

Correlates of Female Athletic Participation: Masculinity, Femininity, Self-Esteem, and Attitudes Toward Women

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Self-esteem, psychological masculinity and femininity, and attitudes toward women in female athletes were investigated in an attempt to examine the validity of various stereotypes. Subgroup distinctions based on sport played, level of commitment to athletics, and experience level were also examined. Seventy-one women participating in intercollegiate varsity teams (crew, basketball, squash, and swimming) at a major university in the Northeast were compared with an unselected group of 185 women from the same university. In contrast to previous findings, female athletes were found to be significantly less feminine than their college peers, but not more masculine. In sport-by-sport comparisons, differences were not found. Highly committed athletes were found to be more masculine and more feminine, as well as more profeminist, than low commitment athletes; and experienced athletes also appeared to be the more highly committed ones. Self-esteem and commitment were found to be unrelated, suggesting that the individual can make a strong commitment to athletics without it having an evaluative component. Speculations were made about the athlete of the future and the influence of athletics on self-esteem.

Women's intercollegiate athletics is a new and growing phenomenon on today's college campuses and is part of a nationwide trend for women to be more interested in athletics. With this increase in female participation in sports, there is also renewed interest in the psychological characteristics of the female athlete and the effects of athletics on women.

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For a long time it was thought that women should not participate in athletics because of the potentially harmful "masculinizing" effect of sports. Physical fitness "experts" argued that "competitive sports tend to develop behavior patterns which are contrary to feminine nature" (Gerber, 1974, p. 16). The traditional female role was assumed to be in opposition to natural female development and women who did participate seriously in athletics were assumed to be somehow deviant. Women's bodies and mental health were thought to be unable to deal with the emotional and physical stress and/or the competitive nature of athletics (Gerber, 1974).

More recently researchers have begun to question these claims and, in fact, have argued that athletic activity has potential psychological benefits for women. In a review of the literature, Mushier (1972) noted that many studies have independently concluded that athletic activity promotes positive female personality development, although Mushier also noted that studies have been difficult to compare because they use different personality measures. Snyder and Kivlin (1975) found that female athletes scored higher than nonathletes on measures of psychological well-being and body image. In a study of 24 top female athletes who competed in the 1972 Olympics, Balazs and Nickerson (1976) concluded that the group EPPS profile for the female athletes was well balanced and showed no significant deviations from college student norms, with the exception of two peaks on the needs for achievement and autonomy. The female athletes' group profile also showed somewhat above-average interest in heterosexual experiences.

Comparisons of athletes in different sports have also been made. For example, Peterson, Ukler, and Tousdale (1967) found differences in personality traits between athletes in team and individual sports. On the other hand, Snyder and Kivlin (1975) have suggested that differences among women participating in various sports are breaking down.

Snyder and Kivlin (1975) have also argued that current research raises questions about the validity of negative stereotypes regarding female athletes. One assumption was that if athletic activity promoted psychological masculinity, then it also must deter psychological femininity. Recent research, however, benefits from the notion that psychological masculinity and femininity are not necessarily bipolar constructs (e.g., Constantinople, 1973).

Studying college populations, Spence and Helmreich (1978) found that men and women generally fit their socially prescribed personality attributes. On their Personality Attributes Questionnaire (PAQ), a personality scale containing two orthogonal scales, one tapping instrumental traits (Masculinity or M scale) and the other tapping expressive traits (Femininity or F scale), women scored significantly higher on F and lower on M than men. As a means of representing the conjunction of M and F, Spence and Helmreich used a median split method in which subjects are assigned to a category, above or below the median (both sexes combined), on the two scales. Very few members of either sex fall into the

cross-sex category (i.e., high M—low F or Masculine for women; low M—high F or Feminine for men), the largest percentage tending to fall in the sex-traditional category.

