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Femininity and Physical Activity Preferences Among College Women

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FEMININITY AND PHYSICAL ACTIVITY PREFERENCES
AMONG COLLEGE WOMEN

BY

LORNA J. LOMBARDI

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
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ABSTRACT

The purpose of this study was to compare physical education majors, athletes, and non-majors/athletes with respect to psychological femininity and physical activity preferences. It was thought that perhaps the degree of a woman's psychological femininity would be reflected in the motivation for her participation in various types of physical activity. It was therefore hypothesized that 1) there would be significant differences between and among the three groups of women with respect to femininity scores, 2) there would be significant differences between and among the three groups of women with respect to physical activity preferences, and 3) there would be no significant correlations between psychological femininity scores and activity preferences in any of the three groups tested.

The 116 female subjects were administered the Gough Scale to measure degrees of psychological femininity and Kenyon's A.T.P.A. to discover motivations for physical activity. The scores obtained from both instruments were tabulated, means computed, and appropriate statistical analysis was carried out for each hypothesis.

The results of this study indicated that there was no significant difference found in the psychological

femininity ratings of the three groups tested. The motivations for physical activity found were as follows: Athletes rated health and fitness and aesthetic experience significantly higher, as did the physical education majors and the non-majors/athletes. It was discovered also that athletes correlated aesthetic experience with femininity while non-majors/athletes correlate aesthetic experience with masculinity. Physical education majors correlate social experience with femininity while athletes associate it with masculinity, as well as catharsis.

The results of this study appear to contradict information previously reported in literature and research studies.

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TABLE OF CONTENTS

CHAPTER	PAGE
I INTRODUCTION.	1
Statement of the Problem.	1
Limitations of the Study.	2
Justification for the Study	2
Definition of Terms	4
II REVIEW OF LITERATURE.	5
Literature and Research Pertaining to Femininity and Physical Activity.	5
III PROCEDURES IN RESEARCH.	13
Source of Data.	13
Collection of Data.	14
Instruments Used.	14
Administration of the Tests	15
Analysis of Data.	16
IV ANALYSIS OF DATA.	17
Statistical Analysis of Hypotheses I	17
Statistical Analysis of Hypothesis II	19
Statistical Analysis of Hypothesis III	29
V SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	32
Summary	32
Conclusions	32
Major Recommendations	34
BIBLIOGRAPHY	35
APPENDIX	39

LIST OF TABLES

TABLE		PAGE
I	Means and Standard Deviations of Femininity Scores.	18
II	Analysis of Variance - Femininity Scores.	18
III	Decriptive Statistics of Physical Activity Preferences Among and Within Groups	20
IV	Analysis of Variance - Activity Preferences of Athletes	21
V	Significant Mean Differences Between Activity Preferences - Athletes	22
VI	Analysis of Variance - Activity Preferences of Physical Education Majors.	23
VII	Significant Mean Differences Between Activity Preferences - Physical Education Majors	24
VIII	Analysis of Variance - Activity Preferences of Non-Majors/Athletes	25
IX	Significant Mean Differences Between Physical Activity Preferences - Non-Majors/Athletes	26
X	F Values Between Groups Within Each Activity Preference	27
XI	Significant Mean Differences Between Groups - Social, Catharsis, and Ascetic Variables	28
XII	Statistical Analysis of Hypothesis III.	30

I. INTRODUCTION

For many years women with high interests in sports and games or any type of physical activity have often been assumed to differ from other women in certain personality traits, particularly psychological femininity. The degree of femininity has also been believed to be associated with different types of physical activities and the reasons women engage in these activities. These issues are dealt with in this study.

Statement of the Problem

It was the purpose of this study to compare three groups of college women with respect to psychological femininity and physical activity preferences. The groups studied included women physical education majors, women athletes, and a group selected at random from women who were neither majoring in physical education nor participating in intercollegiate athletics.

The following hypotheses were tested:

1. There would be significant differences between and among the three groups of women with respect to femininity scores.
2. There will be significant differences between and among the three groups of women with respect

to physical activity preferences.

3. There will be no significant correlations between psychological femininity scores and activity preferences in any of the three groups tested.

Limitations of the Study

The study was limited in the following respects:

1. The subjects in the study were limited to women attending two Rhode Island colleges and universities during the academic year 1974-75.
2. No consideration was given to the socioeconomic status of the subjects. Socioeconomic status has been found by several investigators to be positively correlated with femininity in females.
3. It was assumed that the Gough Femininity Scale does actually reflect social and psychological concepts of femininity.
4. It was assumed that the six subscales of Kenyon's Attitudes Toward Physical Activity do reflect underlying attitudes and activity preferences.
5. Subjects were not drawn from a truly random population because of restraints of time and availability of subjects.

Justification for the Study

Several studies have been made pertaining to women athletes, physical education majors, and non-majors with

regard to psychological femininity. Studies by Landers (8), Booth (2), Malumpay (9), and Bolt (1), have provided information relating that women physical education majors and athletes tend to be less feminine than other groups of females.

Similarly, several studies have been made comparing women athletes, physical education majors, and non-majors with regard to physical activity. Studies by McKinley (10), Keogh (7), and Fleming (4), have reported significant differences of attitudes toward physical activity among female athletes, physical education majors, and non-majors.

However, despite the numerous studies pertaining to femininity and attitudes toward physical activity, there is very little information available regarding the reasons for such differences. It was hoped that this study would provide some information in this direction. By utilizing the six subscales of Kenyon's Attitude Toward Physical Activity test, information pertaining to underlying attitudes toward physical activity and reasons for participation in physical activity has been gathered.

