AN ABSTRACT OF THE THESIS OF

Kerry L. Sutton for the Master of Science in Physical Education presented on May 1982

Title: A COMPARISON OF ATTITUDES TOWARD PHYSICAL ACTIVITY OF PARTICIPANTS AND NON-PARTICIPANTS IN SELECTED ACTIVITIES IN A COLLEGE INTRAMURAL PROGRAM

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Purpose: The purpose of this study was to determine the differences, if any, of attitudes toward physical activity between participants and non-participants in selected activities in a college intramural program.

Method of Research: In order to investigate the above purpose, Kenyon's Attitudes Toward Physical Activity Inventory was given to 76 college students who resided in Twin Towers Complex, at Emporia State University, Emporia, Kansas during the 1981-82 school year. Data were analyzed by computing the between groups variance of mean scores of participants and non-participants who completed the Kenyon inventory. Analysis was made according to the 6 categories identified in the instrument.

Results: There were no significant differences found between participants and non-participants on any of the mean comparisons in regard to the Kenyon inventory.

Conclusion: It was concluded that when the attitudes of participants in selected activities in a college intramural program were compared to the attitudes of non-participants in the same program, no significant difference in attitudes existed.

A COMPARISON OF ATTITUDES TOWARD PHYSICAL ACTIVITY OF PARTICIPANTS AND NON-PARTICIPANTS IN SELECTED ACTIVITIES IN A COLLEGE INTRAMURAL PROGRAM

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K.L.S.

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Chapter 1

INTRODUCTION

Theoretical Formulation

Although empirical research has been established in several areas related to intramurals (administration and organization), empirical research has not been developed regarding the attitudes toward physical activity of college students in or out of the intramural program. Questions such as the one asked by Dickinson (11) should be of concern to the professional in charge of developing a comprehensive intramural program. Dickinson stated: "Why is it that so many people go through life abhoring the idea of participation in sports and being bored by watching?"

The Problem

This study was undertaken to determine the differences, if any, of attitudes toward physical activity between participants and non-participants in college intramural programs at Emporia State University. More specifically, this study investigated the attitudes of students toward physical activity in relation to the following subdomains: 1) social experience, 2) health and

fitness, 3) pursuit of vertigo, 4) aesthetic experiences, 5) catharsis, and 6) ascetics between participants and non-participants in selected activities in a college intramural program.

Statement of the Problem

Is there a significant difference between the attitudes of participants and non-participants regarding social experience, health and fitness, pursuit of vertigo, aesthetic experiences, catharsis, and ascetics in selected activities in a college intramural program?

Hypothesis of the Study (Null Form)

There is no significant difference in attitudes regarding physical activity as social experience, health and fitness, pursuit of vertigo, aesthetic experience, catharsis, and ascetics between participants and non-participants in selected activities in a college intramural program.

Significance of the Study

Although there are volumes of literature available regarding college intramurals, limited research has been published as to the attitudes of participants and non-participants in a college intramural program. Harris (15) suggests a clarification of attitudes which certain

individuals hold in physical activity, and more specifically intramurals, could contribute to a better understanding of social reality and the development of socio-psychological theory of sport.

In essence, the significance of the study was two-fold: 1) provide empirical research for further investigation of attitudes of participants and non-participants in selected activities in a college intramural program, and 2) hopefully provide further information to professionals as to the needs and interests of college students in and out of the intramural program.

Assumptions of the Study

The following assumptions were included in the study: 1) each student responded honestly to the inventory, and 2) the men and women residents of Twin Towers dormitory were representative of all college students as Emporia State University. In addition, the validity and reliability of the instrument were applicable to this study.

Definition of Terms

Aesthetics

Aesthetics is conceived as those activities which possess beauty or certain artistic qualities in the mind of the beholder.

Ascetics

Ascetics are those activities to meet a physical challenge.

Attitudes

An attitude refers to a belief which has externally been influenced.

Catharsis

A physical activity perceived as providing a release of tension.

Intramural Activity

An organized, structured, physical activity (team sport) which is sponsored by Recreational Services at Emporia State University.

Intramural Participant

Any student, who was enrolled full time, resided at Twin Towers dormitory, and planned to or had entered a team sport (flag football, volleyball, basketball, softball)

offered by Recreational Services at Emporia State University during the 1981-82 school year.