Research on psychological masculinity and femininity in female athletes was first conducted in an attempt to find populations that did *not* fit the general pattern for women. In a comparison of varsity female athletes with an unselected group of University of Texas college women, Helmreich and Spence (1977) found that the female athletes² scored somewhat higher on masculinity and lower on femininity than the college students on the PAQ.

Spence and Helmreich (1978) also found that psychological masculinity correlated significantly with self-esteem on the Texas Social Behavior Inventory (TSBI; Helmreich & Stapp, 1974), a scale which measures a person's social self-esteem based on his/her view of his/her self-confidence and competence in interpersonal situations. This fact led another group of researchers to speculate about levels of self-esteem in female athletics. Harris and Jennings (Note 2) administered measures of psychological masculinity and femininity (PAQ) and self-esteem (TSBI) to a group of female distance runners in an attempt to replicate the Helmreich and Spence (1977) findings with a different population. As expected, Harris and Jennings found that masculinity scores for females athletes were higher than for the college women, but the difference in femininity was not quite as clear. Scholastic runners scored highly on *both* the masculinity and femininity scales, suggesting that the female athlete might be more appropriately described as androgynous. These findings replicated previous results indicating that both femininity and masculinity correlate significantly with self-esteem, with masculinity having a stronger relationship. Androgynous and masculine runners had the highest self-esteem.

Both Spence and Helmreich (1978) and Harris and Jennings (Note 2) focused on groups of highly committed female athletes. Harris and Jennings studied long-distance runners, and it is unclear whether their findings are generalizable to a broader sample of female athletes including those in more traditional female sports. Helmreich and Spence studied women in a number of different sports, but only assessed personality attributes.

Another issue raised by previous research is whether women who participate in athletics are necessarily more profeminist than unselected women. In an interview with 24 American Olympic female athletes, Balazs and Nickerson (1976) found that these women were not particularly feminist and, in fact, were quite conservative. Furthermore, Spence and Helmreich (1978) found that psychological masculinity-femininity and attitudes toward women (on AWS, or Attitudes Toward Women Scale) were related only minimally. Thus, it ap-

²In regard to the Helmreich and Spence study, it is important to keep in mind that varsity athletics for women at the University of Texas is extremely competitive. Women are recruited and selected because of outstanding ability and motivation and they are retained on the basis of outstanding performance (Spence, Note 1).

pears that even if female athletes are found to be more masculine or less feminine, they may not have rejected traditional views regarding the female role.

The purpose of this paper is to investigate psychological masculinity and femininity, self-esteem, and attitudes toward women in a group of female athletes. First, the female athlete will be compared with her college peer. Based on findings from previous research, one would predict that the female athlete should score higher on masculinity, somewhat lower on femininity, and higher in self-esteem than her college peer. Second, athletes who participate in different sports will be compared. Third, levels of commitment and experience will be analyzed as they relate to psychological masculinity and femininity, self-esteem, and attitudes toward women. Finally, changes over time will be examined for a small subsample of female athletes in an attempt to explore possible changes during the course of a season. Results from the present investigation should provide further understanding of female athletes generally, as well as contribute to our knowledge of the personality attributes of masculinity and femininity.

METHOD

Subjects

The subjects were 71 women who participated in intercollegiate, women's varsity teams at a major university in the Northeast. In March 1977 the women were asked to participate in a study of women in athletics and were assured anonymity and confidentiality of their responses. Four sports were included: crew (rowing), basketball, squash, and swimming. In each sport, the women were expected to commit at least two hours each day to training. The response rates for each team were 48.3% of the crew (29 of 60), 81.8% of the squash team (9 of 11), 85% of the basketball team (17 of 20), and 63.6% of the swim team (14 of 22).

