977; Worrell, 1978), those persons low in both categories are labeled undifferentiated. Previously, all individuals with equal amounts of masculinity and femininity were categorized as androgynous. The differentiation on the androgynous category and the undifferentiated category is based on the significant differences in various personality variables between the persons in those categories (Bem, 1977).

**Sex Role Orientation Research**

Studies of female athletes have found conflicting results as to whether those women are typically sex-typed (e.g., feminine), nonsex-typed (e.g., androgynous or undifferentiated), or cross sex-typed (e.g., masculine). Part of the reason for these findings seems to be the lack of consistency in measurement as well as conflicting theoretical perspectives about sex role orientation. It has been theorized (Colley, Roberts, & Chipps, 1985) that the nonsex-typed and cross sex-typed females have a greater variety of activities and interests than those females who are sex-typed and adhere to traditional sex roles. In their study on athletic participation and sex roles of college males and females, Colley et al. found that among the female team athletes there were as many women categorized as androgynous as feminine while the
individual sport females were predominantly classified as feminine and undifferentiated. Other women who participated in non-competitive individual sports, such as horseback riding and jogging, were categorized mainly as feminine.

Some studies compared athletes, recreational athletes, and nonathletes on sex role orientation. For example, in a study of participation of females in athletics at the college level, Uguccioni and Ballantyne (1980) compared varsity athletes to women who participated regularly in sport on a limited basis and to women who did not participate in competitive athletics. The varsity athletes tended to score primarily in the androgynous and masculine categories, while the recreational athletes were typically feminine. The nonathletes were more often feminine followed by undifferentiated.

Sex role orientation has been investigated in relation to other personality characteristics in order to assess its relationship with those other characteristics. For instance, using the California Psychological Inventory (CPI) and the BSRI, Harris and Schwab (1979) compared female college students and found that sex-typed females were similar to their traditional sex role stereotype, while androgynous females were similar to both masculine and feminine stereotypes. Higher masculinity scores were associated with higher scores on the CPI, which indicate better adjustment.
Self-esteem

Self-esteem Defined

When focusing on the female athlete, most researchers have investigated a variety of personality variables (e.g., locus of control, attitude toward women, need for achievement), but only a few have focused on self-concept and subsequent self-esteem. According to Coopersmith (1981), self-esteem is defined as the set of attitudes and beliefs that each individual has about the world and himself/herself. It is a set of expectations about success, acceptance, and personal strength with which the individual responds to the world. An individual's level of self-esteem is believed to be relatively stable over a period of a few years but is subject to momentary or short-lived shifts (up or down) due to drastic changes in an individual's life.

Factors Affecting Self-esteem

Self-esteem has been found to be affected by age and education (Coopersmith, 1981; Wetter, 1975), and socioeconomic status (Snyder & Kivlin, 1975). Physical exercise often leads to enhanced self-concept due to the positive effect on body image (Hellison, 1970; Snyder & Spreitzer, 1976). Studies focusing on female athletes versus nonathletes with regard to self-esteem indicate that participation in sports leads to enhanced self-image. The women's movement has stressed the need for women to become more comfortable with their own bodies, to develop their
physical potential and take control over their bodies (Birrell, 1983). Birrell has stated that this assertion of enhanced image of self due to sport and exercise is one that has received little attention from researchers.

**Athletic Competition and Self-esteem**

Physical well-being, evidenced in strength, appearance, body tone, and actual ability, has been found to be related to self-esteem in males and females. For instance, Snyder and Kivlin (1975) compared female athletes who participated in the 1972 Women's National Intercollegiate Championships in basketball, swimming and diving, gymnastics, and track and field with females who were enrolled in sociology classes at Bowling Green State University. The researchers found that there was a strong positive relationship between athletic involvement and well-being. The athletes also had better feelings about their bodies than did the nonathletes, especially regarding energy level and health.

In a related study Trujillo (1983) investigated the effects of weight training and running exercise programs on the self-esteem of college women. One-third of the women were assigned to the weight training group, one-third to the running group, and one-third to the control group. The women were administered the Tennessee Self-Concept Scale and the BSRI along with two other measures developed by the researchers. Sixteen weeks later the instruments were readministered to the women to assess change, if any. On
the pre-test the majority of the women were classified as androgynous on the BSRI; the same was true on the post-test. In regard to self-esteem, those involved in the two training programs showed significant increases while the control group remained the same. Other studies have shown that women involved in sport activities are higher in need to achieve and need for autonomy (Balazs, 1975) and are higher in tough-mindedness and assertiveness (Mushier, 1972), all of which are related to self-esteem.