A secondary justification of this study centers around the use of the Gough Femininity Scale. Developed in 1952, this measurement of psychological femininity appeared to be a valid and reliable social measure of femininity for that period of time. Twenty-three years later, the attitudes of society as to the concept of what

is feminine and what is masculine may be entirely different. It is therefore believed that this study will strengthen or weaken the validity of Gough's instrument.

Definition of Terms

Athletes: females participating in organized intercollegiate sports.

Attitude: a latent or nonobservable, complex, but relatively stable behavioral disposition reflecting both direction and intensity of feeling toward a particular object, whether it be concrete or abstract (20).

Femininity: interest in feminine activities, vocations, etc., consistent with traits identified as being feminine by Gough (12).

Non-Athletes/Majors: females not presently participating in intercollegiate athletics and not majoring in physical education.

Physical Education Majors: undergraduate females enrolled as majors in a teacher training program of physical education.

II. REVIEW OF LITERATURE

The review of literature has been limited to literature and research pertaining to the personality trait of femininity and the involvement in physical activities among different groups of women. It is meant to give the reader some background to findings of previous researchers.

Literature and Research Pertaining to Femininity and Physical Activity

Women with high interests in sports and games involving physical skill have often been assumed to differ from other women in certain personality dispositions, and in particular, psychological femininity, since high interest in sports has been found by many researchers to be negatively associated with the female sex role in American society. In addition to the biological differences between the sexes there are also cultural expectancies associated with different age-sex roles. Although cultural sex role expectations in general as well as those regarding women's sport participation have expanded in recent decades, games and sports involving physical skill, as well as vocations which deal with games of physical skill, are still considered to be positively associated with the male sex role and negatively associated with the female sex role (2). Therefore, women with high interest in games and sports involving physical skill,

whether in participation and/or vocational interests, have been assumed to differ from cultural age-sex norms as a result of different personality dispositions developed through past learning experiences.

In an effort to uncover these different personality dispositions, investigators Bird (4), Fleming (11), and Ogilvie (31) have compared those committed to sport on numerous personality scales and inventories in order to determine if those women with high interests in sports and games involving physical skill display a "clinically normal" psychological profile. Nance (30) approached similar problems within the framework of cultural sex role expectations and examined only one scale - that of "psychological femininity." Femininity scales are based on questions which have been found empirically to significantly differentiate males from females and male heterosexuals from male homosexuals (12,14,27).

Unlike many other personality scales, findings on the femininity scales have shown fairly consistent differences between those committed to games and those less committed. When those engaged in sports and games of physical skill, that is, sportswomen and/or physical education majors were compared with women engaged in more aesthetic activities, such as dancers, on various femininity scales, the sportswomen were found to be less feminine (16,18). With the exception of one study by McKinney (27), women physical education majors have been found to be less feminine than non-majors (7,28) and hypothetical general college means (18).

Daniel M. Landers (22), conducted a study to compare the femininity scores of two groups of prospective teachers - women physical education majors and a group of elementary and secondary education majors. The results indicated that the physical education majors had a significantly lower and less feminine total score than the education majors. This finding is in accord with those of Clark (7), Kahrs (18), Ibrahim (16), and Mochel (28). Although these studies are consistent in showing physical educators and athletes to be less feminine than other groups on total femininity scales, the results have provided us with little information regarding the reasons for such differences.

Both Duggan (9) and Espenshade (10) in their comparisons of women majors and nonmajors with respect to certain personality traits concluded that the majors, as a group, were less neurotic than the nonmajors, more extroverted, and more dominant.

In Thorpe's (35) study of personality variables among successful women students and physical education teachers, she concluded that there tended to be a similarity of personality variables (deference, order, dominance, and endurance) among the successful women teachers, graduate students and senior majors in physical education who participated in the study.

Helen Timmermans' (36) study was designed to investigate possible differences between physical education majors

and nonmajors in certain personality traits. She found a significant difference on only one of the ten personality traits tested - General Activity - on which the physical education majors scored higher. This means that they exhibited the following qualities more than the nonmajors did: rapid pace of activities, energy and vitality, keeping in motion, liking for speed, hurrying, quickness of action, and enthusiasm and liveliness. This study does not seem to conform to the conclusions made in related studies that women physical education majors tend to be more dominant, less neurotic, and more extroverted.

In another study by Landers (23), he found that females with a sister as opposed to females with a brother reported less sport participation, more psychological femininity, and were underrepresented among females committed to sports (physical education majors) as those not committed to sports (education majors)

Smith (33) and Hawley (15) found that less "psychologically feminine" females seemed to enter into sports or physical education as a career.

In a study conducted by Worthy and Craddick (37), psychoanalytic considerations that certain concepts symbolize masculinity or femininity received some support, and sports and physical activity were found to be high indicators of masculinity.

Harford, Willis, and Deabler (13), also examined the relationship between masculinity and femininity and person-

ality. Measures of masculinity and femininity derived from their study differentially related to personality, values, and general attitudes. They found masculinity to be associated with sports tendencies, not femininity.

Lunneborg and Lunneborg (24) also found that sports and physical activity were considered masculine interests rather than feminine interests.

Bolt (5) studied the measurement of masculinity-femininity by scales so labeled on personality inventories. Results showed rejection of more than half of the items originally keyed as feminine and not much change in items originally keyed as masculine, including sports and games involving physical skill of any degree.

Marke and Gottfries (26) found that in females a radical sex role perception seems to be related to a tendency to describe oneself as tough, aggressive, and dominant. And, there was a high correlation between measures of the sex role factors and measures of the masculinity-femininity factors.