Crew was the only sport in which the participant was expected to train all year for that one sport; participants on the other teams often played several different sports. All teams were composed of a mixture of classes with freshmen and sophomores forming the dominant core of most teams.³ All of the sports, except basketball, had a "no-cut" policy, which meant that any woman who chose to stay with the sport could do so irrespective of her position on the team. However, crew was the only sport in which a substantial number of complete novices formed the core of the program. In all the other sports, although

³Over the past two years coaches in several sports at this university have noted a sharp increase in the skill level and conditioning of incoming freshmen, which has been attributed to increased opportunities in athletics for precollege women. As a result, many of the most talented female athletes currently tend to be the freshmen and sophomores. This trend may also be partly due to changes in admissions policies at this university, where athletics is being perceived as more important for women than in previous years.

there were occasionally people who has never played competitively before, everyone had had some prior experience with the sport.

In order to obtain representative scores from an unselected group of college women at the same university, the authors collected data themselves and utilized data available from other sources at the same university.⁴ This sample represents the scores of a total of 185 college women from each of the four classes (freshman through senior) on psychological masculinity and femininity and attitudes-toward-women scores of 94 of these women.⁵

Measures

Personal Attributes Questionnaire (PAQ; Spence Helmreich & Stapp, 1974). Subjects are presented with 24 bipolar items and are asked to rate themselves on a 5-point scale for each item. Separate scores for psychological masculinity and femininity are computed from separate masculinity and femininity subscales. Each subscale score ranges from 0 to 32. Femininity scale items are primarily expressive (Parsons & Bales, 1955) characteristics, and masculinity scale items are primarily instrumental characteristics.

Self-Esteem (TSBI; Helmreich & Stapp, 1974). A subject is asked to rate himself/herself on a five-point scale ranging from "Not at all characteristic of me" to "Very much characteristic of me" on a series of 16 questions which include items such as "Other people look up to me" and "I feel confident of my appearance." This scale is considered a measure of a person's social self-esteem based on his/her view of his/her self-confidence and competence in interpersonal situations.

Attitudes Toward Women. A 15-item version of the Attitudes Toward Women (AWS) scale, developed by Spence, Helmreich, and Stapp (1973) was used. The subjects were asked to respond to each of a series of items describing the rights and roles of women. Each item was scored on a 4-point scale (0 to 3), ranging from "strongly agree" and "slightly agree" to "slightly disagree" and "strongly disagree." An overall score was obtained by summing the individual item scores; the higher the total score, the more "profeminist" the subject.

Commitment. The subject was asked to rate her commitment to athletics on a scale from 1 to 10, with 1 indicating the lowest commitment and 10 the highest.

In addition to these personality and attitudinal measures, the women athletes were asked to provide background information about their experience in athletics.

⁴ The authors wish to express their appreciation to Martina Miller and Judith Harackiewicz for making available additional data on Personality Attributes Questionnaire scores.

⁵ Self-esteem scores cannot be compared. Data is not available for the college women on the TSBI.

RESULTS

Table I presents means and standard deviations for psychological masculinity and femininity, attitudes toward women, and self-esteem for the athletes and control women. A significant difference was found between the female athletes and college students on psychological femininity, $t(254) = 2.43$, $p < .05$, whereas the groups did not differ significantly on psychological masculinity or attitudes toward women. In comparison to their classmates, the female athletes scored lower on femininity, as expected; however, the lack of differences on masculinity was unexpected.

Another way to study the personality attributes of masculinity and femininity is to classify subjects into four categories based on their scores on both the masculinity and femininity scales: *androgynous* (high masculine—high feminine); *masculine* (high masculine—low feminine); *feminine* (low masculine—high feminine); and *undifferentiated* (low masculine—low feminine). The medians used as cutoff points to categorize the subjects are based on norms provided by Spence and Helmreich (1978). Above the median = 21 or above for masculinity and 23 or above for femininity. Table II presents the distribution of women athletes and college students in the present sample across the four categories and also includes comparative data from Spence and Helmreich (1978), Helmreich and Spence (1977), and Harris and Jennings (Note 2).