In relation to sex roles, the androgynous individual, compared to sex-typed persons, has been consistently shown to have higher levels of esteem, flexibility, and effective behavior (Spence et al., 1975). More recently, researchers have found evidence to support the hypothesis that it is the masculine component, not the feminine component, within androgyny that is the reason for better functioning. Antill and Cunningham (1979) compared 237 college students on three sex role inventories [the BSRI, the ANDRO and Desirability scales from the Personality Research Form (PRF), and the Personal Attributes Questionnaire (PAQ)] and two self-esteem inventories (the Self-Acceptance Scale and the Janis-Field Feelings of Inadequacy Scale). It was found that masculinity was the major contributor to higher self-esteem, whereas femininity was found to have no relationship with higher self-esteem in males and was related to lower self-esteem in women.

In other research regarding the relationship between
sex role categories and self-esteem, Wetter (1975) administered his own self-esteem questionnaire (SEQ) as well as the PRF ANDRO and the BSRI to 550 college students. In addition, the SEQ and the PRF ANDRO were administered to 685 high school students. Overall, the college group scored higher in self-esteem than did the high school group, a finding consistent with reports of other researchers that age is a determinant of self-esteem. However, the differences between high school and college students must be considered when making such a statement. When the college and high school groups were combined, self-esteem scores were highly correlated with masculinity.

In a related study Jones, Chernovetz, and Hansson (1978) utilized the Coopersmith Self-Esteem Inventory (SEI), other measures of personality variables, and the BSRI (Bem's original scoring procedure) in their study of 1404 college students. They found that masculinity was related to flexibility and personal adjustment. The more masculine the females were, the more adaptive, secure, and flexible they were. The feminine females indicated that they would like to change in the direction of increased masculinity, while the androgynous and the masculine-typed females indicated less desire to change.

Another study lends support to the assertion that masculinity is associated with higher self-esteem. Erdwins, Small, and Gross (1980) studied 136 college lev
participants in regard to self-esteem and sex role using the BSRI and the Tennessee Self-Concept Scale. Males showed higher self-esteem (i.e., body image, self-acceptance, and feeling of personal worth) than females. The undifferentiated group had significantly lower self-esteem when compared to the masculine group, but there were no significant differences among the masculine, androgynous, and feminine groups.

In another attempt to clarify the relationship of sex roles to self-concept, Flaherty and Dusek (1980) studied 357 college students. They utilized the BSRI and an inventory made up of 21 bipolar adjectives on which the participants rated themselves, as they were characteristically, on a seven point Likert-type scale. For males masculinity was related to self-esteem, but for females the presence of both masculinity and femininity was related to self-esteem. This finding corresponds to the results of Bem's (1977) study in which self-esteem for females was more related to the integration of masculinity and femininity than to any of the other orientations.

Research Problem

Men have traditionally been encouraged to develop their bodies and physical potential via sports. In contrast, women have been discouraged from engaging in similar athletic behavior because it is generally considered to not be acceptable within the context of the traditional female sex role. With more women entering
sports and sex role stereotypes breaking down, more information is necessary to discern if participation in sports, particularly those in which "masculine" qualities are necessary (e.g., basketball and soccer), has the same meritorious effects for females as it does for males.

Based on the available research literature, it may be hypothesized that team sport athletes differ from individual sport athletes due in part to the negative stereotypes still associated with women participating in team sports--particularly those in which physical contact, aggression, and risk of injury are considered likely. Also, team sports give the participants lessons in cooperative competition where an athlete learns to maximize her potential while helping achieve the goals of the team. Such sports, it has been suggested, tend to "masculinize" women or to attract women who already possess masculine traits and behaviors (Chalip et al., 1980). Team sports also give female athletes opportunities to engage in situations and practice behaviors not usually a part of women's experiences: physical contact with an opponent, aggression, and cooperative face-to-face competition (Birrell, 1983). On the other hand, the individual sports, which are more consistent with traditional sex role stereotypes (e.g., tennis, track, and gymnastics), are expected to include more feminine sex-typed women. Nonathletes would be expected to be more feminine and have lower self-esteem than athletes due to the lack of exposure
to sport activities, training, and physical
development. Women who are recreational athletes would be
expected to more closely resemble the varsity athletes than
nonathletes with regard to sex role orientation and
self-esteem.