Kammeyer (19) found two dimensions of the feminine role - orientation toward proper feminine role behavior, and beliefs about female personality traits - are related to college girls' sibling positions in their families. The expectation that girls with brothers will be more likely to have a more traditional orientation toward the feminine role is not supported by the data. Girls with older

brothers did have less traditional beliefs about female personality traits - again contrary to expectations.

Josselyn (17) states that in order for a child to have a proper conception of his sexual identity and so define his exact role, three major concepts of sexual identity must be recognized; 1) the inherent biological differences of the sexes, 2) the mores and ideals of the culture in which the particular child is reared, and 3) the attitudes of parents and certain significant others who are emotionally important to the child. Any of these concepts will have a definite effect on how the child develops his or her sexual identity.

Steinman and Fox (33) studied male and female perceptions of the females in the United States. They reported that women perceived man's ideal woman as strongly intro-family orientated, and significantly more accepting of a subordinate role in the family structure. However, men's actual ideal woman, according to those tested, is not significantly different from the women's own ideal or self-perception, thus significantly more active and self-assertive than the ideal women attributed to them.

Hawley (15) found in her investigation that men's views of the feminine ideal have some effect on women's choices of careers. That was in 1969 - if that study was undertaken today with some of the liberated women what would the results look like!?

Research into the personality traits of athletes, groups such as physical education majors, and individuals

with varying degrees of motor ability have helped bridge the gap from physique studies to the studies of total physical fitness and its relationship to personality.

Theresa Malumphy (25) conducted a study which described and compared the personalities and backgrounds of women participating in intercollegiate sports competition. Four general variables were described: personality characteristics, early experience in sports activity, family sports participation, and personal feelings about competition. The responses indicated that the sports groups were differentiated on the basis of the educational background of the parents, the family socioeconomic level, the home community size, the early sports experience and training, the effects of training and participation on the feminine image, the early and current dating patterns, and the sorority membership and residence.

The results indicated that the nonparticipants were significantly differentiated from the sports groups as follows: Less conscientious than the subjectively-judged group; less tough-minded, less tough poise, and less leadership than the individual and subjectively-judged groups; and more imaginative, more extroverted, and more venturesome than the team-individual sports groups. It was also indicated that the individual and subjectively-judged sports groups were similar to each other and different from the team and the team-individual sports in that their femininity was seen to be enhanced by participation because of the

nature of the movements in the history of the activity. These participants were confident that their participation contributed to the feminine image.

In conclusion then: much of the general public has stereotyped women physical education teachers and sports-women. They have been said to be more outgoing or sociable and more masculine - hence less "psychologically feminine." The professional literature indicates that there may be inaccurate stereotyping of physical education people and sportswomen, though previous research done in this area is inconclusive.

III. PROCEDURES IN RESEARCH

Source of data

The source of data for this study was 116 females from the University of Rhode Island and Rhode Island College. There were three groups of females selected. One group consisted of Physical Education Majors. The women in this group were all undergraduate students enrolled as majors in a teacher training program of physical education. The heads of the Women's Physical Education Departments at both institutions were consulted and were instrumental in locating the women tested in this group. They introduced the women to the fact that research was being done and told them it would be appreciated if they would submit to taking a test for the research. The test was administered to each woman individually with care taken to have the women remain anonymous and to keep the subject of the research from being known until after the test was completed. Testing was conducted in the Women's Physical Education office on women physical education majors who came in throughout the day. Another group consisted of female athletes. The women in this group were all participating on an organized intercollegiate team of some kind. The subjects were representative of individual, dual, and team sports. The coaches of the teams were contacted to obtain permission

to test the women in this group. Then individual women were asked to submit to testing for the research being done, again remaining anonymous and not being told the nature of the research until the testing was completed. Testing was conducted in the various practice areas of the teams. The members of the physical education majors group were not also members of any intercollegiate teams, and the athletes were not also physical education majors. The two groups were mutually exclusive. The third group consisted of women who were neither physical education majors nor athletes on an intercollegiate team. The student activities director was helpful in locating the women for this group. The student union was the location for the testing of this group, and the same basic procedures used for testing the other groups were used.

Collection of Data

Instruments Used

There were two instruments utilized in this study. To measure degrees of femininity the Gough Scale was used. The Gough Scale consists of 58 true-false items considered to be measures of degrees of psychological femininity. The reliability of this scale was found to be 0.88 for females and 0.86 for males. The Gough Scale is contained in Appendix A.

To test underlying attitudes toward physical activity Kenyon's Attitude Toward Physical Activity instru-

ment was employed. The test consists of 54 statements which the subjects rated as very strongly agreeing with, strongly agreeing with, agreeing with, undecided about, disagreeing with, strongly disagreeing with, or very strongly disagreeing with. Although a general measure of attitude toward physical activity, the A.T.P.A. further contains six subscales or components which are capable of measuring the psychological object toward which the attitudes are held. The six components are as follows: Physical Activity perceived as 1) a social experience, 2) health and fitness, 3) pursuit of vertigo, 4) an aesthetic experience, 5) catharsis, and 6) an ascetic experience. These six subscales are perceived by Kenyon as underlying attitudes and motivations for participation in activity. Hoyt reliabilities for the six scales are reported by Kenyon as ranging from 0.72 to 0.89. Appendix B contains a copy of Kenyon's Attitudes Toward Physical Activity scale.

Administration of the Tests

Both tests were given to each subject tested on the same day. The Gough Scale was given first, followed by Kenyon's A.T.P.A. The subjects took the test anonymously and were told nothing about the nature of the study until after they had finished the tests. No time limit was set. The subjects were allowed as much time as was needed for them to finish the tests. The approximate time involved in completing both tests was one-half hour per subject.