Kenyon's Attitudes Toward Physical Activity Inventory

A scale to measure an individual's attitudes regarding physical activity for social experience, health and fitness, the pursuit of vertigo, aesthetic experience, catharsis, and ascetic experience.

Twin Towers Dormitory

A living area on campus which provides sleeping quarters for 800 full time students.

Vertigo

Those activities (football, basketball, etc.) which provide, at some risk to the participant, an element of thrill through the medium of speed, acceleration, sudden change in direction, or exposure to dangerous situations, with the participant usually remaining in control.

Limitations and Delimitations of the Study

The study was limited to the degree that only residents of Twin Towers Dormitory comprised the sample group. It was important to note that the ability to find an equal number of non-participants as to participants was of concern since most residents of Twin Towers participated in the intramural program.

The researcher was also aware of several factors which could threaten the validity of the study. These included: 1) subjects who enjoyed participating in physical activity but not in team sports, 2) varsity athletes who might be included in the random sample and may not participate in intramurals as requested by their coach, and 3) poor performance in class or some other event which could affect the subject's response to the inventory on a given day.

Chapter 2

REVIEW OF RELATED LITERATURE

The following review of literature focuses on the definition of attitudes, method of attitude scale development, scales for measuring attitudes, studies related to personality assessment of athletes and non-athletes, and empirical research of intramural programs. This chapter was designed to give the reader an overall view and general background of information as related to the study.

ATTITUDES

Attitudes, for many years, have been classified with the intangible and their measurements have been ignored. Experts have established numerous definitions for the concept of attitudes. Campbell (8) described attitudes as generalized feelings about anything and stated the characteristics of intensity of attitudes range from "strongly for" to "strongly against".

Mathews (27) believed that ". . . attitudes are considered as a mood or feeling toward a person, group, object, value, or situation, and stated that an attitude may show up in corresponding behavior to the situation."

Thurstone (42) in 1929, stated: "Attitudes are the sum total of man's inclination and feelings, prejudices, or bias, preconceived notions, ideas, fears, threats, and convictions about any topic." Kenyon (19), in 1968, described an attitude as ". . . a latent or non-observable, complex, relatively stable behavioral disposition reflecting both direction and intensity of feeling toward a particular object whether it be concrete or abstract."

Katz (18) defined an attitude as ". . . the predisposition of the individual to evaluate some symbol or object or aspect of his world in a favorable or unfavorable manner." He also identified an opinion as a verbal expression of an attitude. Attitudes are believed to perform four major functions for an individual: 1) adjustive function of satisfying utilitarian needs, 2) the cognitive function of meaning and understanding to the ambiguities of society, 3) supportive function of maintaining self-identity and enhance self-image, and 4) function as an ego-defense for the handling of internal conflicts.

The term attitude has been part of psychological literature for many years, and after deliberation of the term, Allport (4) concluded that ". . . attitude connotates a neuropsychic state of readiness for mental and physical activity". Rokeach (32) defined attitude as ". . . an acquired behavioral disposition and a set of interrelated

predispositions (state of readiness) focused on an object, or situation." "Attitudes are assumed to have behavioral components of predisposition, when activated, will lead to some form of action." (32)

In expressing attitudes, satisfaction will result by reflecting one's cherished beliefs and self-image. (18) Attitudes can serve a meaningful function in making the individual's world predictable and orderly. (14)

Most authors seemed to agree an attitude was a state of readiness, a tendency to act or react in a certain manner when confronted with certain stimuli. "The individual's attitudes are present but dormant most of the time; they become expressed in speech and other behavior only when the object of the attitude is perceived." (30) Attitudes are reinforced by a belief (cognitive component) and will often attract strong feelings (emotional component). Shaw and Wright (33) suggested attitudes elicit motives and thus give rise to overt behavior.