A chi square was computed for the percentage of female athletes and college students in the present study falling into the four categories. The resulting chi square was not significant. It should be noted, however, that scores for college students in the present study are distributed somewhat differently than the scores for female Texas college students. The present college student sample is slightly more masculine (21.6% versus 14.0%) and somewhat less undifferentiated (20% versus 28%) than the Texas women.

Table I. Means and Standard Deviations for Female Athletes and College Students on Psychological Masculinity, Femininity, Attitudes Toward Women, and Self-Esteem

Variable	Athletes (<i>N</i> = 71)		College students (<i>N</i> = 58)	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Masculinity	21.4	5.0	20.1	4.5
Femininity	21.7	4.6	23.6	4.1 ^a
Attitudes toward women	38.2	6.6	39.8	5.2
Self-esteem	39.5	8.7	—	—

^a $p < .05$.

Table II. Percentage of Women Classified as Androgynous, Masculine, Feminine, and Undifferentiated

Group	N	Androgynous	Masculine	Feminine	Un-differentiated
Present study					
Athletes	71	33.8	25.4	16.9	23.9
College students	185	27.0	21.6	31.4	20.0
University of Texas					
Varsity athletes	41	39.0	31.0	10.0	20.0
College students (Spence & Helmreich, 1978)		27.0	14.0	32.0	28.0
Runners (Harris & Jennings, Note 2)	68	33.8	27.9	17.6	20.6

Sport-by-Sport Comparison

In an attempt to examine possible differences within the female athlete group, comparisons were made on psychological masculinity and femininity, self-esteem, attitudes toward women, and commitment to athletics by sport. Table III presents means and standard deviations for these variables.

One-way analyses of variance (ANOVAs) were computed for each of the personality and attitudinal variables between the four types of sports (crew, squash, swimming, and basketball) and none of the differences was significant. These results suggest that the sport chosen by a female athlete is not related to psychological masculinity and femininity, self-esteem, nor attitudes toward women. As further support for this finding, the majority of women athletes (54 out of 71) indicated that they had played several different sports in addition to the one in which they were currently involved. But it should also be kept in mind that these sport-by-sport comparisons may be less revealing than they might have been because of the very small sample sizes. Differences might

Table III. Means and Standard Deviations for Women Athletes by Sport on Psychological Masculinity, Femininity, Attitudes Toward Women, Self Esteem, and Commitment to Athletics

Variable	Crew			Squash			Swimming			Basketball		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N
Masculinity	20.9	4.6	29	22.1	5.8	9	21.4	5.0	14	21.5	5.5	17
Femininity	21.1	4.5	29	22.1	5.7	9	23.7	3.9	14	22.8	3.5	17
Attitudes toward women	38.5	6.8	29	36.9	6.0	9	35.9	7.2	14	39.8	6.0	16
Self-esteem	39.0	7.6	29	39.4	7.4	9	41.6	10.9	14	38.9	9.9	17
Commitment	7.4	1.6	24	6.6	2.3	6	6.4	2.0	7	8.6	1.1	10

emerge in a larger study or in one using only sports which apply consistent selection rules.

Level of commitment to athletics was investigated in relation to the five personality and attitudinal measures. Table IV presents an intercorrelation matrix for commitment, psychological masculinity, psychological femininity, self-esteem, and attitudes toward women. As can be seen from Table IV, level of commitment was significantly related to masculinity, femininity, and attitudes toward women. The higher the level of commitment, the higher the athlete scored on masculinity, femininity, and profeminist attitudes, but not on self-esteem. Significant correlations were also found between self-esteem and masculinity ($r = .71, df = 71, p < .001$) and femininity ($r = .31, df = 71, p < .01$), replicating findings from previous research (Spence, Helmreich, & Stapp, 1975).