The null hypotheses investigated were:
H1: There are no significant differences
between varsity team athletes and varsity
individual sports athletes in sex role
orientation.
H2: There are no significant differences
between varsity athletes, recreational
athletes, and nonathletes in sex role
orientation.
H3: There are no significant differences
between varsity athletes, recreational
athletes, and nonathletes in level of
self-esteem.
CHAPTER III

Method

Participants

The participants consisted of individuals sampled from three groups of women. One group consisted of 31 female intercollegiate varsity team (basketball and volleyball) and individual (tennis, golf, and track) sport athletes at Western Kentucky University. The other two groups were composed of undergraduate females at Western Kentucky University who participated in the study for extra credit, who received feedback regarding their individual performances, and who matched the female athletes with regard to the selected demographics of age, socioeconomic status, and marital status. One group (recreational athletes) was composed of 31 females who had participated in organized sports in high school or college but not at the college varsity level, while the other group (nonathletes) consisted of 31 females who had no experience in organized sports at the high school or college level.

Organized sports was defined as those that are contained within a league with official recognition and officiating such as community softball leagues, intramural basketball, volleyball, football, tennis, etc. All participating females were administered the research
instruments described below and given the opportunity for feedback, but only those individuals who matched the varsity athletes with regard to age, socioeconomic status, and marital status were included in the data analyses.

Instrumentation

Bem Sex Role Inventory (BSRI)

Description. The BSRI is a pencil and paper self-report inventory utilizing a seven point Likert-type scale. It includes a Masculinity scale, a Femininity scale, and a Social Desirability scale. Each scale contains 20 positive adjectives (i.e., traits and behaviors) on which the participant is to rate how well each of the adjectives describes her. The BSRI yields four profiles: masculine (high masculinity-low femininity), feminine (high femininity-low masculinity), androgynous (high masculinity-high femininity) and undifferentiated (low masculinity-low femininity).

Reliability. Reliability in the form of internal consistency using coefficient alpha was found by Bem (1974) to be .80 to .86 for the Masculinity scale, .80 to .82 for the Femininity scale, .75 to .70 for the Social Desirability scale and .85 to .86 for the Androgyny scale. The Masculinity and Femininity scales are independent with correlations ranging from -.02 to .11 for males and -.07 to -.14 for females. With regard to test-retest (i.e., four weeks) reliability the masculinity scale had a correlation of .90, the femininity scale correlated .90, the Androgyny
scale .93, and the Social Desirability scale had a correlation of .89.

The BSRI was normed on the same sample that was used for reliability although Bem later recommended (1981) that researchers develop their own norms, provided their participant groups are sufficiently large and include both males and females. Otherwise, a mean cutoff score of 4.9 on each of the Masculinity and Femininity scales can be used to place the individuals in the respective categories based on a study utilizing the BSRI of 165 females and 124 males within an age range of 13 to 85 (Hyde & Phillis, 1979) as well as the normative data from the BSRI manual.

Validity. Validity has been demonstrated by many studies (cited in Bem, 1981) conducted since the instrument was developed. Bem also compared the BSRI to the California Psychological Inventory (CPI) and the Guilford-Zimmerman Scale, both of which were used in earlier sex role research. Correlations with the CPI Masculinity were -.42 for males and -.25 for females, with the CPI Femininity were .27 for males and .25 for females, and with the CPI Androgyny were .50 for males and .30 for females. When BSRI scores were compared with scores on the Guilford-Zimmerman Masculinity scale, the correlations were .11 for males and .15 for females, on the Femininity scale .04 for males and -.06 for females, and on the Androgyny scale -.04 for males and -.06 for females (Bem, 1974). The BSRI's moderate correlation with the CPI and lack of
correlation with the Guilford-Zimmerman indicates that the BSRI is measuring an aspect not tapped directly by either of the other measures. In 1979 Storms stated that the BSRI is more a measure of sex role identity than sex role attributes. Kohlberg's theory of sex role identity is defined in Storms article as a firmly established and relatively unchanging identity that guides the acquisition and development of sex role attributes by modeling sex role stereotypes. Sex role identity is hypothesized to be a powerful and central variable in moderating the influence of situational variables and sex role behavior.

**Scoring.** The scoring procedure for the BSRI consists of taking the values (one to seven) selected for each of the 20 adjectives on each scale and finding a mean for each individual in each group for the Masculinity scale and for the Femininity scale. For samples consisting of one sex, Hyde and Phillis (1979) and Bem (1981) advocated the use of a mean cutoff score of 4.9 for both the Masculinity scale and the Femininity scale. An individual with a mean of or above 4.9 on the Masculinity scale but a mean of less than 4.9 on the Femininity scale was categorized as masculine. An individual with a Masculinity mean below 4.9 but a mean of or above 4.9 on the Femininity scale was categorized as feminine. An individual with Masculinity and Femininity scale means at or above 4.9 on both scales was considered androgynous. An individual whose means were below the cutoff scores on both scales was placed in the
undifferentiated category. A summary of the sex role scoring procedure is presented in Table 1. Each participant was categorized regarding her sex role orientation based on her raw scores.