Methods of Attitude Scale Development

Attempts to measure attitudes have been a problem by definition and the process of measurement inadequate. Since attitudes are a latent form of behavior that cannot be observed, intrinsic validity has been relied upon in the form of a question which was logically representative of the

attitude universe. Attitude scales were developed by the following methods: 1) by specifying the domain of the psychological object in question and defining its universe of content, 2) by selecting or developing stimuli (usually verbal) to represent the domain, and 3) by formulating scales using either judgment or response methods with an appropriate sample. (20)

Thurstone Approach

The Thurstone approach requires responses to sets of statements about a subject, belief, idea, prejudice, or whatever is being assessed. The statements are presented in a questionnaire form reflecting a continuum of viewpoints, which were judged by a panel of experts as to the favorability or unfavorability of each item. Tabulations are made relative to the number of judges which placed each item as they related to the median. The Thurstone approach consists of two equivalent forms, each comprised of twenty to twenty-five statements which the subjects mark according to the statements he/she endures, and each question is rated on a one to eleven point value scale of intensity. The subjects were asked to agree or disagree with each statement, but may only receive points for those items to which the subjects agreed. (42)

Likert Approach

The Likert scale was composed of a group of statements related to a particular issue. The subject is asked to respond to each statement on a seven-point scale ranging from "very strongly agree" to "very strongly disagree". Likert asked the individual to check every statement by checking one of the seven responses accompanying each statement with the choices varying in intensity from "very strongly agree" to "very strongly disagree". Scales constructed by this method usually contain twenty to twenty-five items and the total score value for the individual is the sum of all scores for each separate item.

Scales for Measuring Attitudes

The review of literature has shown numerous scales which measure attitudes regarding physical education, athletics, and physical activity in general. Due to the limited time and space available, only those scales which were considered most pertinent are discussed.

Wear (44), in 1951, developed a 30-item Likert-type scale sampling a broad content domain concerning the values of physical education for improvement of physical health, social skills, character, and understanding of others. Subjects are asked to respond to attitude statements by checking one of five alternatives: strongly agree, agree,

undecided, disagree, and strongly disagree. High scores reflected positive attitudes toward physical education (face validity).

Adams (1), developed a scale in 1963 which measures the attitudes of college-age students in regard to physical education. The Adam's Physical Education Attitudes Scale contained twenty statements which were related to physical education. Both Likert and Thurstone type scales were utilized to establish the scales's validity and reliability ($r = .76$ to $.80$).

In 1964, Lakie (25) developed a competitive attitude scale for determining the degree to which various groups subscribe to the "win-at-any-cost" philosophy of athletics. Fifty-five item statements were selected from a variety of published sources and situations reported verbally by others. A set of items were administered to 60 college students, using the Likert format, responses were submitted to item analysis and evaluation be a four member jury, with 22 items retained as the final scale. Validity was assumed as a result of the comprehensiveness of item analysis. Shaw (33) determined the reliability of the scale as being satisfactory for the study of individual attitudes.

Richardson (31), in 1966, developed a Thurstone-type scale for assessing college-age students' attitudes toward physical fitness and exercise. Two parallel forms consisting

of nineteen statements each were constructed about physical fitness and activities with which the subjects agreed or disagreed. Jackson's (6) factor analysis identified five distinct factors relating to physical fitness and physical activity as 1) the value of physical activity and physical fitness, 2) the negative values of physical activity and physical fitness, 3) the social need for physical activity and physical fitness, 4) the value of physical activity and physical fitness for social-emotional development, and 5) the negative values of physical activity and physical fitness programs.

In 1966, Kenyon (19) constructed a model characterizing physical activity as a socio-psychological phenomenon. His work was based on the assumption that physical activity can be reduced to logical subsets. The basis for the procedure rests on the attitudes an individual holds toward physical activity.

Kenyon (20) believed there had been a failure to take into consideration the multidimensionality which a specific domain could contain. He felt a variety of attitudes could exist regarding attitudes toward a given object and that the composite scores should be split into several scores. Kenyon (35) felt the attitude scales of Wear, Richardson, and Adams were deficient in at least one of the following:

1. Sufficient attention had not been paid to the characterization of "physical activity" in its broadest sense; efforts to date have usually limited the inquiry to a somewhat restricted domain such as "physical education", "team game competition", or "sports".

2. The instruments were seldom based upon thorough application of appropriate test construction procedures so long a part of measurement literature, such as item analysis and psychological scaling techniques.

3. Where scaling procedures were used, there was a failure to account for the possible, and indeed likely, multidimensionality of the domain in question.

Kenyon (20) believed the development of a six subdomain model for measuring attitudes toward physical activity would solve the previously discussed shortcomings.

