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OWENS, NORMA DIANE. A Descriptive Study of the Personality of Selected Amateur Golfers. Directed by: Dr. Marie Riley. pp. 94

The primary purpose of this study was to determine whether there were similar personality patterns among women amateur golfers. The secondary purpose was to compare the group of women amateur golfers with a group of women Pan-American athletes whose scores on the Edwards Personal Preference Schedule were reported by Neal.

The Edwards Personal Preference Schedule was administered to subjects from two groups of women amateur golfers. An amateur golfer was defined as one who had a handicap of eight or less and who qualified to participate in USGA tournaments. One group was composed of thirteen collegiate amateur golfers who were currently enrolled in a college or university. The second group was composed of twenty amateur golfers who were members of the Virginias' and Carolinas' golf teams who compete bi-annually.

The Kruskal-Wallis one-way analysis of variance was used to determine if differences in personality existed among amateur golfers. The data were organized in four ways:

1. The amateur golfers were grouped on a handicap basis. The divisions were 0-2 strokes, 3-5 strokes and 6-8 strokes.
2. The amateur golfers were divided into two groups, collegiate amateur golfers and noncollegiate amateur golfers.
3. The collegiate amateur golfers were divided into the handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes.

4. The noncollegiate amateur golfers were divided into the handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes.

The Kruskal-Wallis one-way analysis of variance was also used in the comparison of the amateur golfers and the Pan-American athletes.

Conclusions

1. There seemed to be similar personality patterns among amateur golfers.
2. There were no significant differences among the amateur golfers grouped on a handicap basis.
3. The collegiate golfers, when grouped on a handicap basis, showed a significant difference in the autonomy variable.
4. The noncollegiate golfers, when grouped on a handicap basis, showed significant differences in the achievement, order, intraception and dominance variables.
5. The amateur golfers, when divided into college and non-collegiate golfers, showed significant differences in six of the fifteen variables.
6. When the Pan-American athletes and the amateur golfers were compared there were significant differences in seven of the fifteen variables.

A DESCRIPTIVE STUDY OF THE PERSONALITY OF
SELECTED AMATEUR GOLFERS

by

Norma Diane Owens

A Thesis Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Physical Education

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Approved by

Maie Riley

APPROVAL SHEET

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The writer is also indebted to Miss Patsy Neal for the use of her study as a comparison in this thesis.

DEDICATION

I would like to dedicate this thesis to my father who has instilled in his children the love of education and desire for knowledge, and who has himself given most generously of his time and efforts to the advancement of higher education.

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CHAPTER I

INTRODUCTION

Aim at perfection in everything, though in most things it is unattainable. However, they who aim at it, and persevere, will come much nearer to it than those whose laziness and despondency make them give it up as unattainable. (4:475)

What is an athlete? What characteristics differentiate the champion from the "near-great"? How can the coach and the physical educator facilitate the development of potential "stars"? These are only a few of the questions which have been studied in regard to the athlete in recent years.

The athlete, like the mathematician, the historian, or the scientist, is an individual. He, like others, is constantly being influenced by his environment, his experiences, and his social interactions. Singularly and in combination, these influences are continually acting upon man. Man is not a static, unchanging being, but rather he relates and reacts to his total environment. The manner in which he relates and reacts is termed by psychologists as an expression of his personality. Accordingly, personality can be defined as the sum total of an individual's traits and values which manifest themselves as a dynamic unity in the ". . . behavior relations between an organism and its environment." (5:566)

It is in this area of " . . . human behavior that the main contribution of psychology to sports will be found." (59:14) Psychologists who have an interest in athletes are not seeking to control behavior, but rather to channel efforts toward greater motivation and self-understanding. Singer made the following statement about the personality of the athlete:

Personality represents a mystical conglomeration of qualities. Yet, the attitudes of the athlete toward self-development, self-realization, competition - his unique behavior - may well make the difference in skill attainment and athletic status. How and to what extent an athlete's personality make-up determines success is difficult to ascertain, but certainly such knowledge would provide valuable insights in coach-athlete-team effectiveness. (60:np)

Thus the presence of a trait is not the question in the differences in individual personalities, but rather the degree to which the trait differs from one individual to another. It is within this context that the writer has found study of the personality of amateur golfers of interest and value. Golf is a sport in which the individual is dependent upon his own efforts, his incentives, and his desires. He is responsible to no one for his actions; his decisions, good or bad, are his own. It is possible that if an individual, in this case a golfer, could understand his motives and his behavior he would be able to utilize his strengths to greater advantage and improve his weaknesses more readily. Very often the coach is able to stimulate greater insight into the psychological and mechanical factors affecting effective performance.

The study of personality can be of aid to coaches and athletes if proper use is made of the information. Rushall suggested the following possibilities as uses of personality information:

1. It may provide a provision of a better understanding of an individual's behavior tendencies. This information can be used to predict behaviors and to eliminate situations that will produce undesirable behavior.
2. Coach-player interactions can be better affected by producing situations which will eliminate undesirable consequences.
3. Player manipulation may be improved to the extent of trying to maximize training and competitive performance and participation. This would lead to a rise in efficiency of the training system or program.
4. If a relationship between personality and physical performance exists, one could differentiate, for selective purposes, between players of equal skill.
5. Repeated testing of players gives an indication of change in athletes. The coach can then readjust his players control procedures to these changes.
6. Knowledge of individual motivation and disposition to act can bring individuality into one's program which will help develop each individual player's potential for performance. (58:np)

A good coach is trained to spot potential talent, but a coach is not a psychologist trained to go beyond the surface into the deeper understanding of human actions and motives. The coach can only go as far as the players will allow either by their actions or conversations. The study of personality can assist coaches and players to gain a better understanding of the athlete as an individual. An individual's personality as reflected by his

attitude can be the difference in success and failure in athletics. This may be based on his attitude toward "self-development, self-realization, competition - his unique behavior." (60:np)

ANALYSIS OF THE PROBLEM AND DEFINITION

The Problem

The primary purpose of this study was to determine whether there are similar personality patterns among a group of male college athletes.

The secondary purpose of this study was to compare a group of male college athletes with a group of non-athletes. Subjects consisted of members of the Delta Psi Fraternity. The research schedule was reported to read:

Definition of Terms

For the purpose of this study the following terms were defined:

Personality: The sum total of an individual's traits and characteristics which determine his behavior.

College Athlete: A male student who is a member of a college or university athletic team.

Non-Athlete: A male student who is not a member of a college or university athletic team.

CHAPTER II

STATEMENT OF THE PROBLEM AND DEFINITIONS

The Problem

The primary purpose of this study was to determine whether there are similar personality patterns among a group of women amateur golfers.

The secondary purpose of this study was to compare a group of women amateur golfers with a group of women Pan-American athletes whose scores on the Edwards Personal Preference Schedule were reported by Neal.

Definition of Terms

For the purpose of this study the following terms were defined:

Personality. The sum total of an individual's traits and values which manifest themselves as a dynamic unity in the " . . . behavior relations between an organism and its environment." (5:566)

Collegiate golfer. An amateur golfer who is currently enrolled in a college or university, and one who has a handicap of eight or less strokes and qualifies to participate in United States Golf Association tournaments.

Noncollegiate golfer. An amateur golfer who is not currently enrolled in a college or university, and one who has

a handicap of eight or less strokes and qualifies to participate in USGA tournaments.

Personality variables. Continuous traits which are factors of personality as described by the Edwards Personal Preference Schedule. (8:14)

1. Achievement (ach): To do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of significance, to do a difficult job well, to solve problems and puzzles, to be able to do things better than others, to write a great novel or play.
2. Deference (def): To get suggestions from others, to find out what others think, to follow instructions and do what is expected, to praise others, to tell others that they have done a good job, to accept the leadership of others, to read about great men, to conform to custom and to avoid the unconventional, to let others make the decisions.
3. Order (ord): To have written work neat and organized, to make plans before starting on a difficult task, to have things organized, to keep things neat and orderly, to make advanced plans when taking a trip, to organize details of work, to keep letters and files according to some system, to have meals organized and a definite time for eating, to have things arranged so that they run smoothly without change.
4. Exhibition (exh): To say witty and clever things, to tell amusing jokes and stories, to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to say things just to see what effect it will have on others, to talk about personal achievements, to be the center of attention, to use words that others do not know the meaning of, to ask questions others cannot answer.
5. Autonomy (aut): To be able to come and go as desired, to say what one thinks about things, to be independent of others in making decisions, to feel free to do what one wants, to do things that are unconventional, to avoid situations where one is expected to conform, to do things without regard to what others may think, to criticize those in positions of authority, to avoid responsibilities and obligations.

6. Affiliation (aff): To be loyal to friends, to participate in friendly groups, to do things for friends, to form new friendships, to make as many friends as possible, to share things with friends, to do things with friends rather than alone, to form strong attachments, to write letters to friends.
7. Intracception (int): To analyze one's motives and feelings, to observe others, to understand how others feel about problems, to put one's self in another's place, to judge people by why they do things rather than by what they do, to analyze the behavior of others, to analyze the motives of others, to predict how others will act.
8. Succorance (suc): To have others provide help when in trouble, to seek encouragement from others, to have others be kindly, to have others be sympathetic and understanding about personal problems, to receive a great deal of affection from others, to have others do favors cheerfully, to be helped by others when depressed, to have others feel sorry when one is sick, to have a fuss made over one when hurt.
9. Dominance (dom): To argue for one's point of view, to be a leader in groups to which one belongs, to be regarded by others as a leader, to be elected or appointed chairman of committees, to make group decisions, to settle arguments and disputes between others, to persuade and influence others to do what one wants, to supervise and direct the actions of others, to tell others how to do their jobs.
10. Abasement (aba): To feel guilty when one does something wrong, to accept blame when things do not go right, to feel that personal pain and misery suffered does more good than harm, to feel the need for punishment for wrong doing, to feel better when giving in and avoiding a fight than when having one's own way, to feel the need for confession of errors, to feel depressed by inability to handle situations, to feel timid in the presence of superiors, to feel inferior to others in most respects.
11. Nurturance (nur): To help friends when they are in trouble, to assist others less fortunate, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems.

12. Change (chg): To do new and different things, to travel, to meet new people, to experience novelty and change in daily routine, to experiment and try new things, to eat in new and different places, to try new and different jobs, to move about the country and live in different places, to participate in new fads and fashions.
13. Endurance (end): To keep at a job until it is finished, to complete any job undertaken, to work hard at a task, to keep at a puzzle or problem until it is solved, to work at a single job before taking on others, to stay up late working in order to get a job done, to put in long hours of work without distraction, to stick at a problem even though it may seem as if no progress is being made, to avoid being interrupted while at work.
14. Heterosexuality (het): To go out with members of the opposite sex, to engage in social activities with the opposite sex, to be in love with someone of the opposite sex, to kiss those of the opposite sex, to be regarded as physically attractive by those of the opposite sex, to participate in discussions about sex, to read books and plays involving sex, to listen to or to tell jokes involving sex, to become sexually excited.
15. Aggression (agg): To attack contrary points of view, to tell others what one thinks about them, to criticize others publicly, to make fun of others, to tell others off when disagreeing with them, to get revenge for insults, to become angry, to blame others when things go wrong, to read newspaper accounts of violence.

CHAPTER III

REVIEW OF LITERATURE

Many books have been written to explain the behavior of individuals in terms of personality traits and characteristics. Consequently, there are almost as many definitions of personality as there are books. "There is no single correct definition of personality; usage has sanctioned too many. Personality is one of the most abstract words in our language." (1:25) The following are examples of definitions of personality.