The tests were given to each of the subjects individually.

Analysis of Data

The scores obtained from both instruments were tabulated and the means were computed for each variable within each group. To test hypothesis I a one-way analysis of variance for uncorrelated means was employed. To test hypothesis II, a one-way analysis of variance for uncorrelated means was used. Hypothesis III was tested by means of product-moment correlations. Significant differences were tested at the .05 level of confidence. Where significant F ratios were found, "t" tests were employed to determine where the significant differences occurred.

IV. ANALYSIS OF DATA

This chapter contains an analysis of the data pertaining to the three hypotheses of this study. Statistical analysis of all three hypotheses are found in the various tables located in this chapter. The results of the Gough test and Kenyon's attitude scale are also included within.

Statistical Analysis of Hypotheses I

Hypothesis I - There would be significant differences between and among the three groups of women with respect to femininity scores

To test hypothesis I, one hundred and sixteen women were administered the Gough Femininity Scale. Tables I and II contain descriptive and statistical analysis relating to femininity ratings.

Table I contains the means of the three groups pertaining to the femininity scores. It should be pointed out that the reported means for each of the three groups fall very low on the feminine half of the scale. Out of a possible 58 points the means were between 33.83 and 34.35.

As shown in Table II an F ratio of .15 was found. With 2/113 degrees of freedom an F ratio of 3.08 was

TABLE I

Means and Standard Deviations of Femininity Scores

	<u>N</u>	<u>\bar{X}</u>	<u>SD</u>
Athletes	36	33.94	5.58
Majors	40	33.83	3.69
Non-Majors/Athletes	40	34.35	3.95

TABLE II

Analysis of Variance - Femininity Scores

<u>Sources of variation</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>SD</u>
Among Conditions	2	6.02	3.01	
Within Conditions	113	2288.76	20.25	4.50
Total	115	2294.78		

F ratio = .15

needed for significance at the .05 level of confidence. An F ratio of 4.78 was needed for significance at the .01 level of confidence. The F ratio of .15 reported in Table II was not found to be significant indicating that no significant differences among the means of the three groups were found to exist regarding femininity ratings. Therefore, hypotheses I was rejected.

Statistical Analysis of Hypothesis II

Hypothesis II - There will be significant differences between and among the three groups of women with respect to physical activity preferences.

To test hypothesis II one hundred and sixteen women were administered Kenyon's Attitude Scale. Tables III through X contain descriptive and statistical analysis of data.

To test for significant differences between and among groups within each of the six physical activity variables a one-way analysis of variance for uncorrelated means was used. If significant F ratios were found at the .05 level of confidence "t" tests were employed to determine where significant differences occurred. All significant differences were determined at the .05 level of confidence.

TABLE III

Descriptive Statistics of Physical Activity Preferences
Among and Within Groups

	<u>Athletes</u>		<u>Majors</u>		<u>Non-Majors/Athletes</u>	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Social Experience	36.36	6.27	38.63	4.16	33.13	5.62
Health and Fitness	44.64	9.38	45.18	6.54	44.40	7.24
Pursuit of Vertigo	35.53	7.06	34.23	5.08	33.43	5.83
Aesthetic Experience	44.78	11.35	42.55	7.29	42.25	8.96
Catharsis	37.42	5.76	40.55	5.64	35.78	7.72
Ascetic Experience	33.64	3.87	33.45	3.78	31.40	3.79

TABLE IV

Analysis of Variance - Activity Preferences of Athletes

<u>Sources of Variation</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>SD</u>
Among	5	4,140	828	
Within	<u>210</u>	<u>12,759</u>	60.75	7.79
Total	215	16,899		

F ratio 13.63**

** Indicates significance beyond .01 level of confidence.

As reported in Table IV, an F ratio of 13.63 was found to exist between the means of activity preferences within the athlete group. With 5/210 degrees of freedom, an F ratio of 3.11 was needed for significance at the .01 level of confidence. The reported ratio of 13.63 was therefore found to be significant beyond the .01 level of confidence. To determine where the significant mean difference occurred, individual "t" tests were employed. Table V contains information relating to this analysis.

As reported in Table V, several mean differences between physical activity variables were found to exist within the group of athletes. The athletes rated Health

TABLE V

Significant Mean Differences Between Activity
Preferences - Athletes

	Health and Fitness	Vertigo	Aesthetic	Cath.	Ascetic
Social (36.36)	8.28 ^{**}	.83	8.42 ^{**}	1.06	2.72
Health and Fitness (44.64)	-	9.11 ^{**}	.14	7.22 ^{**}	11.00 ^{**}
Pursuit of Vertigo (35.53)	-	-	9.25 ^{**}	1.89	1.89
Aesthetic (44.78)	-	-	-	7.36 ^{**}	11.14 ^{**}
Catharsis (37.42)	-	-	-	-	3.78 [*]
Ascetic (33.64)	-	-	-	-	-

* Indicates significant differences at or above the .05 level of confidence.

** Indicates significant differences at or above the .01 level of confidence.

and Fitness and Aesthetic Experience first with no significant difference between the two. Health and Fitness and Aesthetic Experience differed significantly from each of the other subscales at the .01 level of confidence. Also, Catharsis ranked significantly higher than Ascetic Experience (.05 level of confidence).

Analysis of data relating to differences between physical activity preferences of physical education majors

is found within Table VI.