Kenyon's Attitude Toward Physical Activity Inventory

As mentioned earlier, Kenyon developed a multi-dimensional model which was designed to measure attitude toward physical activity. The inventory was divided into six dimensions which represented six functions of physical activity. Kenyon's initial attempt to formulate an accurate model of measuring the attitudes students held regarding physical activity consisted of six subdomains termed physical fitness and health, mind-body dichotomy, cooperation-competition, mental health, social intercourse, and patriotism. The intercorrelations and factor analysis of each set of data provided little evidence of a meaningful structure.

In a second attempt, physical activity was examined as a recreational experience, for health and fitness, as the

pursuit of vertigo, as an aesthetic experience, and as a competitive experience. Unfortunately, the results corresponding to two of the six subdomains--physical activity as a recreational experience and as a competitive experience--showed a sizeable amount of common factor variance. This suggested the inaccuracy of the original definitions. These two subdomains were reformulated to social experience and ascetic experience to complete the present model (Form D). (19, 20, 21)

Although the six subdomains were not all of equal logical rigor, the rationale underlying each represented the perceived instrumental value of physical activity as follows: (19)

1. Physical activity as a social experience was characterized by those activities whose primary concern was social interaction.

2. Physical activity for health and fitness was justified by its contribution toward one's health and fitness.

3. Physical activity as the pursuit of vertigo were those experiences providing, at some risk to the participant, an element of thrill through the medium of speed, acceleration, sudden change of direction, or exposure to dangerous situations, with the participant usually remaining in control.

4. Physical activity as an aesthetic experience was perceived as those activities possessing beauty or certain artistic qualities.

5. Physical activity as catharsis involved those activities which provided a release of tension precipitated by frustration through some vicarious means.

6. Physical activity as an ascetic experience facilitates those physical activities which involve long strenous and often painful training and stiff competition demanding a deferment of many gratifications.

Validity and Reliability of Kenyon's Inventory

In order for the model to have merit as a representative of the socio-psychological characteristics of physical activity, two conditions needed to be met: (a) each statement must be univocal (internally consistent), and (b) the various subdomains must be relatively independent of one another.

In developing and refining the instrument, Kenyon did correlation coefficients to establish construct validity. Separate inventories for men and women were used, using sex-appropriate statements where necessary. Response styles were evaluated and item analysis performed providing criteria for selecting the best statements for subsequent analysis. Results, according to Kenyon, revealed that correlation coefficients of about .70 were obtained. Generally acceptable validity coefficients range from .40 through .60, which supported the premise that Kenyon's revised instrument was certainly valid. (19, 20)

To determine the degree of internal consistency for the six subdomains, Hoyt's analysis of variance was utilized. The reliabilities ranged from .72 for social experience to .89 for pursuit of vertigo. Because the

reliability coefficients were conclusive of the high internal consistency and relative independence shown among the six subdomains, the conditions which Kenyon deemed necessary for testing the worth of the model were met. (19, 20)

Studies Utilizing Kenyon's Inventory

A variety of studies have used Kenyon's Inventory to measure attitudes which students held regarding physical activity. These studies included: male college students enrolled in Foundation of Physical Education course (22); elementary school children (35); male and female champion athletes (2); and delinquent and non-delinquent junior high school age girls (39). Considerable subsequent research has validated Kenyon's Inventory and proven the subdomains to be relatively univocal and independent. (3)

Studies Related to Personality Assessment of Athletes and Non-Athletes

A relatively large number of studies have been executed using group personality tests with both high school and college students. Related studies described athletes as follows: a) more outgoing and socially confident; b) more outgoing and socially aggressive, dominant, and leading; c) higher social adjustment as related by both teachers and peers; d) higher prestige, social status, and self confidence; e) stronger competitors;

f) less anxious and more emotionally stable; g) less compulsive; h) greater tolerance for pain; and i) lower feminine interest and higher masculine ones. (38)

A study by Booth (7) in 1958, compared the MMPI scores of male college athletes and non-athletes of various academic levels. Booth concluded there were some differences in personalities and interest toward participation in sports and mentioned that a high level of difference occured between freshmen and upperclassmen.

Fletcher (13) in 1971 administered the EPPS to 950 freshmen male college students along with a questionnaire about participation in high school activity classes. Results showed the need for athletes to maintain dominance, aggression, affiliation, and exhibition.

A study measuring the relationship of certain personality needs to participation, perserverence, and performance in an adult recreational softball league was performed in 1972 by Jericho (17). Using the EPPS test, Jericho discovered that participants showed a lower need for order, dominance, nurturance, and change and a higher need for deference, exhibition, autonomy, abasement and aggression than the norms for college age males.