Allport defined personality as ". . . the dynamic organizations within the individual of those psychophysical systems that determine his unique adjustments to his environment." (1:48) In his definition, Allport clarified the following terms:

Dynamic organization must be regarded as constantly evolving and changing, as motivational and as self-regulating. Psychophysical systems are habits, specific and general attitudes, sentiments and dispositions. Determine--personality is something and does something. Adjustments must not be considered as merely reactive adaptations such as plants and animals make. The adjustments of men contain a great amount of spontaneous, creative behavior toward the environment. (1:48-50)

Gordon, defining personality in terms of traits, stated that personality includes the enduring characteristics of the drives and traits which modulate the individual behavior throughout his life. (11:4) He seemed to indicate that the determining factor is the degree to which these motives and traits exist in individuals.

Harsh related personality to man's ability in adapting to the environment. (12:5)

. . . uniqueness of personality is not just the sum of the characteristics, or even the pattern of many traits scores, but is, rather, the way the traits are organized and interrelated. (12:6)

Dalton (7:13) and Thorpe (19:3) defined personality in terms of social interaction requiring constant adjustment and new learning by the individual. This in turn brings about modifications in behavioral responses to others.

Another approach to personality is based on the influence of heredity. Eysenck stated that "it is commonly believed that heredity plays a considerable part in determining an individual's personality." (9:168) Within this context, he referred to the definitions of personality as

. . . the integrated organization of all the cognitive, affective, conative, and physical characteristics of an individual as it manifests itself in the focal distinctness to others. (9:168)

The personality studies which have been conducted on athletes relate primarily to determining individual traits. These traits are response characteristics which " . . . vary in degree of intensity in and among individuals." (19:244) In observing individuals, recurrent actions are apparent in similar situations that have been explained in terms of behavioral patterns. Recurrent patterns are inferred in an environmental context and may be altered or modified by a change in the context of the environment. (3:335)

Types of Personality Measures

Personality measurements have been done in the form of questionnaires, inventories, observations and interviews. These are grouped into two classes of self-description: the interview and the paper and pencil test.

The interview may range from a free and unstructured interaction to one specifically structured. The subject is given freedom to describe himself in the selection of particulars and he is able to make clarifications of his statements. The limitations of this method are in the qualifications of the interviewer and the analysis of data. (16:133-34) The situational test and the interview require direct observation of behavior by the interviewer. In the analysis of data, the method of content analysis is used. Verbal expression is categorized and scores are obtained on the range of verbal expression. (16:40)

The paper and pencil tests are used most frequently in the assessment of personality. The subject responds to a more structured and restrictive situation. The tests involve written statements. The subject chooses one and indicates his choice on an answer sheet. These are more reliable and objective. Comparisons can be made directly by scoring methods. (16:129)

There were several significant events which fostered the use of paper and pencil tests. The first was the use of intelligence tests. If these tests could be used as indicators of intelligence, then similar tests could be used as predictors of other human behavior. (16:143) The second and perhaps the most

influential event was the actual construction and use of a personality test by Woodworth in 1919. During World War I, there was a need to screen men entering the service who were unfit for combat. The general procedure had been individual psychiatric interviews. This was not feasible with the increased number of men going into service. The test which was constructed by Woodworth was administered to the recruits. It focused on maladjustment. (16:143)

Two main characteristics of the early tests are worthy of noting. They were based on face validity; the test measured what the investigator assumed it was measuring. The other, closely related, was the assumption of unidimensionality which means that the test focused on but one aspect or trait of personality and was summarized into one composite score. (16:143) Unidimensional tests are used today. However, the interest in one variable is clearly defined by the testor. This is to not assume an overall personality function on the basis of one variable. Taylor's True-False Manifest Anxiety Scale and the California F Scale by Adorno et al., are examples of unidimensional tests. (16:144)

The projective technique is characterized by an unstructured task, as the Rorschach ink blot test, which permits an almost unlimited variety of responses. This is thought to allow the individual to structure his own situation, interpreting the task as he perceives it. Through this freedom he reveals his whole personality in respect to fears, striving, conflicts, aggressions and so forth. It is not limited to individual traits. The

interpretations, however, require a trained psychologist.

(2:564)

Multidimensional Self-Report measures are used more widely. The researcher is seeking a description of personality and the basis of the interaction of many variables as defined by a selected test. The Minnesota Multiphasic Personality Inventory is an example of a multidimensional measure. (16:148)

The Minnesota Multiphasic Personality Inventory was constructed by Hathaway and McKinley. It consists of 550 affirmative statements which the subject answers True, False or Cannot Say. There are nine original scales and four validating scales.

Originally the scales consisted of items that differentiated between a specified clinical group and a normal control group of approximately 700 persons. The scales were thus developed empirically by criterion keying of items, the criterion being traditional psychiatric diagnosis. (2:499)

The Minnesota Multiphasic Personality Inventory has the following limitations:

1. inadequate reliability of some of the scales,
2. the size of the representativeness of the normative sample,
3. may be indifferent in nationwide standardization.

(3:503)

The Sixteen Personality Factor Questionnaire, developed by Cattell, yields sixteen trait scores. In his efforts to develop the inventory, he compiled a list of 171 traits. These were grouped and a factor analysis was done. "Empirical validation data included average profiles for various occupational group and psychiatric syndromes." (2:510)

Gough developed the California Psychological Inventory which provides a survey of an individual in regard to social interaction. He was interested in the favorable characteristics of personality rather than the pathological aspects. The responses to 480 True-False items give the total profile of the individual. (3:323, 326)

The Edward Personal Preference Schedule is a "forced-choice" test in which the individual chooses between two items on the basis of "social desirability." The sentences are arranged so the subject's choice will indicate the relative strength of the fifteen manifest needs measured by the inventory. Pairing of the sentences is such that the choice is made between two needs rather than one being better than the other. (3:332)

"The test assumes that all people have all of the traits, but that personality includes the extent to which the various traits are represented in the individual." (11:6)

It should be mentioned that the scores of the various inventories are not absolute. They are relative to the group being studied and to the group used in determining the standards of the test. The norms should be appropriate to the particular group in the comparison. (11:6)

Related Studies

It is generally thought that athletes, as a group, have certain behavioral characteristics which are similar. It is not known, however, whether these are the result of participation or

if particular kinds of individuals are attracted to certain sports. (13:545, 547; 38:270; 43:163) The research which has been conducted on the personalities of athletes has been generally of three types:

1. to determine the difference in personalities among athletes or physical activity groups,
2. to determine if outstanding performers in sports have distinguishing personality traits,
3. to determine whether participation in or observation of play in sports gives rise to changes in personality dynamics. (13:544)

The following studies have been grouped according to the above areas. The first area relates to the comparison of athletes and nonathletes in physical activities.

Studies Comparing Athletes and Nonathletes

Personality development was studied at the college level by Werner. (45) He was concerned with personality characteristics as a result of participation in athletics. If athletic participation in college has an effect on personality structure, it would be expected to be greater in individuals with little previous experience in athletics than on "accomplished" athletes. The subjects were 752 entering cadets at the United States Military Academy. Four hundred and fifty-four cadets were designated as athletes on the basis of high school participation and 191 were designated as nonparticipants. The Cattell Sixteen Personality Factor Test was administered shortly after entrance and prior to the graduation of the remaining 340 athletes and 116 nonparticipants.

There were significant differences in seven of the sixteen factors. There were no significant differences between the groups in total change. The profiles of both groups were similar at entrance and at graduation, but they were more similar at entrance. The results are interesting in regard to the great emphasis placed on athletics at the Academy. (45)

Schudel (42) studied the psychological characteristics of athletes and nonparticipants at three levels: junior high school (ninth grade), senior high school (twelfth grade), and college (junior and senior years). He was interested in determining if there were differences in athletic groups composed of outstanding players, regular players and substitute players in team sports. The California Psychological Inventory, which deals with social living and social interaction, was administered. The results indicated differences between athletes and nonathletes. The athletes of the ninth and twelfth grades possessed greater personal-social characteristics than nonathletes of the same grades. These were in the categories of sociability, greater personal worth, greater conventional responses to social situations and more capability of achieving a situation where conformity is necessary.

The nonathletes at the college level appeared to have greater desirable personal-social characteristics. They possessed more qualities leading to status. They were more tolerant, intellectual, conscientious and responsible and were more interested in others. The athletes, however, were more conventional in

responding to social situations. One of the main differences between the high school and college athletes was in status. The younger boys appeared to have a higher overall status than the older boys. (42)

Another personality study of high school athletes and nonparticipants was done by Slusher. (44) His subjects were 400 athletes who had received sports awards representing five sports (baseball, football, basketball, swimming, and wrestling) and 100 nonparticipants. The Minnesota Multiphasic Personality Inventory and Lorge-Thorndike Intelligence Test were used. The results showed the football group having a strong neurotic profile, using physical symptoms as a means of solving conflicts; the wrestling group also tended toward a neurotic profile, having a tendency toward abnormal fears, worry and difficulty in concentrating; the baseball group gave evidence of risk taking, emotional excitement and extreme enthusiasm; the swimming group was closest to the nonparticipants, being lower in psychopathic deviation and femininity.

Slusher indicated that it would be expected to have the athlete score lower in femininity but not as low as was evidenced by all groups. A second point was brought out in regard to the high hypochondriasis scores of the athletes. The swimming group was the only one in which there were not significant differences in hypochondriasis scores. He suggested that the other groups showed abnormal concern over bodily functions and physical symptoms. This may be indicated by excessive taping for the prevention of athletic injuries. (44)

Lareau (49) investigated the relationship between personal and social adjustment and athletic competition of the varsity type among junior high school girls. The study was conducted in a three-school area which fostered interschool rivalry in eighth grade basketball and softball. The competitive atmosphere was enhanced by local publicity, travel, awards, and the title of "city champions" to the winner. The UC Interest Inventory was administered during the first week of spring semester before competition began and the last week of spring semester after competition ended. The subjects were divided into three groups: team members, those who participated on the varsity; an interest group, those who tried out for the team but did not make it; and a non-interest group, those with little or no interest in varsity competition. Differences were found within the groups and between the groups both before and after competition. There were noticeable changes in personal and social adjustments among and between groups.

The team group was higher in deference toward their parents, dominance, achievement attitudes, extraversion, emotional stability and social attitudes. The interest group lost interest in vigorous activity and competitive type activity. It was highest in anxiety and introversion, and fluctuated between trait patterns of the team and non-interest groups. The non-interest group was less popular and had fewer leaders. They were less active in clubs and organizations, high in introversion, and autonomous or rebellious against parents.

Ramsey (57) conducted a study to determine if there were differences in personality variables between the highly skilled girls participating in high school varsity competition and those participating in Girls' Athletic Associations. The varsity group consisted of girls from Texas and Iowa who participated on interscholastic basketball teams. These states differ as to emphasis on interscholastics. Iowa is known to have one of the most intense and competitive programs in the United States, receiving radio and television coverage of their State Championship Tournaments. In Texas the program is more on the local level. The non-varsity group was selected from Illinois which has a very highly organized and active Girls' Athletic Association on a state-wide basis.

The Edwards Personal Preference Schedule and the Mercer Physical Education Attitude Inventory were administered. In comparing the varsity athletes, Iowa was high in heterosexuality and aggression, and Texas was high in deference, succorance and order. The Illinois group was higher in dominance and exhibition than the Iowa-Texas group. The leadership trait was more dominant in the intramural group than the varsity group, whereas the varsity group scored higher in helping others. (57:77-78)

Studies on the Selection of Activities by Individuals

A second area of study has concentrated on the selection of certain activities by individuals. The activities have been grouped into team, individual and individual-team preferences.

Hein (48) compared the personality traits of college women to their selection of physical education activities. The subjects were students in residence halls at Woman's College of The University of North Carolina. A questionnaire was used to obtain a group of subjects with similar choices of activities. The Bernreuter Personality Inventory was administered to the subjects chosen. The scores were compared to the established norms on the Bernreuter Scales. The subjects were then sub-grouped into a physical education major group, a dance group, a non-activity group and a team sport group.