TABLE VI

Analysis of Variance - Activity Preferences of Physical
Education Majors

<u>Sources of Variation</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>SD</u>
Among	5	4273	854	
Within	<u>234</u>	<u>7406</u>	31.65	5.63
Total	239	11679		

F ratio 26.98^{**}

^{**}Indicates significant mean difference beyond the .01 level of confidence.

As reported in Table VI, an F ratio of 26.98 was found. With 5/234 degrees of freedom, an F ratio of 3.11 was needed for significance at the .01 level of confidence. The reported ratio of 26.98 was therefore found to be significant beyond the .01 level of confidence.

Table VII contains the results of individual "t" tests employed to determine where significant mean differences occurred.

TABLE VII

Significant Mean Differences Between Activity Preferences
Physical Education Majors

	Health and Fitness	Vertigo	Aesthetic	Catharsis	Ascetic
Social (38.63)	6.55 ^{**}	4.41 ^{**}	3.92 ^{**}	1.92	5.18 ^{**}
Health and Fitness (45.18)	-	10.95 ^{**}	2.63 [*]	4.63 ^{**}	11.73 ^{**}
Pursuit of Vertigo (34.23)	-	-	8.32 ^{**}	6.32 ^{**}	.78
Aesthetic (42.55)	-	-	-	2.00	9.10 ^{**}
Catharsis (40.55)	-	-	-	-	7.10 ^{**}
Ascetic (33.45)	-	-	-	-	-

* Indicates significance beyond .05 level of confidence.

** Indicates significance beyond .01 level of confidence.

As shown in Table VII Health and Fitness was ranked first by the Physical Education Majors and differed significantly from each of the others at the .01 level of confidence. Aesthetics was ranked second and differed significantly from social experience at the .01 level of confidence, from health and fitness at the .05 level of confidence, and from ascetics at the .01 level of confidence. Also, catharsis rated higher than pursuit of vertigo and

and ascetics at the .01 level of confidence. And, Social Experience was rated higher than Pursuit of Vertigo at the .01 level of confidence. Therefore, the major motivation for physical activity among the physical education majors was health and fitness with aesthetics in second place.

Table VIII contains information pertaining to activity preferences of non-majors/athletes.

TABLE VIII

Analysis of Variance - Activity Preferences of Non-Majors/Athletes

<u>Source of Variation</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>SD</u>
Among	5	5791	1158.2	
Within	234	9691	41.41	6.44
Total	239			

F ratio = 27.97**

** Indicates significance beyond the .01 level of confidence.

With 5/234 degrees of freedom an F ratio of 3.11 was needed for significance beyond the .01 level of confidence. As reported in Table VIII, the F ratio of 27.97 was found to be significant beyond the .01 level of confidence. Significant mean differences are reported in Table IX.

TABLE IX

Significant Mean Differences Between Physical Activity Preferences - Non-Majors/Athletes

	Health and Fitness	Vertigo	Aesthetic	Catharsis	Ascetic
Social (33.13)	11.27**	.30	9.12**	2.65	1.73
Health and Fitness (44.40)	-	10.97**	2.15	8.62**	13.0**
Pursuit of Vertigo (33.43)	-	-	8.82**	2.35	2.03
Aesthetic (42.25)	-	-	-	6.47**	10.85**
Catharsis (35.78)	-	-	-	-	4.38**
Ascetic (31.40)	-	-	-	-	-

** Indicates significance beyond .01 level of confidence.

As reported in Table IX, several significant mean differences between physical activity variables were found to exist within the group of non-majors/athletes. Health and Fitness had the highest mean and differed significantly from each variable except Aesthetics at the .01 level of confidence. Aesthetics differed significantly from every variable except health and fitness, and ascetic differed significantly from catharsis, which was the lowest ranked variable, at the .01 level of confidence. From this data one can conclude then that health and fitness and aesthetic experience are the major motivations for the non-majors/athletes.

Table X contains information pertaining to significant differences which occurred between the three groups within each activity preference.

TABLE X

F Values Between Groups Within Each Activity Preference

<u>Activity Preference</u>	<u>F-Ratio</u>
Social Experience	10.69 ^{**}
Health and Fitness	.10
Pursuit of Vertigo	1.14
Aesthetic Experience	.73
Catharsis	7.28 ^{**}
Ascetic Experience	4.02 ^{**}

* Indicates significant differences at .05 level of confidence.

** Indicates significant differences at .01 level of confidence.

As shown in Table X, significant mean differences between the three groups were found to exist within three of the six categories (social experience, catharsis, and ascetics). No differences were found between groups within health and fitness, pursuit of vertigo, or aesthetic experience. This would indicate then that health and fitness and aesthetic experience are the two major motivations for participation in physical activity within all of the groups.

To determine where the significant mean differences

occurred between the social, cathartic, and ascetic variables, "t" tests were used. As reported in Table XI several mean differences between the groups within each of the three variables were found.

TABLE XI
Significant Mean Differences Between Groups
Social, Catharsis, and Ascetic Variables

	<u>Social</u>	<u>Catharsis</u>	<u>Ascetic</u>
Athletes-Majors	2.27	3.13 [*]	.19
Athletes- Non-Majors/Athletes	3.21 [*]	1.64	2.24 [*]
Majors - Non-Majors/Athletes	5.50 ^{**}	4.77 ^{**}	2.05 [*]

* Indicates significance beyond .05 level of confidence.