Mendall in 1974 compared participants in college intramural sports programs and non-participants on measures of A.C.T. scores, G.P.A., and 16PF scores. The author

found differences between groups on 7 of the 16PF dimensions. Mendall found no differences between the subjects on the A.C.T. scores, university G.P.A., or high school G.P.A.. (28)

The College Intramural Program

Today's youth are confronted with many unhealthy alternatives, positive leisure time activities are a must, for the good of the student and the school and community as well. Sports involvement is a valuable means of physical and mental health. (41)

Importance of College Intramurals

Intramurals provides all students, regardless of ability, the opportunity for sports participation. This is what sports should be in our public schools today. (43)

The potential of intramurals becomes immediately evident upon inspecting a few of its purposes: (40)

1. Intramurals supplements the curricular activities of the physical education program, acting as a laboratory where students may obtain additional practice time for activities learned in class.

2. Intramurals serves as a time for further inspection and/or the introduction of unique activities.

3. Intramurals offers the opporturnity for specialization in activities of interest to the student.

4. Intramurals presents a setting for low key competition or game play.

5. Intramural programs attempt to offer "something for everyone" by introducing supplementary activities not practiced in the curricular program.

Shields (34) wrote that a wide variety of activities must be available to appeal to a broad range of interests and needs. The ultimate aim would be to provide something for all and this is certainly an ideal for us to move toward. Practically speaking, we may never quite reach that goal. However, we must base the program on human needs as much as possible.

Kidd and Pankau (23) highlight the importance of intramurals by stating: through participation in intramurals, we hopefully give every student the chance to be a winner and steer him/her in the direction of enjoying a lifetime of beneficial physical activity. Intramural programs can provide for the needs, wants, and interests of all students. (40)

Historical Background of Intramural Programs

Most experts agree that today's intramural program evolved from the English version of sport's activity and European gymnastics. It was the contention of school and college administrators that a formal system of gymnastics and physical education could contribute to sound educational principles, where as the English sports and games were

still suffering from the stigma attached to them as a result of the earlier Puritan distrust of leisure and recreation. (24)

As time progressed, the administrators leaned more and more to gymnastics for the basis of their physical education program. Unfortunately, the students preferred the English type sports, which soon caused unrest on college campuses around the country. The refusal of educational authorities to include the latter in the curriculum motivated the students to organize their own recreational sports activities outside of formal channels. By forming their own teams and engaging in competition within the confines of the institution, they made the early competitive sports largely intramural in nature. (24)

The period of student control was strongest between 1900 and 1914. Intramural athletics under this system became too unweildy and began to be a constant problem to athletic directors and coaches of varsity sports. A need for coordination was soon apparent, and it remained for the University of Michigan and Ohio State University to inaugurate the first departments of intramural athletics in 1913, each under the direction of one man who was to administer the students' demands in various sports of the day. Mitchell, the director of intramurals at the University of Michigan, was considered by many to be the father of

intramurals. The other major contributor was Wilice, then director of athletics at Ohio State University. (24)

As the demands for sports participation increased, colleges and universities adapted their physical education program to the students' needs. Activities included within the intramural program fluctuated depending on the trends of the time. It was during the Vietnam War that many of the individualized programs began to develop. Activities such as frisbee and tennis became popular for students during this time. As students enter the 1980's, their needs will change and so will the activities in which they wish to participate. (10)

Current Trends in College Intramural Participation

Intramural sports activities program in our secondary schools and colleges have had a phenomenal growth within the past decade. Among other factors the emphasis on leisure time activities and the release from present day academic pressures have all contributed greatly to this increased interest. (5)

At Oklahoma State University the intramural program has seemed to follow the nationwide trend, with 300-400% increase in participation in most activities. Nearly 68% of the men and 48% of the women at Iowa State University participated in the intramural program in 1977. (5)

Although the available information is not complete, the intramural program sponsored by Recreational Services at Emporia State University seems to be enjoying the same type of increase in student participation as many other programs around the country. A 52% increase in team sports participation occured in fall intramural programs during the 1980-81 school year. For the partial data of this current year (1981-82), student participation in intramural programs has increased by 26% during the fall intramural season. Unfortunately, earlier records were incomplete, thus creating problems for overall tabulation of the entire intramural program participation. Please refer to Table 1 for details on student participation in Emporia State's intramural program.