The no-activity group was more self-sufficient than the team sport group and less sociable than the physical education major and team groups. The dance group showed greater introversion and neurotic tendencies and less stability than the physical education major group.

Booth (20, 47) used the Minnesota Multiphasic Personality Inventory to compare the personality traits of 286 college athletes and nonathletes who were sub-grouped according to team, individual or individual-team sports preferences. He found that differences existed between the classes (freshmen and upperclassmen) among the groups and in sports preference. The varsity athletes of individual sports scored higher in depression and psychasthenia; the varsity athletes scored higher in dominance; the nonathletes were higher in interest and the upperclass non-athletes were higher in social response.

Niblock (51) studied the personality traits and intelligence of female athletes and nonparticipants. The athletes were sub-grouped into team, individual and individual-team preference. The Guilford-Zimmerman Temperament Survey was administered with the following results: athletes scored higher in general activity, ascendancy, sociability and emotional stability; and the non-participant and group athletes (total) were more thoughtful and reflective than individual athletes.

Flanagan (23) did a study on why some individuals choose certain type activities. The subjects were 221 male students at the University of California enrolled in six activity classes (basketball, boxing, swimming, volleyball, badminton and fencing). The inventory used was a combination of four others: Guilford-Martin Inventory (masculine-feminine characteristics), Allport's Ascendence-Submission Scale, Guilford's Introversion-Extroversion Scale and Smith's Human Behavior Inventory (emotional stability). (23:314)

Fencers were more ascendent than basketball and volleyball players and boxers. Fencers were more feminine than basketball players, and badminton players were more extroverted than volleyball players who were more emotionally unstable than basketball players.

Flanagan relates that fencers show extroversion due to the nature of the sport. They cannot depend on team members and must be dominant for success. He also thinks that the volleyball players took the course because of inferior feelings toward their

athletic ability, thinking that volleyball would give them a feeling of belonging.

Studies Relating to the Highly Skilled

The third area of interest relating to personality studies on athletes focuses on the highly skilled. This area is becoming more popular with the increased concern on highly structured competitive athletics. The studies have not indicated if the participation is the factor in personality development. They only indicate the relative pattern of traits existing at the time of testing. The causal factor is not known.

Knoll (30) studied ninety-four amateur and collegiate wrestlers using the Cattell Sixteen Personality Factor Questionnaire and the Minnesota Multiphasic Personality Inventory. The wrestlers were grouped on the basis of skill level: (1) Superior group, consisting of twenty-eight United States Olympic team representatives and NCAA or NAIA champion or place winners; (2) Excellent group, consisting of thirty-three collegiate varsity representatives; and (3) Average or below group, consisting of thirty-three wrestlers. The wrestlers differed significantly from the norms on factors indicating tough-mindedness, self-reliance and masculinity. There was no significant discrimination indicated among the three groups of wrestlers.

Parson (56) studied the personality traits of representative swimmers to the national championship in Vancouver, British Columbia. The subjects were champion swimmers reaching the finals and non-selected champion swimmers not gaining representative

honors. The Cattell Sixteen Personality Factor Questionnaire was given. Comparisons were made between the swimmers and general population from which the swimmers differed in fifteen of the sixteen factors. There were no significant differences found between the selected and non-selected swimmers. However, there were, among the male and female champion swimmers, differences in dominance, emotional stability, sensitivity and conventional and conservative factors. (56:68-70)

Olson (54) was interested in the personality differences among outstanding male tennis players. His study consisted of two parts. First, he used a questionnaire to obtain a list of players, in order of skill level, from tennis experts. These were classified into "champion" and "near greats." The second phase consisted of personal interviews with the players selected. The following personal impressions were most significant:

1. The champion appeared to be more purposefully intense and serious. Their aggressiveness is directed toward a recognizable external object while the near greats seem to focus on something inside themselves not easily recognized by others.
2. The near-greats are aware of the crowd reaction to a greater degree than the champion.
3. The champion seldom appears bothered during a match.
4. The champion expresses a great desire and need for the extreme emotions of great exhilaration after a win, and deep depression after a loss. This is not evident in the near-great.
5. The near-greats seem to feel the burden of being expected to win more than the champions. (54:64)

LaPlace (34) studied personality and its relationship to professional baseball experience. The subjects were grouped on the basis of success and non-success in baseball as indicated by the major and minor leagues. The Minnesota Multiphasic Inventory was administered and a biographical sheet was used to compare the experience of the two groups. The major league players indicated a strong "drive" evidenced by ambitiousness, aggressiveness and vigorousness with self-discipline and adjustment. Other traits noticed were a tendency to worry and sensitivity. The minor league players also indicated a strong "drive." However, other traits seemed to make it ineffective. They indicated a lack of self-discipline and inability to adjust to their occupation in regard to requiring initiative and social contact. They also showed a strong tendency to sensitivity. (34:317)

The personality traits of ninety-seven women of the 1964 Olympic Team were studied by Peterson. (41) He administered the Cattell Sixteen Personality Factor Test. The results indicated that individual sports women were more dominant and aggressive, adventurous, sensitive, imaginative, radical, self-sufficient, and resourceful than team sports women, but less sophisticated.

Malumphy (36) studied the personality traits of junior and senior girls with two years of intercollegiate competition. There were five groups: Nonparticipants, individual sports group (tennis, golf, fencing, swimming, and archery), a subjectively rated group (gymnastics, basketball, softball, and field hockey), team sports group, and a team-individual sports group. The Cattell

Sixteen Personality Factor Questionnaire and a data sheet were used.

1. The individual group was less anxious than the team sports group, more venturesome and extroverted and more tough-minded than nonparticipant and displayed more leadership than other groups.
2. The subjectively-judged group was less anxious than the team sports groups, more conscientious than other groups, more tough-minded and "tough-poised" than non-participants, more venturesome and extroverted than the team and individual-team group, and possessed more leadership than other groups.
3. The team sports group showed less leadership, and were less venturesome and extroverted than the individual and subjectively rated group, but more reserved and tough-minded than nonparticipants.
4. The team-individual group was less conscientious than the subjectively rated group, less venturesome and extroverted than the individual, subjectively rated and nonparticipant groups, evidenced less leadership than individual and subjectively rated groups, and more outgoing than the team sports group.
5. The nonparticipants were less conscientious than the subjectively rated group, less tough-minded, less "tough-poised" and evidenced less leadership than the individual and subjectively rated groups. In addition, they were

more outgoing than team sports group and more imaginative, extroverted, and venturesome than the team-individual group.

It was interesting to note the difference in the tested personality profile and the subjective ratings of the groups by the advisors. The participants were viewed generally as more outgoing than indicated by the test profile.

Johnson (28) studied the personality traits of twelve National All-Americans representing football, lacrosse, wrestling, boxing, track and riflery. The Rorschach and House-Tree-Person Tests were used. The test results were interpreted separately by two experienced psychologists and projective test experts. They were unaware of the type of study and the identification of the subjects. The following points were found to be in agreement: There were indications of extreme aggression, uncontrolled effect (lacking strict emotional control), high and generalized anxiety, high level of intellectual aspiration and exceptional feelings of self-assurance. The House-Tree-Person Test results showed an unusual concern for physical power and perfection.

Husman (26) studied the aggression of nine college boxers and eight wrestlers before, during and after their season and prior to and after a match. The projective test was used. The Rosenzweig Picture-Frustration Study, six selected pictures from Murray's Thematic Apperception Test and a twenty-item sentence completion test were administered. These findings were compared to those found in administering the same tests to nine cross

country runners, not tested prior to and after each contest, and seventeen control subjects. Boxers showed less overall aggressive tendencies, less extrapunitive and more intrapunitive than other subjects.

Ogilvie (52) made a comparison of highly successful female swimmers of San Jose State College with Olympic male swimmers. Three standardized psychological tests were given: the Cattell Sixteen Personality Factor Form A and B, the Jackson Personality Research Form B and a Semantic Differential designed for swimmers. The results indicated differences from the general population on the Jackson Personality Scale on the following traits:

1. affiliation - both men and women swimmers were higher than the general population,
2. deference - women were higher,
3. succorance - women were higher, the men scored extremely low,
4. impulsivity - women were higher,
5. sentience - men were higher,
6. dominance - men were higher,
7. play - both men and women were considerably above the general population,
8. understanding - men and women were above the general population,
9. endurance - both men and women fell slightly above the average population,

10. aggression - women were significantly lower than the men who were close to the average population,
11. abasement - women were significantly higher than the men who were slightly lower than the average,
12. harm avoidance - men and women swimmers were lower,
13. achievement - both men and women were much higher than the average population,
14. social desirability - both men and women were much above the average.

The men and women competitors differ on the traits of impulsiveness, dominance, aggression, nurturance, succorance, and harm avoidance. Ogilvie speculated that these traits are those which receive cultural reinforcement due to sexual differences.

Kane (53) made a comparison of the profile of the San Jose State College 1966 women swimmers with that of the 1964 men's Olympic team. The Cattell Sixteen Personal Factor Test was administered. The San Jose State women tended to be tough-minded, emotionally stable, assertive, socially bold, and had reasonable self-control. They showed a low tendency toward neuroticism, and had a high leadership potential.

Neal (50) studied the personality traits of forty-seven women athletes representing the United States in the 1959 Pan-American Games. These women represented eight sports: equestrian (2), fencing (3), gymnastics (2), swimming and diving (12), tennis (1), track and field (9), basketball (11), and

volleyball (7). She was interested in determining if there were specific personality traits associated with outstanding women athletes and if so how they differed from the norm of college women. The Edwards Personal Preference Schedule was administered and the norms on the college women established by Edwards were used in comparing the groups. Forty-seven women athletes completed and returned the Edwards Personal Preference Schedule. However, only the test of the forty-two women who indicated some college background were used in comparison with the college norms established by Edwards.

The subjects' ages ranged from eighteen to forty-seven years. (50:27) Of those women completing the test, twenty-three were engaged in active competition at the time of the study. (50:29)

Neal indicated that the Pan-American athletes seemed an aggressive group with a desire to achieve. In group relations they seemed to be more reserved and preferred to do things individually. This seemed apparent also in their desire of independence in planning their lives and in their thinking. (50:33)

The results indicated statistically significant differences between the group of athletes with college training and the norm group on six variables. Differences in achievement, affiliation and aggression were significant at the one per cent level of confidence, and differences in order, autonomy and nurturance were significant at the five per cent level of confidence. (50:52)

Summary of the Studies

The studies presented have compared the personality profiles of athletes in three ways:

1. in the selection of physical activity,
2. in the changes in profile over a season or as a result of participation,
3. in level of skill achievement.

The results seem to indicate that a similar pattern of behavioral characteristics exists among athletes which differentiates them from nonparticipants. This does not deny the existence of the same characteristics in the nonparticipants. The difference is thought to be the degree to which the characteristics are manifested in the behavioral patterns of the individuals.

In the studies reviewed, the following personality traits appear higher in the athletes: in high school, leadership potential, activity minded, sociability, self-assurance, achievement oriented and extraversion. (35, 42, 51, 57) The college nonparticipant assumes a greater role in leadership and in attaining higher personal-social characteristics than the college athlete and he is higher in tolerance, thoughtfulness, status and responsibility. (42)

There is evidence which seems to support the theory that the differences exist as to choice of activity: team, individual, or individual-team sports. The personality traits which are most significant to the groups are the following: individual participants seem to be more extraverted, to have more leadership

qualities, resourcefulness, aggressiveness and sensitivity; whereas the team participants are more sociable, thoughtful and introverted. The individual-team participants possess a combination of team and individual characteristics and are higher overall in general activity. (36, 41, 47, 48, 51)

Desired skill achievement is another area in which the personality of athletes appears to differ. The studies described the champion as having a strong drive or great desire to achieve and possessing tremendous self-discipline. The mental attitude of a competitor cannot be overlooked. It plays a major role in his success or failure. He must also have self-assurance for he is constantly undergoing self-appraisal and re-evaluation in overcoming "doubt, staleness, and discouragement." (31:85)

From the evidence presented in these studies, one can conclude that the degree to which the prescribed personality characteristics are manifested in the individual is different in sport participants and nonparticipants. However, in the application of these generalizations one must consider the relationship between the population from which they are derived, and the population to which they are being applied. Likewise, one must consider if the sport has forced the personality syndrome or if the personality type sought the sport.