Coopersmith Self-Esteem Inventory (SEI)

**Description.** The SEI is a pencil and paper self-report instrument which consists of short statements to which the participant indicates a choice of "like me" or "unlike me". The instrument samples the individual's attitude about herself in social, school, family, and personal areas. By sampling across the four areas, the SEI allows for variation in the individual's perception of self-esteem. There are three forms: the School Form, the School Short Form, and the Adult Form. The Adult Form (ages 16 and over) consists of 25 items that were adapted from the School Short Form to make the inventory more meaningful to adults. The School Short Form was developed by choosing the 25 items that showed the highest item-total correlations on the original School Form.

**Reliability.** According to the manual, the School Form and the School Short Form correlate .86 on total score. The Adult form correlates .80 with the Short School Form. On a sample of 226 college students (ages 16 to 34) the internal consistency measured by Chronbach alpha on the Adult Form ranged from .78 to .85. For the 16-19 year old group the alpha was .80, for the 20-34 year old group it
Table 1

Sex Role Categories and Cutoff Means

<table>
<thead>
<tr>
<th>Masculinity Scale</th>
<th>Above 4.9</th>
<th>Below 4.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 4.9</td>
<td>Androgynous</td>
<td>Feminine</td>
</tr>
<tr>
<td>Below 4.9</td>
<td>Masculine</td>
<td>Undifferentiated</td>
</tr>
</tbody>
</table>
was .81, and overall reliability was .81.

Stability of the SEI has been demonstrated via test-retest reliability. The studies reported below are contained in the SEI manual. Coopersmith originally reported test-retest reliability to be .88 for fifth grade children tested after a five week interval and .70 for another sample of children tested over a three year interval. In another study a coefficient of .64 was reported in a study of fifth and sixth grade children tested at a one year interval. In a three-year longitudinal study of school age children (ages nine, twelve, and fifteen) those children tested at age twelve and again at age fifteen yielded greater consistency (.64) than those tested at age nine and again at twelve (.42). The author concluded that self-esteem becomes more stable as the individual moves into adolescence. In a study of college students a coefficient of .80 for males and .82 for females were reported. Thus, there is evidence that the SEI consistently measures its domains and that the construct remains stable over time. However, some researchers urge caution when testing the stability of an affective construct due to the effect that drastic changes in an individual's life may have on the affect.

Validity. Most of the validation of the SEI has been on the School Form. Because the forms are so highly correlated, the validation studies on the School Form also serve as validation of the Adult Form. According to the
manual (Coopersmith, 1981) one researcher studied 7600
children (grades 4 to 8) and confirmed the construct
validity of the SEI. Other researchers cited in the manual
performed factor analyses of the SEI and revealed four
bipolar factors which seemed to be congruent with the SEI
subscales when administered to younger school children,
high school students, and college students. Other studies
listed indicate construct validity, concurrent validity as
well as predictive validity of the SEI. In a critique of
the SEI Adair (1984) indicated that the SEI is a acceptably
valid measure of self-esteem.

Scoring. The SEI takes less than two minutes to score
using the Adult Form template. By placing the template
next to the answer sheet, the scorer can obtain a quick
count of the number correct. The total correct is then
multiplied by four. A total score of 100 is the highest
that can be obtained (4 x 25 =100) and indicates the most
positive level of self-esteem; a total score of zero is the
lowest possible score (4 x 0 = 0) and indicates the most
negative appraisal of self-esteem. The manual contains a
sample of norms for the Adult Form but suggests that
researchers establish their own norms based on their
samples or use quartiles to establish levels of
self-esteem. For example, the upper quartile would
indicate high self-esteem, the lower quartile would
indicate low self-esteem, and those in the middle would be
considered to have medium self-esteem.
**Procedure**

The groups were tested together whenever possible in a classroom. However, some participants were not able to attend scheduled groups and were tested in smaller groups at different times. In addition to the two instruments they were to complete, all participants were instructed to fill out an activity and demographic instrument (see Appendix) asking for age, socioeconomic status (father's and mother's education and occupation), and marital status, in addition to three areas of activities in which they may have engaged. The order of the three instruments within the package was counterbalanced. The participants were told that the purpose of this research was to "learn about the personality characteristics of women that are related to certain activities".

Participants in the recreational athlete and nonathlete groups were chosen from a pool of students who had been approached earlier during regular classtime and asked to sign up to participate in research for extra credit. They were contacted by phone, briefed regarding the nature of the research, and asked if they wished to participate. Additional students were approached in the same manner until an adequate number of matches were made across all three groups.