Another way to investigate the relationship between these variables and commitment is to divide the athletes into two levels of commitment: low (3 to 6) and high (7 to 10). Table V presents means and standard deviations for female athletes with low and high levels of commitment on the PAQ, TSBI, and AWS.

t Tests were computed to assess the significance of the differences between the means for the female athletes with high and low levels of commitment. Significant differences were found for psychological masculinity ($t(46) = 3.1, p < .01$) and attitudes toward women ($t(45) = 2.77, p < .01$). Women athletes with higher levels of commitment were significantly more "masculine" (instrumental) and more profeminist in their attitudes toward women. The highly committed athlete also tended to have somewhat higher scores on the femininity scale.

Another important variable in understanding a person's athletic participation at a particular point in time is *experience level*. In the present study, crew

Table IV. Intercorrelation Matrix for Personality and Attitudinal Variables for Female Athletes

Variable	Commitment	Masculinity	Femininity	Self-esteem	Attitudes toward women
Commitment (<i>N</i> = 48)	1.00	.44 ^c	.25 ^a	.15	.29 ^a
Masculinity (<i>N</i> = 71)		1.00	.15	.71 ^c	.15
Femininity (<i>N</i> = 71)			1.00	.31 ^b	.08
Self-esteem (<i>N</i> = 70)				1.00	.07

^a $p < .05$.

^b $p < .01$.

^c $p < .001$.

Table V. Means and Standard Deviations for Athletes with High and Low Levels of Commitment on Psychological Masculinity, Femininity, Attitudes Toward Women, and Self-Esteem

Variable	Low commitment (<i>N</i> = 12)		High commitment (<i>N</i> = 36)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Masculinity	18.0	4.1	22.6	4.5 ^b
Femininity	20.3	6.0	22.5	4.5
Attitudes toward women	33.3	8.3	39.6	6.3 ^b
Self-esteem	37.5	7.2	40.9	7.4

^b*p* < .01.

was the only sport in which large numbers of novices were on the team. Classifying people in the other sports on the basis of experience is more difficult and less clear-cut, since most of the women came to college with varying degrees of experience. Novice and experienced rowers were found to differ significantly in level of commitment ($t(22) = 4.72, p < .001$). Experienced rowers reported significantly higher levels of commitment ($M = 8.5, SD = 1.0$) than novice rowers ($M = 6.2, SD = 1.3$). In interviews with 14 members of the crew, almost all of them indicated that their level of commitment increased over the course of the year as they came to better understand the sport.⁶

Changes over Time

In an attempt to explore the changes that may occur over time in an athlete as she participates in a sport, a small sample of 13 female athletes were tested in both October and March of the 1976-1977 academic year (Colker, Note 3). Although any changes taking place in personality attributes, self-esteem, or attitudes toward women could be due to factors *unrelated* to athletics, it is interesting to note that masculinity, femininity, and attitudes towards women scores stayed relatively constant over the six-month period. Self-esteem scores, on the other hand, rose somewhat during the period from a mean of 38.6 to 41.1.

⁶ Thirteen of the 14 crew members interviewed indicated that their level of commitment related to their ability to be successful in the sport. Athletes who remained uncommitted indicate an unwillingness to make the commitment that success would require. They also indicated that they stayed with athletics because it structured their afternoons and gave them an opportunity to be with other women.

DISCUSSION

The purpose of this article was to investigate self-esteem, psychological masculinity and femininity, and attitudes toward women in female athletes in an attempt to examine the validity of various stereotypes and to investigate potential subgroup distinctions based on sport played, level of commitment to athletics, and experience. Female athletes were found to be significantly less feminine than their college peers, but not more masculine. In contrast to some of the earlier studies, these findings suggest that women who engage in organized sports on a regular basis are not necessarily more masculine than their college peers, and women athletes differ in a relatively minor degree from an unselected group of college women when categorized on the basis of their masculinity and femininity scores on the PAQ.