** Indicates significance beyond .01 level of confidence.

As reported in Table XI, the Majors group indicated a higher motivation for social experience than did the Athletes (at the .05 level of confidence) or the Non-Majors/Athletes (at the .01 level of confidence); higher motivation for catharsis than did the Athletes (at the .05 level of confidence) or the Non-Majors/Athletes (at the .01 level of confidence); and higher motivation for ascetics than did

the Non-Majors/Athletes (at the .05 level of confidence). Also, Athletes indicated higher motivation for social experience than did Non-Majors/Athletes (at the .01 level of confidence); higher motivation for catharsis than the Non-Majors/Athletes (at the .01 level of confidence, and higher motivation for ascetics than the Non-Majors/Athletes (at the .05 level of confidence).

Based upon the information found in Tables III through XI, hypothesis II was accepted.

Statistical Analysis of Hypothesis III

Hypothesis III- There will be no significant correlations between femininity scores and activity preferences in any of the three groups studied.

To test hypothesis III, scores obtained from the Gough Femininity Scale were compared with scores obtained from Kenyon's Scale within each of the three groups. Table XII contains the results of this comparison.

As shown in Table XII a positive correlation of .55 (.01 level of confidence) was found between femininity and aesthetic experience of physical activity within the group of athletes. A positive correlation of .57 (.01 level of confidence) was found between femininity and social experience within the majors group. And, a sig-

TABLE XII
 Statistical Analysis of Hypothesis III

	<u>Athletes</u>	<u>Majors</u>	<u>Non-Majors/Athletes</u>
Social Experience	-.38*	.57**	.14
Health & Fitness	-.19	.02	-.19
Pursuit of Vertigo	-.28	-.02	-.04
Aesthetic Experience	+.55**	-.10	-.63**
Catharsis	-.55**	.20	-.07
Ascetic Experience	-.12	-.20	.15

* Indicates significance beyond .05 level of confidence

** Indicates significance beyond .01 level of confidence

nificant negative correlation of $-.55$ (.05 level of confidence) was found between femininity and social experience within the group of athletes, as well as a negative correlation between femininity and catharsis, significant at the .01 level of confidence. Also, a negative correlation was found between femininity and aesthetic experience within the non-majors/athletes.

Based upon the results, one can interpret that within the athlete group, aesthetic experience correlated highly with femininity scores so that an increase in a femininity score would probably mean an increase in the aesthetic

score. Also, since social experience correlated negatively with femininity an increase in a femininity score would probably mean a decrease in social emphasis. Catharsis correlated negatively with femininity also, so that one would expect an increase in a femininity score to produce a decrease in a catharsis score as well.

Within the physical education majors group social experience correlated positively with the femininity score so that an increase in a femininity score would probably produce an increase in a social experience score and vice versa.

Within the non-majors/athlete group aesthetic experience correlated negatively with femininity scores. Which means that an increase in a femininity score would probably mean a decrease in an aesthetic experience score or vice versa.

Based upon the information found in Table XII, hypothesis III was rejected.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The Gough Femininity Scale and Kenyon's A.T.P.A. were administered to 116 college women representing three groups: a) Physical Education Majors, b) Athletes, and c) Non-Majors/Athletes. Three hypotheses were tested: 1) there would be significant differences between and among the three groups of women with respect to their femininity scores; 2) there would be significant differences between and among the three groups of women with respect to physical activity preferences; and 3) there would no significant correlations between psychological femininity scores and activity preferences in any of the three groups tested. As a result of the analysis of the data of the study hypotheses 1 and 3 were rejected and hypothesis 2 was accepted.

Conclusions

Based upon the results of the study the researcher arrived at the following major conclusions:

- 1) There were no significant differences between and among the three groups of women with respect to their femininity scores.

- 2) The three groups tested scored relatively low in femininity on the Gough Scale.
- 3) Even though there were differences within the three groups regarding the items listed on Kenyon's A.T.P.A. health and fitness and aesthetics were found to be the main motivations for physical activity in all three groups.
- 4) Within the athlete group aesthetic experience correlated highly with femininity scores, while in the non-majors/athlete group aesthetic experience correlated with masculinity.
- 5) Within the physical education majors group social experience correlated positively with femininity scores.
- 6) Within the athlete group catharsis correlated negatively with femininity scores.

These conclusions seem to indicate several possibilities to the researcher. There seems to be very little difference between or among the women in the three groups tested. They all scored relatively low on Gough's Scale, with the mean scores between 33.83 and 34.35, a very close range. They all found health and fitness and aesthetic experience to be the main motivations for physical activity. There are many possible reasons for this. Perhaps there is not a great difference in the women tested in the study. Perhaps the old stereotypes have given way and a more

uniform type of basic woman has evolved so that we will find fewer and fewer differences among women with different interests in the future. Perhaps the national renewed interest in health and physical fitness has brought about an appreciation of these which is motivating all types of women into physical activity. And perhaps the media is helping women to appreciate more and more the aesthetic experiences involved in all types of physical activity and sport.

Major Recommendations

It is recommended that if further research is conducted involving psychological femininity a new instrument be used that is more updated and in better perspective of today's society's ideas of what psychological femininity actually is and is not. Since most studies done in previous years have found results quite different from those found within this study it seems that more research needs to be done on this subject in the future. Perhaps the "femininity" and "masculinity" of yesterday are giving way to new values for these terms. Studies should be done in other states in different parts of the country to see if this is a nationwide trend.

It is further recommended that a similar study be undertaken to include females of other populations, particularly of high school age.

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APPENDIX

APPENDIX A
GOUGH SCALE

The following questions should be answered true or false according to your own feelings and opinions about yourself.