CHAPTER IV

PROCEDURE

Introduction

The primary purpose of this study was to determine whether there were similar personality patterns among women amateur golfers. The secondary purpose was to compare a group of women amateur golfers with a group of women Pan-American athletes whose scores on the Edwards Personal Preference Schedule were reported by Neal.

Test Selection

The Edwards Personal Preference Schedule was selected for use in this study. The writer, in selecting this test, considered several factors which were pertinent to this study. The first was the necessity of having a reliable instrument for testing. The statistical retest reliability coefficients of the fifteen factors defined by Edwards range from .74 to .88. No validity data were given. Secondly, the test had to have administrative feasibility. The Edwards Personal Preference Schedule requires from forty-five minutes to an hour to complete and does not have to be monitored. Therefore, it was feasible to administer through the mail. Thirdly, Edwards supplies normative data collected in testing 749 college women and 760 college men. Additional norms are given on the general population

of 4,031 men and 4,932 women. Finally, the Edwards Personal Preference Schedule is one of several instruments used in studying the personality of athletes. Since Neal used the same tool, comparison with her results was facilitated.

The Edwards Personal Preference Schedule was designed for use in counseling and research in personality theory. It is a forced choice test for social desirability and needs, indicated by the use of fifteen variables defined by Edwards. The individual must select one of two statements which better describes him, either of which may be socially desirable.

Subject Selection

The definition of amateur golfer for this study limited the subjects to those having a handicap of eight or less. The writer felt that an eight or less handicap was indicative of a fairly high degree of skill, and while it would limit the number of possible subjects, it would allow for a more select group of individuals.

Subjects were selected from two groups. A list was obtained of contestants participating in the 1968 Women's Intercollegiate Golf Tournament held at Duke University. This list included the college, school year, and handicap of each participant. Twenty colleges and universities from this list were selected which had girls participating in the tournament who had an eight or less handicap. A team member or an individual representative was chosen from each school for the purpose of

liasion. A rising senior or junior was preferred as the contact person. The writer, having participated in the 1968 Inter-collegiate Tournament, knew many of the girls personally and wrote to them directly.

A letter was sent to each representative requesting participation in the study. Qualified members of their school team were also requested to participate. Twenty-one letters were sent out; four were returned with incomplete or old addresses. From the remaining seventeen letters, thirty-one golfers agreed to participate in the study. Thirteen inventories were returned in time to use in the study. Nine of the eighteen not returned were from one college.

The subjects from the other group were members of the North and South Carolinas, West Virginia and Virginia's golf teams who compete bi-annually. The women were contacted personally by a representative of the Carolinas' golf team in May, 1968 during the spring matches in Roanoke, Virginia. Twenty-two women indicated they would participate in the study. Only twenty qualified to participate in the study. These women ranged in age from eighteen to fifty-four years with fifty-nine per cent of the women having had some college background. The women participating in the team matches are selected as being top amateurs from their respective states.

Securing the Data

A preliminary letter (Appendix B) was sent to each college representative explaining the study and requesting their cooperation. Enclosed with the letter was a post card addressed to the writer (Appendix B), indicating whether they would or would not participate in the study. If they agreed to participate and were a member of a team, they were asked to indicate the number of copies of the Edwards Personal Preference needed.

The Edwards Personal Preference Schedule, the answer sheets and the letter explaining the directions for the test completion were sent to those agreeing to participate. A self-addressed envelope and stamps were enclosed.

The women of the Carolinas' and Virginias' golf teams were given a letter of introduction by a selected representative and asked to take a copy of the Edwards Personal Preference Schedule if they agreed to participate in the study. The answer sheet and the letter explaining the directions for test completion were also included.

A data card (Appendix C) was included with each test to obtain the handicap and previous tournament experience of each subject.

Treatment of the Data

The Kruskal-Wallis one-way analysis of variance was used in this study because it does not assume a normal distribution.

It is a rank-sum test which is used to test the null hypothesis that k independent samples come from identical populations against the alternative that the mean of these populations are not all equal. (10:323)

This test utilizes the information in observation. (17:193)

The Kruskal-Wallis one-way analysis of variance was used in four procedures to determine if differences in personality existed among women amateur golfers. The data were organized in four ways:

1. The amateur golfers were grouped on a handicap basis. The divisions were 0-2 strokes, 3-5 strokes and 6-8 strokes.
2. The amateur golfers were divided into two groups, the collegiate amateur golfers and the noncollegiate amateur golfers.
3. The collegiate amateur golfers were divided into handicap divisions of 0-2 strokes, 3-5 strokes, and 6-8 strokes.
4. The noncollegiate amateur golfers were divided into handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes.

The Kruskal-Wallis one-way analysis of variance was also used in the comparison of the Pan-American athletes and the amateur golfers.

Personality Profile

A personality profile of the amateur golfers was plotted using the chart provided on the back of each answer sheet used

in taking the Edwards Personal Preference Schedule. The directions for plotting the chart and the means for interpreting the profile were provided in the Edwards Personal Preference Schedule Manual. (8:13)

CHAPTER V

ANALYSIS OF DATA

Introduction

The purpose of this study was to determine whether there were similar personality patterns among women amateur golfers. The secondary purpose was to compare a group of women amateur golfers with a group of Pan-American athletes whose scores on the Edwards Personal Preference Schedule were reported by Neal.

The amateur golfers who participated in this study were from two groups, collegiate amateur golfers who were currently enrolled in a college or university and noncollegiate amateur golfers who were members of the Virginias' and Carolinas' golf teams who compete bi-annually. The response for the two groups is given in Table I. It may be observed that the potential number of subjects, seventy-one, was somewhat greater than the thirty-three who participated. The handicap criteria limited the study in number, but the analysis was interpreted in light of thirty-three cases, or 47 per cent of the golfers contacted.

A summary of the information from the data cards is shown in Table II. The complete information is found in Appendix C. The range of the number of tournaments participated in by the amateur golfers was from 0 to 200+. The range of the number of victories was from 0 to 38. A few of the tournament victories

TABLE I
SUMMARY OF PARTICIPANT RESPONSES

Participants	Number	Per Cent
Collegiate golfers		
Contacted	31	
Willing to participate	14	
Test returned	13	42
Noncollegiate golfers		
Contacted and sent test	40	
Test returned	20	50
Total participants	33	47

TABLE II
SUMMARY OF DATA CARDS COMPLETED BY SUBJECTS*

Competitive Background	Number
Number of tournaments participated in	0-200+
Number of victories	0-38
Curtis Cup members	1
State Champions	10
Club Champions	11
Low Amateur in U. S. Open	2

* Detailed information in Appendix.

were the Women's National Seniors Championship, the Mid-Atlantic Championship, the North-South Amateur Championship, and low amateur in the Women's U. S. Open as well as numerous other LPGA sponsored tournaments. Many of the subjects were past and current holders of their state championships, one having won the state title ten times. A high honor in women's amateur golf is to be chosen as a representative of the United States as a member of the United States Curtis Cup Team. One of the subjects was so honored for several years.

Personality Profile

The primary purpose of this study was to determine whether there were similar personality patterns among women amateur golfers. From the statistical procedures used in this study, there seemed to be implications that similar personality patterns did exist among these amateur golfers. However, in order to present a graphic analysis of the similarities of the amateur golfers in comparison with the normal population as reported by Edwards, a personality profile was plotted.

A personality profile of the collegiate amateur golfers and the noncollegiate amateur golfers was plotted using the percentile scores converted from the mean scores of the two groups on each of the fifteen variables. A table for the conversion of the mean scores to percentiles was provided by Edwards in the Edwards Personal Preference Schedule Manual. (8:13)

The percentile scores converted from the mean scores of the women's normative group which were reported by Edwards were also plotted in order to obtain a basis for comparison with the normal population as to whether the amateur golfers were above or below the means reported by Edwards on the fifteen variables.

Figure 1, which was plotted on the chart provided by Edwards, (8:13) shows the percentile scores on the fifteen variables by the collegiate amateur golfers, the noncollegiate amateur golfers, and the normative group.

Edwards made no attempt to define precisely just what constitutes a high or low score on any of the personality variables. He felt that this is something that each user of the PPS can determine best for the particular group under observation and in terms of his own objectives. (8:10)

In regard to the normative group, 60 to 70 per cent of the individuals scored between the seventeenth and eighty-fourth percentiles; 15 per cent scored above the eighty-fourth percentile and below the seventeenth percentile. (8:10) However, the amateur golfers were considerably higher in the achievement variable than the normative group. The collegiate amateur golfers and the non-collegiate amateur golfers scored in the eighty-fourth and seventy-second percentiles respectively, and the normative group scored in the fifty-eighth percentile.

The deference variable also shows higher scores by the amateur golfers. The collegiate amateur golfers scored in the sixty-second percentile, the noncollegiate amateur golfers in the seventy-third percentile, and the normative group scored somewhat lower in the fiftieth percentile.

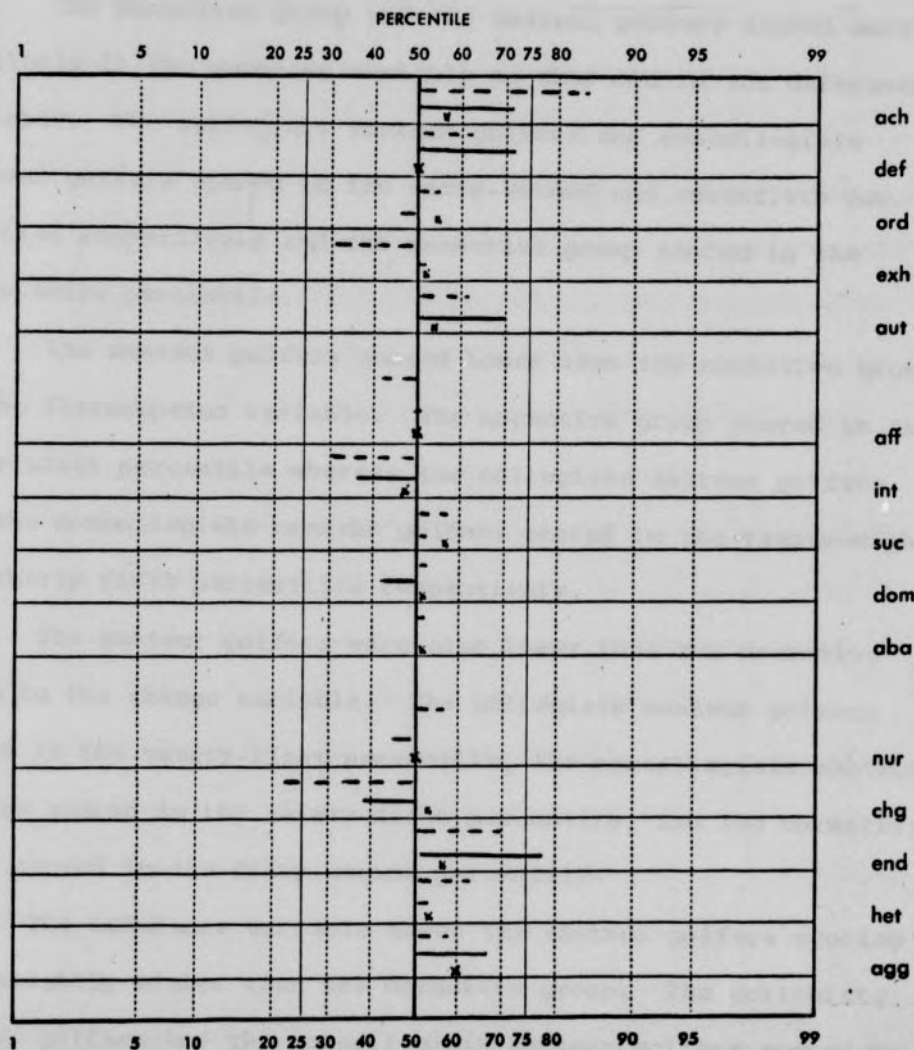


FIGURE 1

PERSONALITY PROFILE OF AMATEUR GOLFERS
AND NORMATIVE GROUP

- (-----) = Collegiate Golfers
 (———) = Noncollegiate Golfers
 (x) = Normative group

The normative group and the amateur golfers scored very similarly in the autonomy variable as they did in the deference variable. The collegiate amateur golfers and noncollegiate amateur golfers scored in the sixty-second and seventieth percentiles respectively and the normative group scored in the fifty-third percentile.