Table 1

Emporia State University Intramural Program
Student Participants

Year	Activity	Male	Female	CoEd	Total #
1979-80	Flag Football	388	252	0	640
1979-80	Volleyball	143	390	0	533
1979-80	Basketball	396	204	0	600
1979-80	Softball	No Records Available			----
					1773
1980-81	Flag Football	555	270	0	825
1980-81	Volleyball	350	481	146	977
1980-81	Basketball	584	312	0	896
1980-81	Softball	575	475	260	1310
					4028
1981-82	Flag Football	600	420	0	1019
1981-82	Volleyball	373	603	274	1250
1981-82	Basketball	No Records Available			----
1981-82	Softball	To Date			----

Summary

The review of literature indicated a variety of definitions for "attitude" which experts believe reflect one's decision making ability regarding a given topic. It is this phenomenon which experts try to investigate and measure through tests, instrumentation, or inventories that provide empirical research for today's physical educator.

Although a variety of studies have been established regarding the attitudes of athletes, non-athletes, and college

students in general, a void still exists in the research of attitudes of why persons participate in college intramurals. It was this void which this study tried to fill, or at least provided some impetus toward its development.

Chapter 3

METHODS AND PROCEDURES

Population and Sampling

The investigation took place during the 1982 spring semester with subjects at Fmporia State University in Twin Towers Residence Hall. Twin Towers was composed of 667 college students coming from a wide range of social, economic, and cultural backgrounds. Although a large percentage of residents were freshman, sophomores, and juniors, a number of seniors and graduate students were included on the Twin Towers roster. The researcher's accessibility to available resources and a diversified group of subjects made Twin Towers an attractive location for the investigation.

In order to obtain a sample population representative of college students residing at Twin Towers, the following information was needed: 1) a computerized roster containing name and room number of each resident, and 2) for each resident a three digit identification number beginning with 001 and ending with 667. The random procedure included: 1) segmentation of the Table of Random Numbers by columns of three and beginning with row one; 2) a star placed by resident's identification number which corresponded with

number selected on table; 3) continuation of process until 200 identification numbers had been randomly selected; 4) a letter (Appendix A) was sent out to the 200 subjects which requested their participation in the study by completing an inventory about 15 minutes in length. The letter included scheduled dates, times, and location in which inventory was given; and 5) subjects were asked to circle preferred date and time to complete inventory and return to a designated box located at the Reception Center in Twin Towers.

Materials and Instrumentation

The Kenyon Attitudes Toward Physical Activity Inventory (ATPA) was used to measure the attitudes toward physical activity of participants and non-participants in a college intramural program. The determination to use the inventory was based on the following: 1) one of the most recent instruments developed to measure attitudes toward physical activity (1968), 2) simplicity of testing and scoring, 3) six subdomains measured instead of one, and 4) respectability of instrument for validity (.70) and reliability (r_{tt}= .72-.89).

The Kenyon ATPA Inventory, Form D, consisted of two different forms, one which was administered to men and

the other to women. Sex appropriate questions were the only difference between test forms.

Design of the Study

The purpose of the study was to determine the difference of attitudes toward physical activity between participants and non-participants in selected activities in a college intramural program at Emporia State University. More specifically, this study was designed to determine the differences of attitudes toward physical activity in relation to the following subdomains: 1) social experience, 2) health and fitness, 3) pursuit of vertigo, 4) aesthetic experiences, 5) catharsis, and 6) ascetics between participants and non-participants in selected activities in a college intramural program. Analysis of variance was used to analyze the differences between the mean values held by participants and non-participants in relation (or reference) to the six subdomains measured by Kenyon's ATPA Inventory.

Data Collection

Of the 200 sampling population selected for the study, only 76 subjects volunteered to complete the inventory. It had been planned to have 100 subjects. The subjects also requested to remain anonymous which made obtaining an accurate list of subjects to contact a second time impossible.

Between January 18 and 19, 1982, the Kenyon ATPA Inventory was administered several times to 76 student volunteers residing at Twin Towers. Students were asked to take the inventory in the Residence Hall Association Library located across from the main lobby in Twin Towers.