Despite the fact that the athletes in this study did not differ markedly from their college peers, these women athletes do seem similar to athletes reported on in other studies. In a comparison of the athletes in the present sample with the runners studied by Harris and Jennings (Note 2), we found one-third of each sample were labeled androgynous, one-quarter masculine, and the rest were undifferentiated or feminine. In Spence and Helmreich's sample (1978), the athletes were somewhat more frequently categorized as masculine and less frequently as feminine; but this difference was not significant. Furthermore, the highly committed athletes in the present study were similar to the University of Texas athletes.

Although the athletes in the present and the University of Texas samples seemed quite similar in their personality attributes, the unselected women in these two studies were somewhat different. The group of unselected college women in the present sample were more frequently categorized as masculine and less frequently as undifferentiated than in the University of Texas group. Based on this tentative difference, one might speculate that the two college environments select for different personality attributes *or* in some way encourage and reinforce women to develop these attributes.

The athletes and unselected group of college women in the present study and both groups of University of Texas women were part of very different college environments with different athletic experiences. The varsity athletes at the University of Texas were recruited for their athletic ability and were highly professional athletes (Spence, Note 1). In the present study the athletes varied widely in their commitment to athletics and were accepted to the college primarily for their academic performance, rather than athletic ability. In this study the highly committed women were most likely to have athletic aspirations similar to the University of Texas women and to share similar personality attributes with them. Hence, even in widely divergent academic environments where differences in personality attributes are marked, highly committed female athletes show similar levels of psychological masculinity and femininity.

Although previous research has investigated the effects of choosing a particular sport, the effects of varying levels of commitment within the athletic population have not been systematically studied. In this sample, strongly endorsing instrumental and expressive characteristics and profeminist attitudes was found to be related to willingness to make a strong commitment to athletics. Similarly, those making a low commitment to athletics generally did not strongly endorse instrumental and expressive characteristics or profeminist attitudes. The less committed athlete's attitudes were related to her view of women's roles in society, as she was found to be more conservative than the more highly committed athlete and her nonathlete college peers. Unwillingness to commit oneself may be a more general characteristic that extends beyond athletics for these women (e.g., half of the uncommitted athletes were classified as undifferentiated).

The highly committed athlete appears to be more profeminist than athletes with low commitment, although she does not seem to be more profeminist than other female college students. Being a committed athlete, thus, does not necessarily make one more profeminist than one's college peers.

As for the effect athletics has on women, this research does not indicate a "masculinizing" influence. From the small group of people who were studied over two time periods, changes in psychological masculinity and femininity did not appear over the course of a season. The one change suggested was a slight increase in self-esteem, although any change might be attributed to factors unrelated to athletic participation and, indeed, the control sample might also have shifted. Further research is in progress to assess changes over time in relation to athletic participation.

Over the course of the season the novice athlete seemed to experience a changing view of herself as an athlete. One assumption of this research has been that women who commit at least two hours per day to training for a team would view themselves as athletes. However, in interviews most novice athletes indicated that they entered the training program without an image of themselves as athletes and that their self-image changed as their physique or performance level changed throughout their involvement. This changing self-image may be reflected in changes in self-esteem. The women also indicated that their level of commitment increased as they gained experience and came to understand the sport.

One interesting finding is that the personality attributes of masculinity and femininity are related to self-esteem and commitment, but are *not* related to each other. Furthermore, profeminism is related to commitment, but unrelated to self-esteem or personality attributes. Commitment to athletics appears *not* to be related to the athlete's evaluation of herself or her abilities, i.e., her self-esteem. Apparently, an individual's strong commitment to athletics does not necessarily have an evaluative component.

Finally, collegiate women's athletics is changing rapidly — it is becoming more and more difficult for women to "make teams." The fact that all of these teams were composed mostly of freshmen and sophomores is an indication

of the high-caliber athlete now entering female college programs – women who have benefited from increased opportunities for women in high school athletics. More teams are turning to “cutting” policies as the number of interested people grows unwieldy, so that a higher level of commitment and extensive previous experience is becoming a prerequisite to entering collegiate athletics. The female athlete of the future is likely to be similar to the highly committed athlete of today.

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