The amateur golfers scored lower than the normative group in the intraception variable. The normative group scored in the forty-ninth percentile whereas the collegiate amateur golfers and the noncollegiate amateur golfers scored in the twenty-eighth and thirty-fifth percentiles respectively.

The amateur golfers were also lower than the normative group in the change variable. The collegiate amateur golfers scored in the twenty-first percentile, the noncollegiate amateur golfers scored in the thirty-fifth percentile, and the normative group scored in the fifty-second percentile.

The endurance variable shows the amateur golfers scoring only slightly higher than the normative group. The collegiate amateur golfers and the noncollegiate amateur golfers scored in the sixty-ninth and seventy-sixth percentiles respectively, and the normative group scored in the fifty-seventh percentile.

The amateur golfers were slightly higher in the aggression variable than the normative group. The collegiate amateur golfers scored in the sixty-sixth percentile; the noncollegiates scored in the sixtieth percentile as did the normative group.

The normative group and the amateur golfers scored very similarly in the autonomy variable as they did in the deference variable. The collegiate amateur golfers and noncollegiate amateur golfers scored in the sixty-second and seventieth percentiles respectively and the normative group scored in the fifty-third percentile.

The amateur golfers scored lower than the normative group in the intraception variable. The normative group scored in the forty-ninth percentile whereas the collegiate amateur golfers and the noncollegiate amateur golfers scored in the twenty-eighth and thirty-fifth percentiles respectively.

The amateur golfers were also lower than the normative group in the change variable. The collegiate amateur golfers scored in the twenty-first percentile, the noncollegiate amateur golfers scored in the thirty-fifth percentile, and the normative group scored in the fifty-second percentile.

The endurance variable shows the amateur golfers scoring only slightly higher than the normative group. The collegiate amateur golfers and the noncollegiate amateur golfers scored in the sixty-ninth and seventy-sixth percentiles respectively, and the normative group scored in the fifty-seventh percentile.

The amateur golfers were slightly higher in the aggression variable than the normative group. The collegiate amateur golfers scored in the sixty-sixth percentile; the noncollegiates scored in the sixtieth percentile as did the normative group.

The amateur golfers and the normative group scored in a similar pattern in the order, dominance, abasement and nurturance variables. The noncollegiate amateur golfers scored in the lowest percentiles scoring between the forty-first and forty-sixth percentiles in the variables. The normative group scored between the fiftieth and fifty-fifth percentiles in the variables, and the collegiate amateur golfers scored between the greatest range, between the fifty-first and fifty-eighth percentiles in the variables.

The normative group and the noncollegiate golfers scored equally in the exhibition and affiliation variables scoring in the fifty-second and fiftieth percentiles respectively. The collegiate amateur golfers scored lower in exhibition and affiliation variables, scoring in the thirtieth and forty-first percentiles respectively.

The collegiate amateur golfers scored in the sixty-third percentile in the heterosexuality variable. This was higher than the noncollegiate amateur golfers and the normative group who both scored in the fifty-second percentile.

In the succorance variable, the normative group and collegiate golfers scored in the fifty-ninth percentile. The noncollegiate amateur golfers were slightly lower scoring in the fifty-first percentile.

Discussion of Personality Profile

In reference to Figure 1, page 42, it may be observed that the collegiate amateur golfers and the noncollegiate amateur

golfers scored higher than the normative group in several of the variables. This seemed to indicate a similar personality profile among these selected amateur golfers.

The profile of the amateur golfers appeared to indicate a group of women who are motivated to do their best, to be successful and to accomplish tasks requiring skill and effort (achievement). They appear to get suggestions from others and follow instructions as to what is expected (deference). However, they appear to desire independence in their thinking and actions (autonomy). They appear to have little concern in how others feel about problems and do not desire to place themselves in others' positions (intracception). They seem to work hard at given tasks, being able to continue for long periods of time without distraction or giving up (endurance). And they appear to be energetic and dynamic in their actions (aggression), yet conventional and conservative in attempting new and different innovations and experiences (change).

Presentation of Results of Comparisons Among the Golfers

The Kruskal-Wallis one-way analysis of variance (17) was used to determine if differences in personality existed among amateur golfers. The data were organized in four ways:

1. The thirty-three amateur golfers were divided into two groups, the collegiate amateur golfers and the noncollegiate amateur golfers.
2. The noncollegiate amateur golfers were divided into handicap divisions.

3. The collegiate amateur golfers were divided into handicap divisions.
4. The thirty-three amateur golfers were divided into handicap divisions.

For the purpose of clarification each procedure will be discussed separately, followed by interpretation of the data.

In discussing the results of the four procedures using the Kruskal-Wallis one-way analysis of variance to determine if differences in personality exist among the amateur golfers, it must be noted that Kruskal-Wallis one-way analysis of variance uses rank scores in its analysis, and not mean scores as reported in Table III, page 47. The mean scores were used only on obtaining the direction of any differences in two groups.

Collegiate golfers and noncollegiate golfers. When the amateur golfers were divided into the collegiate golfers and the noncollegiate golfers, there were significant differences in six of the fifteen variables. The collegiate golfers had higher means in three of the six variables, order, succorance and abasement. The noncollegiate golfers had higher means in the exhibition, autonomy and change variables. (Table IV, page 49)

Handicap divisions of the noncollegiate golfers. Significant differences were found in the achievement, order, interception and dominance variables when the noncollegiate golfers were grouped on a handicap basis. The handicap divisions were from 0-2 strokes, 3-5 strokes and 6-8 strokes. (Table V, page 50)

TABLE III

MEAN SCORES OF AMATEUR GOLFERS ON THE
EDWARDS PERSONAL PREFERENCE SCHEDULE

	Collegiate and Noncollegiate*		Handicap Group Thirty-three **			Handicap Noncollegiate***			Handicap Collegiate ****		
	Coll.	Non.	0-2	3-5	6-8	0-2	3-5	6-8	0-2	3-5	6-8
Achievement	16.92	15.10	16.22	15.08	16.25	15.75	15.14	14.77	16.60	15.00	20.66
Deference	12.69	13.61	14.33	13.83	13.00	15.75	13.57	14.11	13.20	14.00	9.66
Order	10.38	8.65	11.55	10.91	7.33	16.00	9.14	6.66	8.00	13.40	12.66
Exhibition	12.38	13.75	11.77	13.33	14.16	11.00	15.00	14.00	12.40	11.00	14.66
Autonomy	12.53	13.85	12.55	12.58	14.75	11.50	14.85	13.77	12.80	9.20	17.66
Affiliation	16.09	16.70	15.66	16.08	17.41	12.65	16.14	17.33	18.73	16.00	17.63
Intra-ception	14.38	14.65	16.33	13.50	14.41	14.25	14.42	15.00	17.60	12.20	12.66
Succorance	12.69	11.80	12.00	12.75	13.25	12.50	10.28	12.88	9.60	16.20	12.00
Dominance	13.84	12.60	11.55	14.16	13.16	10.25	14.57	12.11	12.60	13.60	16.33
Abasement	15.76	14.35	17.33	13.00	13.41	17.75	10.85	15.55	16.80	16.00	13.66
Nurturance	16.69	14.90	14.66	15.91	16.00	11.75	13.85	17.11	17.00	18.80	12.66

TABLE III (continued)

	Collegiate and Noncollegiate*		Handicap Group Thirty-three **			Handicap Noncollegiate ***			Handicap Collegiate ****		
	Coll.	Non.	0-2	3-5	6-8	0-2	3-5	6-8	0-2	3-5	6-8
Change	13.46	15.20	12.66	16.08	14.33	12.50	18.00	14.22	12.80	13.40	14.66
Endurance	15.46	16.05	17.55	16.08	14.25	18.25	16.00	15.11	17.00	16.20	11.66
Hetero- sexuality	16.00	14.25	15.53	14.83	16.75	15.25	15.71	15.55	15.80	13.60	20.33
Aggression	11.46	11.90	11.77	12.41	11.00	11.25	13.00	11.33	12.20	11.60	10.33

* N = 33

** N = 33

*** N = 20

**** N = 13

TABLE IV
 KRUSKAL-WALLIS ANALYSIS OF VARIANCE
 BETWEEN COLLEGIATE GOLFERS AND
 NONCOLLEGIATE GOLFERS

(N - 33)

Variable	H*
Achievement	2.25
Deference	.82
Order	3.92*
Exhibition	5.34*
Autonomy	4.87*
Affiliation	2.09
Intraception	1.94
Succorance	12.24*
Dominance	3.49
Abasement	6.10*
Nurturance	- 2.32
Change	10.48*
Endurance	3.34
Heterosexuality	3.53
Aggression	3.02

* H of 3.84 needed to be significant at 5 per cent level of confidence. (17:249)

TABLE V

KRUSKAL-WALLIS ANALYSIS OF VARIANCE
BETWEEN HANDICAP DIVISIONS OF
NONCOLLEGIATE GOLFERS

(N = 20)

Variable	H*
Achievement	6.72*
Deference	1.01
Order	8.16*
Exhibition	5.82
Autonomy	.67
Affiliation	.76
Intracception	6.03*
Succorance	3.04
Dominance	11.39*
Abasement	.70
Nurturance	1.45
Change	2.35
Endurance	.74
Heterosexuality	.10
Aggression	.76

* H of 5.99 needed to be significant at 5 per cent level of confidence. (17:249)

Handicap divisions of the collegiate golfers. When the collegiate golfers were grouped on a handicap basis in divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes, there was significant difference in the autonomy variable. (Table VI)

Handicap divisions of the thirty-three amateur golfers. There were no significant differences among the handicap divisions when they were grouped on a handicap basis of 0-2 strokes, 3-5 strokes and 6-8 strokes. (Table VII, page 53)

Discussion of Results

Collegiate golfers and noncollegiate golfers. The thirty-three amateurs were separated into groups, collegiate golfers and noncollegiate golfers. The Kruskal-Wallis one-way analysis of variance was used to determine if differences in personality existed between the collegiate golfers and the noncollegiate golfers. Table III, page 47, shows the mean scores of collegiate golfers and noncollegiate golfers. Significant differences were found in the following variables:

Exhibition - to say witty and clever things, to tell amusing jokes and stories, to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to say things just to see what effect it will have on others, to talk about personal achievements, to be the center of attention, to use words that others do not know the meaning of, to ask questions others cannot answer. (8:14)

The noncollegiate golfers scored significantly higher in this variable than the collegiate golfers. It may be expected that the noncollegiate golfers would score higher in this variable

TABLE VI
 KRUSKAL-WALLIS ANALYSIS OF VARIANCE
 BETWEEN HANDICAP DIVISIONS OF
 COLLEGIATE GOLFERS

(N = 13)

Variable	H*
Achievement	2.93
Deference	2.84
Order	2.47
Exhibition	4.03
Autonomy	7.18*
Affiliation	.47
Intracception	4.31
Succorance	4.33
Dominance	1.40
Abasement	1.24
Nurturance	3.47
Change	.46
Endurance	2.64
Heterosexuality	3.08
Aggression	1.23

* H of 5.6264 needed to be significant at five per cent level of confidence. (17:283)

TABLE VII

KRUSKAL-WALLIS ANALYSIS OF VARIANCE
 BETWEEN HANDICAP DIVISIONS OF
 THIRTY-THREE AMATEUR GOLFERS

(N = 33)

Variable	H*
Achievement	.4084
Deference	.7776
Order	3.6790
Exhibition	3.4330
Autonomy	2.4016
Affiliation	1.0422
Intraception	2.1394
Succorance	.9218
Dominance	1.2734
Abasement	4.1135
Nurturance	1.2831
Change	2.3636
Endurance	1.7557
Heterosexuality	.7292
Aggression	1.0995

* H of 5.99 needed to be significant at 5 per cent level of confidence. (17:249)

than the collegiate golfers. Scoring high in this variable would perhaps indicate a need for self-recognition above that which is being received. The collegiate golfers are in an environmental setting in which recognition may be constantly reinforced for academic work, athletic achievement, school or social functions and other forms of peer approval. There would be more possibilities for continual group interaction and recognition while in college than when not in college.