The researcher read the following instructions aloud to the groups while the participants read them silently:

"The purpose of this study is to look at personality
characteristics of women that are related to certain activities. **DO NOT** place your name anywhere on the handout. All responses are anonymous and will remain confidential. In order for this research to be valid PLEASE answer all items honestly and completely. Those wishing information on their individual performances will be given that opportunity. In order to qualify for individual feedback please follow the next directions carefully. A sheet of numbers will passed around. Choose a number from the list and place your name and phone number on the line next to the number. Then write that number on the top right hand corner of your handout. **DO NOT** put your name on the handout.

Read the directions on each instrument carefully and fill out all items completely. Fill out the instruments in the order they are presented in your packet and be sure to check the backs of the instruments as two of them are front and back. When you get to the activity instrument fill it out completely for any listed activity you have participated in by marking the appropriate answers. These are in reference to activities you have participated in since and including the ninth grade to the present. If you have any questions let me know, and I'll answer them for the whole group."
CHAPTER IV

Results

Sex Role Analysis

Other studies of sex role have ignored individuals who are classified in the undifferentiated category due to the low percentage of persons who generally score in this category (Bem, 1977). An examination of the sex role orientation data (see Table 2) revealed a similar finding in the present sample. Therefore, the remaining analyses were based only on the individuals classified as being masculine, feminine, and androgynous.

Hypothesis 1

Null Hypothesis: There are no significant differences in the distribution of sex roles between the varsity team athletes and the varsity individual athletes.

The sex role orientation of the team and individual sport athletes are summarized in Table 3. There was no statistical evidence, utilizing Chi-square and Lambda, that the two groups of athletes differed significantly in terms of their sex role orientations. Therefore, the null hypothesis was accepted as being true and the team and individual athlete groups were combined into one group for the statistical analyses of the remaining null hypotheses.
### Table 2

**Observed Frequencies of Groups By Sex Role Category and Overall Percentages of Individuals in Each Category**

<table>
<thead>
<tr>
<th>Sex Role Category</th>
<th>Varsity Athletes</th>
<th>Recreational Athletes</th>
<th>Nonathletes</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Androgynous</td>
<td>20 (21.5%)</td>
<td>14 (15.0%)</td>
<td>7 (7.5%)</td>
<td>44.0%</td>
</tr>
<tr>
<td>Masculine</td>
<td>7 (7.5%)</td>
<td>7 (7.5%)</td>
<td>1 (1.0%)</td>
<td>16.0%</td>
</tr>
<tr>
<td>Feminine</td>
<td>2 (2.0%)</td>
<td>10 (10.7%)</td>
<td>18 (19.0%)</td>
<td>31.7%</td>
</tr>
<tr>
<td>Undifferentiated</td>
<td>2 (2.0%)</td>
<td>0 (0.0%)</td>
<td>5 (5.0%)</td>
<td>7.0%</td>
</tr>
<tr>
<td><strong>Column Totals</strong></td>
<td><strong>31 (33.0%)</strong></td>
<td><strong>31 (33.2%)</strong></td>
<td><strong>31 (32.5%)</strong></td>
<td><strong>98.7%</strong></td>
</tr>
</tbody>
</table>
Table 3

Observed Frequencies of Sex Role Categories for Team and Individual Sport Athletes

<table>
<thead>
<tr>
<th></th>
<th>Team Sport Athletes</th>
<th>Individual Sport Athletes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Androgynous</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Masculine</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Feminine</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>
Hypothesis 2

Null Hypothesis: There were no significant differences between varsity athletes, recreational athletes, and nonathletes in sex-role orientation.

A significant difference in the distribution of sex-roles between varsity athletes, recreational athletes, and nonathletes was found, \( \chi^2(4) = 24.48, p < .01 \). A much larger proportion of varsity athletes tended to be classified as androgynous as compared to the recreational athletes (refer to Table 4). In addition, a larger proportion of nonathletes were classified as feminine and fewer were classified as masculine compared to the varsity athletes and recreational athletes.

Hypothesis 3

Null Hypothesis: There were no significant differences between varsity athletes, recreational athletes, and nonathletes in level of self-esteem.