Students were provided with pencil, instructional sheet, appropriate test form, and answer sheet. Subjects were asked to write participant or non-participant at the top right-hand corner of the answer sheet depending on whether the subject already had participated, planned to participate, or would not participate in an intramural activity during the 1981-82 school year. The inventory took 15 minutes to complete and 5 minutes to score. Each answer was scored from one to seven and given a color corresponding to the subdomain to which the answer was most pertinent. Total scores for each subdomain were written at the bottom left hand corner of the answer sheet. The larger the number, the more supportive was the subject's response to that subdomain.

Data Analysis

Between groups variance was used to compute any significant difference in the mean values of participants in regard to the Kenyon inventory. Analysis was made according to the six categories identified in the instrument.

Chapter 4

ANALYSIS OF DATA

On January 18 and 19, 1982, 76 students volunteered to participate in the Kenyon ATPA Inventory. Of those 76 students, 46 students signified that they participated or planned to participate (participant) in an intramural activity (team sport) at Emporia State University during the 1981-82 school year. The other 30 students signified that they preferred not to participate (non-participant) in an intramural activity (team sport) during the same time period.

No significant difference existed between the two groups as shown by the data collected from the Kenyon inventory, which was designed to measure the attitudes of students in regard to physical activity. By way of simple computation of between groups variance, it was disclosed that both groups responded very similarly to questions throughout the inventory. The results of the inventory were listed on Table 2.

Because of the similarities in the total mean scores and results of the between groups variance (F-ratios), further statistical investigations were discontinued as recommended by several individuals involved with the development of the thesis research. There were no significant

differences between any of the mean comparisons that were made. Table 2 identifies the sum of scores, the obtained means, and the sample variance found.

Table 2

A Comparison of Means on the
Kenyon (ATPA) Inventory

Non-Participants - 30 Subjects

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	123.8	123.2	113.8	126.8	116.1	108.4
Obtained Means	4.13	4.1	3.79	4.2	3.87	3.6

Participants - 46 Subjects

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	213.9	193.7	180.1	184.8	187.1	167.2
Obtained Means	4.65	4.2	3.92	4.02	4.1	3.63

Between Groups Variance Data

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	8.78	8.3	7.71	8.22	8.0	7.23
Obtained Means	4.39	4.15	3.86	4.11	4.0	3.62
Sample Variance	.07	.002	.005	.008	.01	.015

Chapter 5

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

The purpose of the study was to compare the attitudes of participants and non-participants in selected activities in a college intramural program at Emporia State University. The comparison of attitudes between the two groups occured during the Spring Semester of the 1981-82 school year.

Form D of the Kenyon Attitudes Toward Physical Activity Inventory was administered to seventy-six college students who were full-time students and resided at Twin Towers Residence Hall. The seventy-six college students had the option of completing the inventory on several different occasions; January 18, 1982 and January 19, 1982. Subjects were asked only to complete the inventory which was 15 minutes in length. The results obtained from the Kenyon (ATPA) Inventory were computed for significant difference of the means for each subdomain between the two groups. No significant difference was observed between participants and non-participants on the inventory.

Conclusion

Within the limits of this study, the following general conclusion can be made:

When the attitudes of participants in selected activities in a college intramural program were compared to the attitudes of non-participants in the same program, there were no significant difference in attitudes of social experience, health and fitness, pursuit of vertigo, aesthetics, catharsis, and ascetics between the two groups which supported the null hypothesis.

Recommendations

As the review of literature has indicated, intramural programs have grown both in student participation and number of activities provided, however, there are those students who choose not to participate. It was the intent of the investigator, through a comparison of attitudes about physical activity in college intramurals to develop empirical data which might suggest reasons why students decided not to participate in intramural activities. Unfortunately, little light has been shed on the subject, which lead the researcher to believe that further investigation might be made.

As indicated earlier, only students from Twin Towers Residence Hall were used for the investigation.

Using a sample population which involved both students living on and off campus may eliminate the difficulty of finding non-participants which was a problem for the researcher in the study. Increasing the number of subjects may reveal some different results than the ones found here and also provide for a more statistically valid study.

The investigator briefly looked at the data collected on the Kenyon Inventory for a comparison of male scores to female scores. Although no significant difference was observed, further investigation in this area might provide some different results. Please refer to Appendix C for comparison of male scores to female scores on the inventory.