Order - to have written work neat and organized, to make plans before starting on a difficult task, to have things organized, to keep things neat and orderly, to make advanced plans when taking a trip, to organize details of work, to keep letters and files according to some system, to have meals organized and a definite time to eat, to have things arranged so that they run smoothly without change. (8:14)

The collegiate amateur golfers scored significantly higher in this variable than the noncollegiate amateur golfers. The collegiate amateur golfers are in an educational environment in which the majority of their time is scheduled: scheduled classes, scheduled meals, scheduled practices, scheduled study, scheduled meetings, and scheduled bells ringing throughout the day and evenings to notify the students of the time. The collegiate amateur golfers within this setting would also be expected to do neat work, to be organized in completing and turning in work, and to be able to arrange their schedules and work in order to travel with their golf teams to participate in matches. The non-collegiate amateur golfers may not be subject to as scheduled living as the collegiate amateur golfers may appear. They may be more flexible and come and go as desired.

Autonomy - to be able to come and go as desired, to say what one thinks about things, to be independent of others in making decisions, to feel free to do what one wants, to do things that are unconventional, to avoid situations where one is expected to conform, to do things without regard to what others may think, to criticize those in positions of authority, to avoid responsibilities and obligations. (8:14)

The noncollegiate golfers scored significantly higher in this variable than the collegiate golfers. The collegiate golfers, in the educational setting, must subject themselves to some degree of conformity. They have responsibilities and obligations to themselves, their classmates, their school and their teammates. As members of golf teams they must represent their schools in an appropriate manner, thus conforming with set rules and regulations established by the institution.

The noncollegiate golfers may be more flexible. They may set their own standards, rather than following the conventional. Their scheduling is possibly not as regimented as the collegiates may appear.

Another factor which must be considered in the difference between the collegiate golfers and noncollegiate golfers in this variable is the age range. The collegiate golfers are younger in years and perhaps have had less experience in directing their own lives, having been under parental and institutional authorities for two-thirds of their years.

Succorance - to have others provide help when in trouble, to seek encouragement from others, to have others be sympathetic and understanding about personal problems, to receive a great deal of affection from others, to have other do favors cheerfully, to be helped by others when depressed, to have others feel sorry when one is sick, to have a fuss made over one when hurt. (8:14)

There was a significant difference in this variable between the collegiate golfers and noncollegiate golfers, the collegiate golfers scoring higher. Again, the environmental setting may be an influence. Close group friendships may be formed in which one's problems become everyone's. The "one-for-all" slogan of unity is often a binding force. However, in regard to athletics, one would not expect a high score in this variable. As Neal suggested, athletes do not want to be felt sorry for when hurt or injured. The athlete must learn that this is part of the game. (50:40)

Abasement - to feel guilty when one does something wrong, to accept blame when things do not go right, to feel that personal pain and misery suffered does more good than harm, to feel the need for punishment for wrong doing, to feel better when giving in and avoiding a fight than when having one's way, to feel the need for confession of errors, to feel timid in the presence of superiors, to feel inferior to others in most respects. (8:14)

The collegiate golfers scored significantly higher in this variable than the noncollegiate golfers. The collegiate golfers, as team members, may often feel they have let others down if they do not play well, whereas the noncollegiate golfers may account only to themselves. Also the collegiate golfers may find themselves in more situations where submission is better than belligerence.

Change - to do new and different things, to travel, to meet new people, to experience novelty and change in daily routine, to experiment and try new things, to eat in new and different places, to try new and different jobs, to move about the country and live in different places, to participate in new fads and fashions. (8:14)

The noncollegiate golfers scored higher in this variable than the collegiate golfers. It may be expected that the noncollegiates would be higher in this variable. The routine of the noncollegiate golfers is more apt to incur changes and new experiences. They have more flexibility and freedom not yet possible for college students.

Handicap divisions of the noncollegiate golfers. Significant differences were found in the achievement, order, interception and dominance variables when the noncollegiate golfers were grouped on a handicap basis. The handicap divisions were from 0-2 strokes, 3-5 strokes and 6-8 strokes. The results seemed to indicate that the noncollegiate golfers, when divided into the three handicap groups, were not from the same population in regard to these variables. Since the Kruskal-Wallis one-way analysis of variance dealt with three groups, it cannot be determined which direction was favored in reference to the mean scores in Table III.

Handicap divisions of the collegiate golfers. When the collegiate golfers were grouped on a handicap basis in divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes, there was a significant difference in the autonomy variable. This seemed to indicate that the collegiate golfers were not from the same population in this variable.

Handicap divisions of the thirty-three amateur golfers. There were no significant differences among the handicap divisions when all of the golfers were grouped on a handicap basis of 0-2

strokes, 3-5 strokes and 6-8 strokes. This seemed to indicate that the amateur golfers were from the same population in the fifteen variables.

Presentation of Results of Comparison of Pan-American Athletes and Amateur Golfers

The secondary purpose of this study was to compare a group of women amateur golfers with a group of women Pan-American athletes whose scores on the Edwards Personal Preference Schedule were reported by Neal.

The Kruskal-Wallis one-way analysis of variance was used to determine if differences in personality existed between the amateur golfers and the Pan-American athletes.

When the Pan-American athletes and the amateur golfers were compared, there were significant differences in seven of the fifteen variables. (Table VIII) The amateur golfers had higher means in three of the seven variables, achievement, abasement and nurturance. The Pan-American athletes had higher means in the autonomy, dominance, heterosexuality and aggression variables. (Table IX, page 60)

Discussion of Results

Achievement - to do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles, to be able to do things better than others, to write a great novel or play. (8:14)

TABLE VIII
 KRUSKAL-WALLIS ANALYSIS OF VARIANCE
 BETWEEN PAN-AMERICAN ATHLETES
 AND AMATEUR GOLFERS

(N = 71)

Variable	H*
Achievement	3.86*
Deference	.15
Order	3.18
Exhibition	1.75
Autonomy	6.01*
Affiliation	2.30
Intracception	1.16
Succorance	3.78
Dominance	4.23*
Abasement	4.05*
Nurturance	4.36*
Change	.89
Endurance	1.10
Heterosexuality	4.60*
Aggression	4.21*

* H of 3.84 needed to be significant at 5 per cent level of confidence. (17:249)

TABLE IX

MEAN SCORES OF AMATEUR GOLFERS AND PAN-AMERICAN
ATHLETES ON THE EDWARDS PERSONAL
PREFERENCE SCHEDULE

Variable	Pan-American Athletes *	Amateur Golfers**
Achievement	15.26	16.13
Deference	11.45	13.31
Order	9.14	10.37
Exhibition	15.21	12.86
Autonomy	13.69	13.51
Affiliation	14.86	16.27
Intraception	17.52	14.86
Succorance	11.21	11.89
Dominance	13.88	13.24
Abasement	14.00	14.55
Nurturance	14.76	15.00
Change	17.90	14.89
Endurance	12.48	16.10
Heterosexuality	15.45	15.27
Aggression	12.64	11.86

* N = 42

** N = 33

The Pan-American athletes and amateur golfers differed significantly in this variable. The golfers scoring higher in this variable are possibly motivated toward greater individual achievement. The golfer is dependent solely upon himself for his achievements - he accounts only to his own efforts in his victories and defeats. The pride and recognition of individual accomplishment and personal satisfaction may motivate the golfer to higher achievement.

In regard to athletics as a whole, this variable is important. Athletes must be motivated toward achievement. Many hours are spent practicing skills in order to perform and perform well. Competition provides the medium through which an athlete can test himself and his skills against those of others. This factor would influence the degree of success attained by an athlete for there must be a desire to achieve, to perform well, regardless of the sport.

Autonomy - to be able to come and go as desired, to say what one thinks about things, to be independent of others in making decisions, to feel free to do what one wants, to do things that are unconventional, to avoid situations where one is expected to conform, to do things without regard to what others may think, to criticize those in positions of authority, to avoid responsibilities and obligations. (8:14)

The Pan-American athletes scored significantly higher in this variable than the amateur golfers. An athlete working toward self-improvement cannot be overly dependent on others. The athlete must determine for himself what his limitations and capabilities are. Thereby, his lack of dependency on others may

be a source of his success in athletics. Neal suggested that the Pan-American athletes might score high in this variable because during the sports season they must follow closely rules and regulations, which are important aspects of training. Then, perhaps they avoid responsibilities and obligations outside their sports life. (50:38) This is not to imply that the athletes completely avoid responsibilities and obligations after the sports season, but rather they may refrain from the strict training schedules and demanding type life and enjoy more flexibility in their training and living. The golfer, however, would not be subject to as strict a training and conditioning program as would be expected of the Pan-American athletes. Golf is not as physically demanding and allows for more flexibility in individual conditioning.

Another reason why the Pan-American athletes scored significantly higher in this variable may be in regard to the social acceptability of sports activity. Golf is readily accepted as a lifetime sport in which one may compete for as long as he desires. However, an individual, who enjoys and continues to compete in team sports long after college or at such a time that society feels the woman's place is not running up and down a basketball court, may find it necessary to be autonomous in their actions and attitudes.

Dominance - to argue for one's point of view, to be a leader in groups to which one belongs, to be regarded by others as a leader, to be elected or appointed chairman of committees, to make group decisions, to settle

arguments and disputes between others, to persuade and influence others to do what one wants, to supervise and direct actions of others, to tell others how to do their jobs. (8:14)

The Pan-American athletes scored significantly higher in this variable than the amateur golfers. Golf, as an individual sport, would require less group interaction in organization than the team sports or the group efforts of the Pan-American athletes. Though there was a significant difference between the two groups, their scores in this variable were not extremely high in comparison to their other scores. For athletes must be able to work with teammates and coaches for extensive periods of time. They must, therefore, be compatible, for an athlete that is overbearing is hard to coach.

Abasement - to feel guilty when one does something wrong, to accept blame when things do not go right, to feel that personal pain and misery suffered does more good than harm, to feel the need for punishment for wrong doing, to feel better when giving in and avoiding a fight than when having one's own way, to feel the need for confession of errors, to feel depressed by inability to handle situations, to feel timid in the presence of superiors, to feel inferior to others in most respects. (8:14)

It was expected that the Pan-American athletes and the amateur golfers might score similarly in this variable. However, it was not expected that the golfers would score significantly higher.