This hypothesis was examined with two analyses. The individuals were categorized as having low, medium, or high self-esteem based on quartiles. Those scoring below the first quartile were categorized as having low self-esteem while those individuals receiving scores above the third quartile were categorized as having high self-esteem. Those individuals receiving scores between the first and third quartiles were categorized as having medium self-esteem. First, using a Chi-square analysis no significant differences were found between the groups with
Table 4  
Percentages of Athletes, Recreational Athletes, and Nonathletes in Each Sex Role Category

<table>
<thead>
<tr>
<th></th>
<th>Varsity Athletes</th>
<th>Recreational Athletes</th>
<th>Nonathletes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Androgynous</td>
<td>69.0%</td>
<td>45.1%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Masculine</td>
<td>24.1%</td>
<td>22.6%</td>
<td>0.04%</td>
</tr>
<tr>
<td>Feminine</td>
<td>0.07%</td>
<td>32.2%</td>
<td>69.2%</td>
</tr>
<tr>
<td>Totals</td>
<td>93.17%</td>
<td>99.9%</td>
<td>96.14%</td>
</tr>
</tbody>
</table>
regard to self-esteem, \( \chi^2(4) = 1.60, \ p > .05 \). Asymmetric Lambda analysis also indicated that self-esteem could be used with very little power to predict group membership (asymmetric Lambda = .05) and group membership could not be used to predict level of self-esteem (asymmetric Lambda = .00). Therefore, based on this analysis, the null hypothesis was accepted as true. The majority of individuals in each group received scores that placed them in the medium self-esteem category. Percentages of each group in each SEI category (high, medium, and low) can be found in Table 5.

An analysis of variance was also conducted to test the self-esteem hypothesis. There were no significant differences among the groups on the SEI, \( F(2,83) = .53, \ p > .05 \). Table 6 presents the means on the SEI for each group as well as the associated standard deviations and ranges of scores.
Table 5

Frequencies and Percentages of Varsity Athletes, Recreational Athletes, and Nonathletes in Each SEI Category

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varsity Athletes</td>
<td>10 (34.4%)</td>
<td>14 (48.2%)</td>
<td>5 (17.2%)</td>
<td>99.8%</td>
</tr>
<tr>
<td>Recreational Athletes</td>
<td>7 (22.5%)</td>
<td>17 (54.8%)</td>
<td>7 (22.6%)</td>
<td>99.9%</td>
</tr>
<tr>
<td>Nonathletes</td>
<td>7 (26.9%)</td>
<td>12 (46.2%)</td>
<td>7 (26.9%)</td>
<td>100.0%</td>
</tr>
<tr>
<td>Category</td>
<td>Means</td>
<td>Standard Deviation</td>
<td>Minimum-Maximum Values</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>--------------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>Varsity Athletes</td>
<td>76.2</td>
<td>17.0</td>
<td>40.0 - 100.0</td>
<td></td>
</tr>
<tr>
<td>Recreational Athletes</td>
<td>72.8</td>
<td>18.0</td>
<td>28.0 - 100.0</td>
<td></td>
</tr>
<tr>
<td>Nonathletes</td>
<td>71.5</td>
<td>17.8</td>
<td>36.0 - 96.0</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER V
Discussion

Sex Role Orientation

The literature suggests that there are significant differences between team and individual sport athletes with regard to sex role orientation. The team athletes are expected to be more "masculine" than the individual sport athlete. The present study provided no evidence of significant differences with regard to sex role orientation between the groups.

However, there were indeed major differences between the varsity athlete, recreational athlete, and nonathlete groups regarding how they were distributed across the sex role categories. Indicated was a trend in the direction of increasing amounts of androgynous and masculine sex-typed females as degree of sports participation increased. The reasons for these observed differences are not clear. A possible explanation for this outcome may be that the athletes did indeed "self-select" themselves into their respective sports (Mushier, 1972) due to possessing the more masculine characteristics and/or behaviors that are valued in sports. Another possibility may be that since no criterion was set for minimum length of participation in sports, that those who participated only a short time may
have affected the results. That is, the college varsity athlete would have had to participate in sports for several years prior to college to even make the team. A recreational athlete; however, may have been participating in an organized sport for a short period of time and may have been participating for very different reasons than the varsity athlete. The recreational athlete who had participated in sports for several years may be different from the recreational athlete who had participated in organized sports for only a few months. There is also the probability that engaging in a sport for an extended length of time would teach the female to value the male-oriented structure and values of sports and to adopt them as her own. Thus, the participation might "masculinize" her to an extent, although it may not be the primary reason that the athletes are underrepresented in the feminine category. There may be an interaction between the two theories (masculinization vs self-selection) that might account for this phenomenon.