1. ___ I want to be an important person in the community.
2. ___ I'm not the type to be a political leader.
3. ___ When someone talks against certain groups or nationalities, I always speak up against such talk even though it makes me unpopular.
4. ___ I like mechanics magazines.
5. ___ I think I would like the work of a librarian.
6. ___ I'm pretty sure I know how we can settle the international problems we face today.
7. ___ I would never feel right if I thought I wasn't doing my share of the hard work of any group I belonged to.
8. ___ People seem naturally to turn to me when decisions have to be made.
9. ___ I must admit I feel sort of scared when I move to a strange place.
10. ___ I like to go to parties and other affairs where there is lots of loud fun.
11. ___ If I were a reporter I would like very much to report news of the theater.
12. ___ I would like to be a nurse.
13. ___ It is hard for me to "bawl out" someone who is not doing his job properly.
14. ___ If I get too much change in a store I always give it back.
15. ___ I very much like hunting.
16. ___ Some of my family have habits that bother and annoy me very much.
17. ___ I would like to be a soldier.
18. ___ I think I could do better than most of the present politicians.

19. _____ I like to be with a crowd who play jokes on one another.
20. _____ It is hard for me to start a conversation with strangers.
21. _____ I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.
22. _____ I hate to have to rush when working.
23. _____ In school I was sometimes sent to the principal for cutting up.
24. _____ I think I would like the work of a building contractor.
25. _____ When I work at something I like to read and study about it.
26. _____ I think that I am stricter about right and wrong than most people.
27. _____ I am somewhat afraid of the dark.
28. _____ I am very slow in making up my mind.
29. _____ I am hardly ever bothered by a skin condition, such as athlete's foot, rash, etc.
30. _____ I like to boast about my achievements every now and then.
31. _____ Sometimes I cross the street just to avoid meeting someone.
32. _____ I would do almost anything on a dare.
33. _____ I think I would like to drive a racing car.
34. _____ I must admit that I enjoy playing practical jokes on people.
35. _____ I always tried to make the best school grades that I could.
36. _____ I am inclined to take things hard.
37. _____ At times I feel like picking a fist fight with someone.
38. _____ I am apt to hide my feelings in some things to the point that people may hurt me without their knowing about it.

39. ___ Sometimes I have the same dream over and over.
40. ___ The thought of being in an automobile accident is very frightening to me.
41. ___ The average person is not able to appreciate art and music very well.
42. ___ I prefer a shower to a bathtub.
43. ___ I am often a little uneasy about handling knives and other sharp-bladed instruments.
44. ___ Sometimes I feel that I am about to go to pieces.
45. ___ I like adventure stories better than romantic stories.
46. ___ I like to be in many social activities.
47. ___ I was hardly ever spanked or whipped as a child.
48. ___ I think I would like the work of a garage mechanic.
49. ___ A windstorm terrifies me.
50. ___ I get excited very easili.
51. ___ I become quite irritated when I see someone spit on the sidewalk.
52. ___ I think I would like the work of a dress designer.
53. ___ I have a certain talent for understanding the other person, and for sympathizing with his problems.
54. ___ It makes me very nervous when I get blamed for making a mistake.
55. ___ I often get disgusted with myself.
56. ___ I always like to keep my things neat and tidy and in good order.
57. ___ I think I would like the work of a clerk in a large department store.
58. ___ I get very tense and anxious when I think other people are disapproving of me.

APPENDIX B

SIX SCALES FOR DETERMINING ATTITUDES TOWARD PHYSICAL
ACTIVITY: FORM D COLLEGE WOMENINTRODUCTION

The following is part of a research project designed to ascertain the opinions of college students about certain aspects of our society. The statements on the pages that follow are concerned with physical activity. We are asking you to express what you think or feel about each. The best answer is your personal opinion. Many different and opposing points of view are presented, you may find yourself agreeing strongly with some of the statements and disagreeing just as strongly with others.

INSTRUCTIONS

1. Express your agreement or disagreement by circling the appropriate symbols at the left of each statement, according to the following:

VSA: very strongly agree
 SA: strongly agree
 A: agree
 U: undecided
 D: disagree
 SD: strongly disagree
 VSD: very strongly disagree

For example, if you strongly disagree with a statement you circle SD as follows:

VSA SA A U D SD VSD a. The United Nations should be abolished.

2. You should rarely need to use U (undecided)
3. Work independently of others.
4. Do not spend too much time on any one statement; try to respond, then go on to the next.
5. Respond to ALL statements.

IMPORTANT

1. Do not begin until told to do so.
2. Respond to the statements in the order given. (Do not go on to page two until you have finished page one, etc.)
3. The significance of this research depends upon the degree to which you express your own opinion.

- | | | | | | | | | |
|-----|----|---|---|---|----|-----|----|---|
| VSA | SA | A | U | D | SD | VSD | 1. | I would prefer quiet activities like swimming or golf, rather than such activities as water skiing or sail boat racing. |
| VSA | SA | A | U | D | SD | VSD | 2. | I would gladly put up with the necessary hard training for the chance to try out for the U.S. Women's Olympic Team. |
| VSA | SA | A | U | D | SD | VSD | 3. | The most important value of physical activity is the beauty found in skilled movement. |
| VSA | SA | A | U | D | SD | VSD | 4. | Physical education programs should stress vigorous exercise since it contributes most to physical fitness. |
| VSA | SA | A | U | D | SD | VSD | 5. | The years of strenuous daily training necessary to prepare for today's international competition is asking a lot of today's young women. |
| VSA | SA | A | U | D | SD | VSD | 6. | The need for much higher levels of physical fitness has been established beyond all doubt. |
| VSA | SA | A | U | D | SD | VSD | 7. | Among the best physical activities are those which represent a personal challenge, such as skiing, mountain climbing, or heavy weather sailing. |
| VSA | SA | A | U | D | SD | VSD | 8. | Among the most desirable forms of physical activity are those which present the beauty of human movement such as modern dance and water ballet. |
| VSA | SA | A | U | D | SD | VSD | 9. | I would get by far the most satisfaction from games requiring long and careful preparation and involving stiff competition against a strong opposition. |