Athletes in competition cannot take self-pity on themselves if things go wrong, if errors are made, or shots are missed. These things are part of the game, and are expected. This is not to imply that they are to be forgotten. But the athlete cannot let

mistakes interfere with the game; they must overcome them as the game continues. Golf is one sport in which the mental frame of mind is of the utmost importance. Thus, a positive attitude would be most imperative. This includes confidence in himself as an individual to adapt to the situations, mentally and physically, as they develop; confidence in his game that it is strong enough to adjust to the various conditions which may become apparent; and confidence in his ability to withstand the stress and strain of competition.

Nurturance - to help friends when they are in trouble, to assist others that are less fortunate, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems. (8:14)

There was a significant difference between the two groups in this variable, with the amateur golfers scoring the highest. It would not be expected that either group would be overly affectionate and sympathetic, when they would not expect it themselves. They must learn early in competition that injury is often part of the game, though not intentionally. An athlete would rather be participating than sitting on the bench watching and any reminder of the condition preventing his participation makes it worse. Athletes seem to be an independent type person.

Heterosexuality - to go out with members of the opposite sex, to engage in social activities with the opposite sex, to be in love with someone of the opposite sex, to kiss those of the opposite sex, to be regarded as physically attractive by those of the opposite sex, to participate

in discussions about the opposite sex, to read books and plays involving sex, to listen to and tell jokes involving sex, to become sexually excited. (8:14)

There was a significant difference in this variable between the Pan-American athletes and the amateur golfers. The Pan-American athletes scored higher than the golfers. This was interesting in view of the attitude toward women's sports and competition as causes for the development of masculine qualities in girls. Neal stated that

it is difficult to realize any connection between this personality trait and athletic performance, although many people possess a preconceived and possibly a false idea that women athletes are masculine and not interested in the opposite sex. (50:46)

Sports as a means of expression does not jeopardize a girl's femininity, but enhances her awareness and sensitivity to movement.

Aggression - to attack contrary points of view, to tell others what one thinks about them, to criticize others publicly, to make fun of others, to tell others off when disagreeing with them, to get revenge for insults, to become angry, to blame others when things go wrong, to read newspaper accounts of violence. (8:14)

The Pan-American athletes scored higher in this variable than the golfers. Aggression is a trait which might be expected of individuals participating in a high level of competition. However, aggression must be viewed, not in terms of anger, revenge, violence or criticism, but rather in terms of energy output in a desire to do one's best in order to perform well and win. This total involvement may be termed as an "all-out effort."

The Pan-American athletes, in light of the various sports represented, would possibly exhibit greater aggressive characteristics due to more physical or overt means of expression. In

golf, the competitor does not openly display aggression as a basketball player, fencer or even a swimmer slashing through the water. Their aggression is internally expressed in a more subdued mental desire. The very nature of the various sports would encourage or discourage the degree of aggressive expression possible.

The purpose of this study was to compare the aggression of two groups of male college students. The first group consisted of students who were members of a varsity sports team and the second group consisted of students who were not members of a varsity sports team. The study was conducted during the fall semester of 1964.

The subjects were selected from two groups of male college students. The first group consisted of students who were members of a varsity sports team and the second group consisted of students who were not members of a varsity sports team. The study was conducted during the fall semester of 1964. The subjects were selected from two groups of male college students. The first group consisted of students who were members of a varsity sports team and the second group consisted of students who were not members of a varsity sports team. The study was conducted during the fall semester of 1964.

The results of the study indicated that the students who were members of a varsity sports team displayed a higher degree of aggression than the students who were not members of a varsity sports team. This was true for all of the sports that were included in the study.

The study also indicated that the students who were members of a varsity sports team displayed a higher degree of aggression than the students who were not members of a varsity sports team. This was true for all of the sports that were included in the study.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The primary purpose of this study was to determine whether there were similar personality patterns among a group of women amateur golfers. The secondary purpose was to compare the group of women amateur golfers with a group of women Pan-American athletes whose scores on the Edwards Personal Preference Schedule were reported by Neal.

The Edwards Personal Preference Schedule was administered to subjects from two groups of women amateur golfers. An amateur golfer was defined as one who had a handicap of eight or less and who qualified to participate in USGA tournaments. One group was composed of thirteen collegiate amateur golfers who were currently enrolled in a college or university. The second group was composed of twenty amateur golfers who were members of the Virginias' and Carolinas' golf teams who compete bi-annually.

The Kruskal-Wallis one-way analysis of variance was used in four procedures to determine if differences in personality existed among women amateur golfers. The data were organized in four ways:

1. The amateur golfers were grouped on a handicap basis. The divisions were 0-2 strokes, 3-5 strokes and 6-9 strokes.

2. The amateur golfers were divided into two groups, the collegiate amateur golfers and the noncollegiate amateur golfers.
3. The collegiate amateur golfers were divided into handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes.
4. The noncollegiate amateur golfers were divided into the handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes.

The Kruskal-Wallis one-way analysis of variance was also used in the comparison of the Pan-American athletes and the amateur golfers.

The amateur golfers, when separated into collegiate and noncollegiate golfers and compared using the Kruskal-Wallis one-way analysis of variance, showed significant differences in six variables: exhibition, autonomy, succorance, abasement, change, and order.

When the collegiate golfers were grouped on a handicap basis with handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes, there was a significant difference in the autonomy variable.

The noncollegiate golfers, when grouped on a handicap basis as the collegiate golfers, showed significant differences in four variables: achievement, order, intraception and dominance.

There were no significant differences indicated among the thirty-three amateur golfers in the variables defined by Edwards when they were grouped on a handicap basis with the handicap divisions of 0-2 strokes, 3-5 strokes and 6-8 strokes.

There were significant differences in seven of the fifteen variables when the Pan-American athletes and the amateur golfers were compared. Of the seven variables, the amateur golfers had higher means in abasement, achievement and nurturance. The Pan-American athletes had higher means in four variables: autonomy, dominance, heterosexuality and aggression.

A personality profile was plotted of the collegiate amateur golfers and the noncollegiate amateur golfers using percentile scores converted from the mean scores on each of the fifteen variables of each group. The percentile scores from the mean scores of the normative group reported by Edwards were also plotted in order to have a basis for comparison with the normal population as to whether the amateur golfers were above or below the means reported by Edwards.

The amateur golfers appeared to be higher than the normative group in the achievement, deference, autonomy, endurance and aggression variables. They appeared to be lower than the normative group in the exhibition, intraception and change variables.

Conclusions

1. There seemed to be similar personality patterns among the amateur golfers in the achievement, autonomy, deference, intraception, endurance, aggression and change variables.
2. There were no significant differences among the

amateur golfers when grouped on a handicap basis.

The amateur golfers apparently came from the same population in regard to the fifteen variables defined by Edwards when grouped on this basis.

3. The collegiate golfers, when grouped on a handicap basis, showed a significant difference in the autonomy variable. The collegiate golfers, when grouped in this manner, apparently came from a different population in regard to the autonomy variable.
4. The noncollegiate golfers, when grouped on a handicap basis, showed significant differences in the achievement, order, intraception and dominance variables. The noncollegiate golfers apparently came from a different population in regard to these variables.
5. The amateur golfers, when divided into collegiate golfers and noncollegiate golfers, showed significant differences in six of the fifteen variables. The collegiate golfers had higher means in three of the six variables: order, succorance and abasement. The noncollegiate golfers had higher means in exhibition, autonomy and change.
6. When the Pan-American athletes and the amateur golfers were compared, there were significant differences in seven of the fifteen variables. The amateur golfers had higher means in three of the seven variables:

abatement, achievement and nurturance. The Pan-American athletes had higher means in autonomy, dominance, heterosexuality and aggression.

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APPENDIX A

TABLE X
 SCORES OF THE GOLFERS TAKING THE EDWARDS
 PERSONAL PREFERENCE SCHEDULE

N = 33

Golfer	Variables															
	Ach.	Def.	Ord.	Exh.	Aut.	Aff.	Int.	Suc.	Dom.	Aba.	Nur.	Chg.	End.	Het.	Agg.	Con.
1	14	15	12	8	15	16	11	11	7	21	16	16	25	9	18	12
2	17	11	16	16	5	21	18	9	13	15	13	13	18	25	0	14
3	16	17	20	9	13	16	14	14	17	18	8	5	16	12	14	10
4	16	20	16	11	16	12	14	16	4	17	10	16	14	15	13	12
5	13	8	7	11	15	19	17	15	18	21	17	10	17	9	14	13
6	18	12	9	12	12	18	15	7	10	18	20	15	13	16	15	12
7	16	18	6	19	7	10	19	6	11	16	14	20	20	18	10	12
8	21	13	4	12	13	14	19	10	18	8	18	9	20	18	13	13
9	15	15	14	8	17	15	20	10	6	22	16	10	15	18	9	12
10	18	10	12	19	21	12	8	9	18	17	5	20	21	10	10	13
11	13	10	5	10	16	14	16	18	8	13	14	24	9	24	16	11
12	9	18	12	14	15	21	14	10	15	8	18	6	15	21	15	10

TABLE X (continued)

Golfer	Variables															
	Ach.	Def.	Ord.	Exh.	Aut.	Aff.	Int.	Suc.	Dom.	Aba.	Nur.	Chg.	End.	Het.	Agg.	Con.
13	23	12	10	20	10	12	12	13	18	8	14	14	23	10	11	10
14	5	15	2	13	13	25	19	12	12	14	23	22	10	12	13	13
15	20	15	8	14	9	20	17	9	17	6	14	22	8	22	12	13
16	24	16	16	9	10	18	11	12	12	12	14	10	18	20	9	11
17	14	7	1	14	11	14	17	14	16	16	22	18	7	20	19	14
18	14	19	15	9	3	21	12	14	17	21	21	14	13	7	11	13
19	8	15	12	12	7	20	11	17	10	21	26	19	18	5	9	11
20	15	14	23	11	15	7	10	24	13	10	11	6	25	16	10	11
21	18	15	15	15	20	9	15	1	14	10	9	18	26	11	14	12
22	12	18	15	7	7	23	18	14	5	19	19	16	25	5	12	11
23	21	12	9	9	21	14	15	13	18	11	8	10	23	10	16	11
24	20	8	10	16	18	15	15	2	21	7	8	21	18	17	14	13
25	11	13	0	17	14	22	6	20	15	15	21	13	9	18	16	11
26	8	21	11	15	16	16	8	13	9	16	15	7	20	23	12	11
27	8	11	1	16	17	16	15	22	7	19	24	11	3	20	11	12

TABLE X (continued)

Golfer	Variable															
	Ach.	Def.	Ord.	Exh.	Aut.	Aff.	Int.	Suc.	Dom.	Aba.	Nur.	Chg.	End.	Het.	Agg.	Con.
28	17	15	1	13	8	13	22	14	10	20	19	17	14	18	9	14
29	18	16	10	17	10	20	15	10	14	10	25	10	12	17	6	11
30	23	13	10	14	17	13	11	16	14	14	12	11	16	18	8	12
31	18	13	3	16	13	17	21	8	10	23	15	23	12	12	6	10
32	23	6	6	15	18	18	15	10	20	3	12	19	12	23	10	12
33	16	10	12	15	18	22	12	9	15	14	14	14	7	20	12	11