**Self-esteem**

There were no significant differences among the groups regarding self-esteem. The majority of the individuals in the sample clustered in the medium self-esteem level with considerable overlap in scores of the groups. Thus, while sex role orientation appears to differentiate among the groups, self-esteem scores do not. Based on the literature it was expected that the varsity athletes and recreational
athletes would be similar with regard to level of self-esteem due to increased body image and subsequent increase in self-concept and self-esteem. However, participation in sports as defined in this study was not able to differentiate between the athletes and nonathletes based on self-esteem. Based on the data gathered in this research today's "nonathletic" female (as defined here) is involved in other activities such as aerobics, jogging, or weight training but not in any organized capacity. Thus, the nonathlete in this study is engaging in physical activities that lead to enhanced body image and, therefore, increased self-esteem. It is also possible that the nonathlete has other sources of self-esteem such as academics, music, journalism, personal experiences, etc. Measures of these other areas need to be made to discern where these women are strengthening their self-concept and to find any possible relation between physical fitness and other nonphysical pursuits.

**Limitations**

The sample used in the present study was a unique one. All athletes were from one university, and it is not known whether different results would have been obtained if individuals from other universities had been sampled. In addition, if additional types of sports (both individual and team) had been sampled, the findings may well have been different. Therefore, the possible lack of representativeness of female varsity athletes is one
limitation in this research. Another major limitation is the relative lack of statistical power for analysis due to the small sample size resulting from the limited number of female varsity athletes available for recruitment. This lack of power was most evident in researching the differences between team and individual sport athletes due to insufficient number of individuals in each category thereby rendering Chi-square analysis invalid. However, measures of association indicated no association between the type of sport and sex role orientation.

One question raised with regard to the nature of the constructs (sex role and self-esteem) measured in the present study is that of stability of the constructs and the instruments chosen to measure them. It is possible that there would be a significant difference in either of the constructs, particularly self-esteem, over an extended period of time. The varsity athlete, in particular, may be prone to highs and lows in self-esteem coinciding with such events as injuries, performance anxiety, or satisfaction that might influence her performance on the instruments on a one-time administration. Though there is evidence that self-esteem can be reliably measured, Coopersmith (1981) has recognized the fact that there may be momentary shifts in level of self-esteem due to drastic changes in the individual's life. The large range of scores in the varsity athlete group is an indication that there was a great amount of variation within the group but the reason
for this variation is not apparent.

Another major limitation of this study was in the definition of the groups. The recreational athlete as defined in this study appears to have been a limited category. Those who may have just missed making a varsity team were categorized with those who may have been playing touch football for three weeks. Future research may need to take into account the motivation and experience level of these women in order to reduce the variation within the group. The definition of the nonathlete also needs to be evaluated and more specifically defined. A person who engaged in no physical activity was categorized as being the same as the bicyclist and individual who participates regularly in aerobics. Based on the data gathered from this "nonathlete" group, it is expected that these persons are very different though there were not enough individuals among this group to perform any meaningful statistical analyses. There is a need for a more restrictive definition of the groups used in this type of research. One possibility may be for the participants to decide for themselves in which category of sports participation they belong.

Also the inventories utilized in this study were self-report instruments. Such measures are based on the premise that each individual is his or her own best observer. However they may also be biased by the individual's knowledge of what may constitute a proper
answer based on experience or stereotypes and willingness
to disclose honestly. Such self-report instruments are
unlike behavioral observations which are based on external
observations of actual behavior. However, self-report
measures are used widely in research, particularly with sex
role and self-esteem, and do have face validity. According
to Kolberg's theory of sex role identity, the individual is
more likely to report true traits and characteristics (as
far as he or she is conscious of them) instead of being
influenced by stereotypes. Thus, when self-report measures
are utilized the researcher must clearly state what the
measure is and use an instrument that has been sufficiently
researched, or provide sufficient data to establish the
psychometric properties of the newer scale.

Future Research

One possibility for future research could be to focus
on the types of activities in which the "nonathletic" woman
engages. The researcher may examine the differences, if
any, between the women who participate in body building
activities (i.e., aerobics, weight lifting, jogging) as
compared to more game/competition oriented activities
(i.e., bowling, raquetball, gymnastics). These women appear
to be engaging in physical activities that could very well
differentiated them from the "true" nonathlete. Based on
the data gathered in this study, future researchers will
want to gather a very large sample in order to find this
true nonathlete. She was greatly underrepresented in this
sample. Most of the individuals were participating in some physical exercise, though not at an organized level as defined in this study. One idea for a study of this kind might be to compare these "nonathletes" versus "true nonathletes" across age levels in order to ascertain if the findings obtained in this study reflect a college phenomenon or are indicative of women in general.

Because of the possibility of temporary shifts in self-esteem of the varsity athlete due to injuries and/or performance concerns, a longitudinal study with several assessments might yield a more stable representation of self-esteem and, hence, a better assessment of the relationship between athletic behavior, self-esteem, and sex role orientation. Those assessments would be best if made at times when the individual is involved in her respective sport and also during the off-season. Other research areas might include the investigation of different sources of esteem besides that of athletic participation and increased positive body image, and the use of a measure specifically designed to measure body image would help the researcher to ascertain if it is indeed an area from which the individual is gathering feelings of positive well-being.