- VSA SA A U D SD VSD 10. Of all physical activities, those whose purpose is primarily to develop physical fitness, would not be my first choice.
- VSA SA A U D SD VSD 11. The best way to become more socially desirable is to participate in group physical activities.
- VSA SA A U D SD VSD 12. Almost the only way to relieve severe emotional strain is through some form of physical activity.
- VSA SA A U D SD VSD 13. Frequent participation in dangerous sports and physical activities are all right for other people but ordinarily they are not for me.
- VSA SA A U D SD VSD 14. Physical education programs should place much more emphasis upon the beauty found in human motion.
- VSA SA A U D SD VSD 15. If given a choice, sometimes would choose strenuous rather than light physical activity.
- VSA SA A U D SD VSD 16. There are better ways of relieving the pressures of today's living than having to engage in or watch physical activity.
- VSA SA A U D SD VSD 17. I like to engage in socially oriented physical activities.
- VSA SA A U D SD VSD 18. A part of our daily lives must be committed to vigorous exercise.
- VSA SA A U D SD VSD 19. I am not particularly interested in those physical activities whose sole purpose is to depict human motion as something beautiful.

- VSA SA A U D SD VSD 20. Colleges should sponsor many more physical activities of a social nature.
- VSA SA A U D SD VSD 21. For a healthy mind in a healthy body the only place to begin is through participation in sports and physical activities every day.
- VSA SA A U D SD VSD 22. The least desirable physical activities are those providing a sense of danger and risk of injury such as skiing on steep slopes, mountain climbing, or parachute jumping.
- VSA SA A U D SD VSD 23. Being physically fit is not the most important goal in my life.
- VSA SA A U D SD VSD 24. A sport is sometimes spoiled if allowed to become too highly organized and keenly competitive.
- VSA SA A U D SD VSD 25. I enjoy sports mostly because they give me a chance to meet new people.
- VSA SA A U D SD VSD 26. Practically the only way to relieve frustrations and pent-up emotions is through some form of physical activity.
- VSA SA A U D SD VSD 27. The time spent doing daily calisthenics could probably be used more profitably in other ways.
- VSA SA A U D SD VSD 28. Given a choice, I would prefer motor boat racing or running rapids in a canoe rather than one of the quieter forms of boating.

- VSA SA A U D SD VSD 29. Of all the kinds of physical activities, I don't particularly care for those requiring a lot of socializing.
- VSA SA A U D SD VSD 30. One of the things I like most in sports is the great variety of ways human movement can be shown to be beautiful.
- VSA SA A U D SD VSD 31. Most intellectual activities are often just as refreshing as physical activities.
- VSA SA A U D SD VSD 32. Strength and physical stamina are the most important prerequisites to a full life.
- VSA SA A U D SD VSD 33. Physical activities that are purely for social purposes, like college dances, are sometimes a waste of time.
- VSA SA A U D SD VSD 34. The self-denial and sacrifice needed for success in today's international competition may soon become too much to ask of a thirteen or fourteen year old girl.
- VSA SA A U D SD VSD 35. I am given unlimited pleasure when I see the form and beauty of human motion.
- VSA SA A U D SD VSD 36. I believe calisthenics are among the less desirable forms of physical activity.
- VSA SA A U D SD VSD 37. Watching athletes becoming completely absorbed in their sports nearly always provides me with a welcome escape from the many demands of present-day life.

- VSA SA A U D SD VSD 38. If I had to choose between "still-water" canoeing and "rapids" canoeing, "still-water" canoeing would usually be my choice.
- VSA SA A U D SD VSD 39. There are better ways of getting to know people than through games and sports.
- VSA SA A U D SD VSD 40. People should spend twenty to thirty minutes a day doing vigorous calisthenics.
- VSA SA A U D SD VSD 41. There is sometimes an over-emphasis upon those physical activities that attempt to portray human movement as an art form.
- VSA SA A U D SD VSD 42. Physical activities having an element of daring or requiring one to take chances are desirable.
- VSA SA A U D SD VSD 43. Since competition is a fundamental characteristic of American society, highly competitive athletics and games should be encouraged for all.
- VSA SA A U D SD VSD 44. A happy life does not require regular participation in physical activity.
- VSA SA A U D SD VSD 45. The best form of physical activity is when the body is used as an instrument of expression.
- VSA SA A U D SD VSD 46. Sports are fun to watch and to engage in, only if they are not taken too seriously, nor demand too much time and energy.
- VSA SA A U D SD VSD 47. Calisthenics taken regularly are among the best forms of exercise.

- VSA SA A U D SD VSD 48. I could spend many hours watching the graceful and well-coordinated movements of the figure skater or modern dancer.
- VSA SA A U D SD VSD 49. The best thing about games and sports is that they give people more confidence in social situations.
- VSA SA A U D SD VSD 50. Among the best forms of physical activity are those providing thrills such as sailing in heavy weather or canoeing on river rapids.
- VSA SA A U D SD VSD 51. Regular physical activity is the major prerequisite to a satisfying life.
- VSA SA A U D SD VSD 52. In this country there is sometimes too much emphasis on striving to be successful in sports.
- VSA SA A U D SD VSD 53. I would enjoy engaging in those games and sports that require a defiance of danger.
- VSA SA A U D SD VSD 54. Most people could live happy lives without depending upon frequent watching or participating in physical games and exercise.