TABLE XI

SCORES OF THE PAN-AMERICAN ATHLETES WITH SOME COLLEGE BACKGROUND
 TAKING THE EDWARDS PERSONAL PREFERENCE SCHEDULE

N = 42

Golfer	Variable														
	Ach.	Def.	Ord.	Exh.	Aut.	Aff.	Int.	Suc.	Dom.	Aba.	Nur.	Chg.	End.	Het.	Agg.
1	9	9	6	11	18	20	16	20	11	15	16	23	2	15	18
2	10	13	14	19	18	12	23	13	17	13	15	23	5	6	9
3	9	17	12	11	9	20	24	7	15	9	23	13	16	19	6
4	12	15	10	14	18	16	16	9	5	19	14	18	19	16	7
5	14	8	8	20	19	10	22	8	13	22	12	16	6	18	14
6	18	10	14	17	10	13	12	22	11	11	8	19	10	24	11
7	19	7	12	15	25	10	15	8	20	8	7	21	6	20	17
8	20	6	3	15	10	15	21	11	15	18	17	22	4	19	14
9	18	18	14	13	12	14	13	11	9	25	12	17	17	4	12
10	9	11	7	11	16	21	14	15	7	16	19	23	11	22	6
11	25	7	8	18	18	15	10	21	13	7	9	19	8	21	10
12	16	10	10	19	4	13	18	13	17	14	22	7	15	18	13

TABLE XI (continued)

Golfer	Variable														
	Ach.	Def.	Ord.	Exh.	Aut.	Aff.	Int.	Suc.	Dom.	Aba.	Nur.	Chg.	End.	Het.	Agg.
13	14	11	8	15	7	18	14	10	18	8	18	20	18	21	10
14	19	8	2	21	18	14	13	10	16	11	9	22	16	16	14
15	7	11	8	13	13	18	24	10	12	21	20	16	14	17	6
16	13	9	9	16	14	14	21	6	12	8	22	20	18	16	11
17	15	10	11	10	9	16	16	11	7	20	21	12	21	14	17
18	15	10	13	13	14	10	26	4	14	14	12	20	21	16	8
19	19	15	7	14	14	13	17	17	16	9	13	15	7	20	14
20	7	6	6	22	19	24	11	17	15	7	14	16	7	23	14
21	16	15	8	13	13	13	13	18	18	21	16	17	14	5	10
22	18	7	6	14	17	11	15	9	20	17	16	11	10	16	23
23	12	9	15	18	19	17	17	7	19	8	3	28	8	11	18
24	21	11	5	18	14	11	14	4	15	25	11	12	8	19	22
25	14	14	12	15	19	12	15	5	12	18	11	19	14	15	14
26	16	18	10	18	4	19	19	12	14	15	17	10	12	14	12

TABLE XI (continued)

Golfer	Variable														
	Ach.	Def.	Ord.	Exh.	Aut.	Aff.	Int.	Suc.	Dom.	Aba.	Nur.	Chg.	End.	Het.	Agg.
27	19	10	6	12	16	14	19	10	13	7	14	24	15	13	18
28	16	8	6	19	13	19	16	12	15	10	14	21	9	21	11
29	16	11	6	22	9	13	19	6	18	20	16	15	8	11	19
30	18	13	5	17	9	21	17	12	16	7	17	24	12	13	9
31	20	11	4	12	13	15	24	10	10	21	19	19	9	6	17
32	8	7	12	10	7	17	17	13	10	17	24	20	16	11	20
33	12	8	5	9	10	23	18	15	14	16	24	19	13	14	10
34	23	12	12	7	18	7	26	11	5	11	6	23	21	15	13
35	22	9	10	17	16	10	20	6	15	8	10	14	23	17	13
36	12	17	11	15	15	13	19	8	15	15	10	22	16	13	8
37	18	16	10	17	13	13	19	13	10	16	13	20	8	15	9
38	16	10	8	16	15	19	13	16	18	9	15	20	4	18	12
39	7	15	18	10	16	6	24	17	7	17	14	16	16	11	16
40	21	14	9	21	13	13	12	11	23	9	16	6	12	21	8
41	16	21	14	16	11	20	11	7	23	14	16	9	17	8	4
42	12	14	10	16	10	12	23	6	10	12	15	21	18	17	14

LETTER SENT TO COLLEGE
 DEPARTMENT

Department of Physical Education
 University of North Carolina
 at Greensboro
 Greensboro, North Carolina

Dear _____

For my Master's thesis I am attempting to describe the personality traits of women water poloists by the use of a standardized personality inventory. Research is being defined in this study as one being in sight of lane swimming and qualified to participate in USA tournaments.

I am appealing to you first from selected colleges for their help in this endeavor. I am sure that your assistance was obtained from the fact that you are one of those colleges participating in the 1965 Intercollegiate Water Polo Tournament held at Duke University. The study is dealing with group traits, so it is not necessary to have the names of individuals. However, I will need your cooperation in distributing and collecting the tests.

APPENDIX B

The inventory to be administered will require about forty minutes. It does not have to be supervised, but it is asked that the test not be discussed during or after it is given.

Would you be willing to administer this test to yourself and your teammates? If so, would you please indicate the number of tests needed on the enclosed form card, so I shall send them to you. The information will be kept in strict confidence.

I appreciate your time. The results of the study will be useful in working with the highly skilled.

If you are willing to participate in this study, I would appreciate hearing from you at your earliest convenience. Thank you for your consideration.

If you are interested in the results of the study, I will be happy to send them to you.

Sincerely,

Dale Green

Marie Wiley, Advisor

LETTER SENT TO SELECTED
REPRESENTATIVES

Department of Physical Education
University of North Carolina
at Greensboro
Greensboro, North Carolina

Dear

For my Master's thesis I am attempting to describe the personality traits of women amateur golfers by the use of a standardized personality inventory. Amateur is being defined in this study as one having an eight or less handicap and qualified to participate in USGA tournaments.

I am appealing to one girl from selected colleges for their help in this endeavor. Your name and your teammates names were obtained from the official entry list of those collegiates participating in the 1968 Intercollegiate Golf Tournament held at Duke University. The study is dealing with group traits, so it is not necessary to have the names of individuals. However, I will need your cooperation in distributing and collecting the tests.

The inventory to be administered will require about forty minutes. It does not have to be supervised, but it is asked that the test not be discussed during or after it is taken.

Would you be willing to administer this test to yourself and your teammates? If so, would you please indicate the number of tests needed on the enclosed post card, and I shall send them to you. The information will be kept in closest confidence.

I appreciate your time. The results of the study will be useful in working with the highly skilled.

If you are willing to participate in this study, I would appreciate hearing from you at your earliest convenience. Thank you for your consideration.

If you are interested in the results of the study, I will be happy to send them to you.

Sincerely,

DeDe Owens

Marie Riley, Advisor

LETTER TO WOMEN PARTICIPATING IN
THE VIRGINIAS' AND CAROLINAS'
TEAM MATCHES

Physical Education Department
University of North Carolina
at Greensboro
Greensboro, North Carolina

Dear Friends,

For my Master's thesis I am attempting to describe the personality traits of women amateur golfers by the use of a standardized personality inventory. Amateur is being defined as one having an eight or less handicap and qualified to participate in USGA tournaments.

I am appealing for your help in this endeavor. The study is dealing with group traits so it is not necessary to have your name. The information will be kept in closest confidence. The inventory to be taken will require about forty minutes.

Would you be willing to participate in this study? If so, will you please indicate this by checking the enclosed post card and returning it at your earliest convenience. The test booklets and instructions for taking the test can be obtained from Marge Burns.

The men constructing the test ask that it be neither reprinted nor discussed prior to or after it has been taken.

If you are interested in the results of the study, I will be happy to send them to you upon your request.

Good luck in the matches.

Sincerely,

DeDe Owens

INSTRUCTIONS FOR COMPLETING THE EDWARDS
PERSONAL PREFERENCE SCHEDULE

Thank you for agreeing to help with my thesis study. Enclosed are the Edwards Personal Preference Schedules and answer sheets to be distributed to the students who are participating in the study. Please ask them to read the instructions very carefully which are on the front of the test booklet. The following points should be emphasized:

1. Do not write names on the answer sheet.
2. Fill in the accompanying biographical sketch.
3. Answer all questions.
4. Do not mark on the test booklet.
5. The test does not have to be proctored.

A stamped, self-addressed envelope is enclosed for return of the answer sheets and test booklets. Please return the materials by May 30.

Thank you for your help and cooperation in this study.

Sincerely,

DeDe Owens

THE RETURN POST CARD

Please check:

1. _____ I am willing to participate
in the study.
2. _____ I am not willing to participate
in the study.
3. _____ I would like a summary of the
study.

If the answer is yes, please indicate the number
of tests needed. _____

Signed: _____

DATA SHEET COMPLETED BY SOURCE

Data Sheet

Manufacturer: _____

Q-1

Q-2

Q-3

Approximate number of individuals
played in _____

Number of major sites _____

List major sites _____

APPENDIX C

DATA SHEET COMPLETED BY SUBJECTS

INFORMATION FROM THE SUBJECTS

Data Sheet

Handicap: _____ 0-2
 _____ 3-5
 _____ 6-8

Approximate number of tournaments
 played in _____

Number of major wins _____

List major wins: _____

TABLE XII
 INFORMATION FROM THE DATA CARD

Sub- ject	Handi- cap	Approx. Number Tourn.	Approx. Number Wins	Representative Wins
1 *	0-2	200+	30	North-South Amateur Eastern Amateur National Women's Seniors Curtis Cup Team New Jersey State Championship
2 *	0-2	100	10	Middle Atlantic Virginia State Championship Maryland State Championship District of Columbia Champion- ship
3 *	0-2	200+	38	Middle Atlantic Carolina's Championship Eastern Championship Harder Hall Championship North Carolina Championship (10) Low Amateur LPGA Tournaments: Tampa, Titleholders, Asheville, Raleigh, Spartanburg, Sarasota, U. S. Open
4*	0-2	80	6	South Carolina State Champion- ship Carolina's Championship Florence Junior Championship Carolina's Four Ball Champion- ship
5 *	0-2	30	4	Kentucky High School Champion ship Central Kentucky Women's Bartlett Memorial Championship
6 *	0-2	40	1	Alabama State Championship
7 *	0-2	35		
8 **	0-2	40+	2	Low Amateur U. S. Open Arkansas State Championship Medalist Women's Inter- Collegiate

TABLE XII (continued)

Sub- ject	Handi- cap	Approx. Number Tourn.	Approx. Number Wins	Representative Wins
9 **	0-2	15		
10 *	3-5	20	4	City and County Championships
11 *	3-5	200		
12 *	3-5	15		Six or eight District championships
13 *	3-5	100+	20	Virginia State Championship Middle Atlantic Championship Farmington Invitational Club Championship
14 *	3-5	75		
15 *	3-5	125	1	Carolina's Championship
16 **	3-5	60+	3	Virginia Collegiate Invita- tional Club Championship
17 **	3-5	50	20	South Carolina State Champion- ship Southern Junior Girls' Championship Carolina's Junior Championship
18 **	3-5	25		
19 **	3-5	25		
20 **	3-5	25		
21 *	3-5	40		
22 *	6-8	120	21	Tidewater Women's Championship Pennisula Women's Championship Club Championship
23 *	6-8	12		
24 *	6-8	5	5	City Amateur Championship Club Championship

TABLE XII (continued)

Subject	Handicap	Approx. Number Tourn.	Approx. Number Wins	Representative Wins
25	6-8	15	3	Club Championship
26	6-8	20	5	Club Championship
27 *	6-8	8		
28	6-8	10	1	Club Championship
29	6-8	50	10	City Championship Purdue Invitational State Invitational
30 **	6-8	6	1	Western Carolina's Championship North Carolina's State Championship Club Championship
31 *	6-8	30	4	Club Championship First Flight Women's State Amateur Championship
32 **	6-8	75+	7	Club Championship Northeastern Junior Championship Runner-up New York State Junior Championship North Eastern Tournament
33 **	6-8	7		

* College background

** Collegiate