Another possibility for future research would involve a longitudinal study dealing with self-selection into sport. This study might begin when the athletes were beginning to participate in their respective sports and
make periodic assessments in order to ascertain who continued to participate and who chose to discontinue as well as each individual's reasons for continued or discontinued participation in sports.

This research seems to be a first step in investigating the relationship between sex role and self-esteem differences between those who participate in athletics (whatever the level) and those who do not. Indicated is the need for further research and more careful definition of who constitutes each group. A possible reason for the inconsistency found in the literature regarding this area may be due largely in part to the lack of agreement on what constitutes athleticism. Researchers need to specifically state the criterion for inclusion in any group and attempt to replicate previous studies in order to build a strong research base for any conclusions about these areas.
References


The purpose of the study is to look at personality characteristics of women that are related to certain activities. DO NOT place your name anywhere on the handout. All responses are anonymous and will remain confidential. In order for this research to be valid PLEASE answer all items honestly and completely. Those wishing feedback on their individual performances will be given that opportunity. In order to qualify for individual feedback please follow the next directions carefully. A sheet of paper with numbers will be passed around. Choose a number from the list and place your name and phone number on the line next to the number. Then write that number on the top right hand corner of your handout. Do NOT put your name on the handout.
Please answer all items.

Age:
Grade: ___fresman ___sophomore ___junior ___senior ___other

Major:

Marital status: ___single ___married ___divorced ___separated

Father's last grade completed: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 other

Father's occupation:

Mother's last grade completed: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 other

Mother's occupation:

For each of the activities listed please check the box that best gives your answer to the question listed. ALL QUESTIONS REFER TO ACTIVITIES PARTICIPATED IN FROM (AND INCLUDING) THE 9TH GRADE TO THE PRESENT.

<table>
<thead>
<tr>
<th>How often do you engage in: (in season where applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cooking</td>
</tr>
<tr>
<td>knitting</td>
</tr>
<tr>
<td>sewing</td>
</tr>
<tr>
<td>crocheting</td>
</tr>
<tr>
<td>camping</td>
</tr>
<tr>
<td>fishing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How long have/did you engage in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Beta Club</td>
</tr>
<tr>
<td>FHA</td>
</tr>
<tr>
<td>FFA</td>
</tr>
<tr>
<td>Band</td>
</tr>
<tr>
<td>Chorus</td>
</tr>
<tr>
<td>NHS</td>
</tr>
<tr>
<td>Pep Club</td>
</tr>
<tr>
<td>Language Clubs</td>
</tr>
<tr>
<td>DECA</td>
</tr>
<tr>
<td>FBLA</td>
</tr>
<tr>
<td>Sororities</td>
</tr>
<tr>
<td>Fraternities</td>
</tr>
<tr>
<td>Professional Organizations</td>
</tr>
<tr>
<td>4-H</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At what level do/did you engage in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Beta Club</td>
</tr>
<tr>
<td>FHA</td>
</tr>
<tr>
<td>FFA</td>
</tr>
<tr>
<td>Band</td>
</tr>
<tr>
<td>Chorus</td>
</tr>
<tr>
<td>NHS</td>
</tr>
<tr>
<td>Pep Club</td>
</tr>
<tr>
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</tr>
<tr>
<td>DECA</td>
</tr>
<tr>
<td>FBLA</td>
</tr>
<tr>
<td>Sororities</td>
</tr>
<tr>
<td>Fraternities</td>
</tr>
<tr>
<td>Professional Organizations</td>
</tr>
<tr>
<td>4-H</td>
</tr>
</tbody>
</table>
How often do you engage in:
(in season when applicable)

- tennis
- basketball
- volleyball
- softball
- track/field
- cross country
- cheerleading
- weightlifting
- gymnastics
- aerobics
- roller skating
- ice skating
- soccer
- hockey
- frisbee golf
- bicycling
- raquetball
- golf

At what level do/did you engage in:

- tennis
- basketball
- volleyball
- softball
- track/field
- cross country
- cheerleading
- weightlifting
- gymnastics
- aerobics
- roller skating
- ice skating
- soccer
- hockey
- frisbee golf
- bicycling
- raquetball
- golf

How long did you engage in:
(total)

- tennis
- basketball
- volleyball
- softball
- track/field
- cross country
- cheerleading
- weightlifting
- gymnastics
- aerobics
- roller skating
- ice skating
- soccer
- hockey
- frisbee golf
- bicycling
- raquetball
- golf