Another interesting study might involve a comparison of attitudes between freshmen and upperclassmen in a college intramural program. A study of this nature would be beneficial to individuals in charge of developing and maintaining a comprehensive program. The empirical data might be used to entice freshmen to become involved in an intramural program along with maintaining the interest of upperclassmen in current intramural programs. As the review of literature suggested, no matter what the level of significance a study may have, the data collected would assist the professional who is interested in the development of an intramural program.

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APPENDIX A

Cover Letter to Selected Students

Dear Twin Towers Resident:

During the spring semester, a theses project will be conducted by one of the Twin Towers staff. This project requires the participation of full-time college students who reside at Twin Towers. Students will be asked only to complete an inventory which is 15 minutes in length, all necessary materials will be provided. This inventory will be conducted in the RHA office, located across from the main lobby.

Listed below are the dates and times this inventory will be administered. Please check the date and time which fits your schedule and return to the Reception Center before Friday, the 16th of January. Your participation will be greatly appreciated!

Please Circle One

Monday/January 18	Tuesday, January 19th
10:30 AM	10:30 AM
11:00 AM	11:00 AM
11:30 AM	11:30 AM
3:30 PM	3:30 PM
4:00 PM	4:00 PM
8:00 PM	8:00 PM
8:30 PM	8:30 PM
9:00 PM	9:00 PM

* If these dates or times are not compatible with your schedule, please check this box. We will contact you soon.

APPENDIX B

The Instrument

Kenyon's Attitudes Toward Physical Activity

ANSWER SHEET

Kenyon's ATPA Inventory

Part 1.

1. Check the following (x): _____ Male _____ Female
2. Circle your classification:
   1. Freshman - (completed less than 30 semester hours)
   2. Sophomore- (completed at least 30 semester hours)
   3. Junior - (completed at least 60 semester hours)
   4. Senior - (completed at least 90 semester hours)
3. Circle your favorite intramural activity: (CIRCLE ONLY ONE ANSWER!
   (Badminton) (Golf) (Racquetball) (Squash) (Track)
   (Basketball) (Handball) (Soccer) (Table Tennis)
   (Volleyball) (Football) (Horseshoes) (Softball)
   (Tennis) (Wrestling)
4. Express your agreement or disagreement by writing the appropriate symbol in the appropriate space on this answer sheet.

1. _____	2. _____	3. _____	4. _____
5. _____	6. _____	7. _____	8. _____
9. _____	10. _____	11. _____	12. _____
13. _____	14. _____	15. _____	16. _____
17. _____	18. _____	19. _____	20. _____
21. _____	22. _____	23. _____	24. _____
25. _____	26. _____	27. _____	28. _____
29. _____	30. _____	31. _____	32. _____
33. _____	34. _____	35. _____	36. _____
37. _____	38. _____	39. _____	40. _____
41. _____	42. _____	43. _____	44. _____
45. _____	46. _____	47. _____	48. _____
49. _____	50. _____	51. _____	52. _____
53. _____	54. _____	55. _____	56. _____
57. _____	58. _____	59. _____	

INSTRUCTION SHEET

KENYON'S ATTITUDES TOWARD PHYSICAL ACTIVITY INVENTORY

Introduction

The following is part of a research project designed to measure college students attitudes toward physical activity and intramurals. We are asking you to express what you think or feel about each statement. The best answer is your personal opinion. Many different and opposing points of view are presented; you may find yourself agreeing strongly with some of the statements and disagreeing just as strongly with others. Please read the following instruction carefully.

Instructions

1. Express your opinion towards each statement by writing in the appropriate symbol on the answer sheet.

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

2. You should rarely need to use U (undecided).

3. Work independently of others.

4. Do not spend too much time on any one statement; try to respond, then go on to the next statement.

5. Respond to ALL statements.

6. Respond to the statements IN THE ORDER GIVEN.

7. The significance of this research depends upon the degree to which you express your own opinion.

ATTITUDE TOWARD PHYSICAL ACTIVITY

FORM DW (Women)

1. I would prefer quiet activities like swimming or golf, rather than such activities as water skiing or sail boat racing.

2. I would gladly put up with the necessary hard training for the chance to try out for the U.S. Women's Olympic Team.

3. The most important value of physical activity is the beauty found in skilled movement.

4. Physical education programs should stress vigorous exercise since it contributes most to physical fitness.

5. The years of strenuous daily training necessary to prepare for today's international competition is asking a lot of today's young women.

6. The need for much higher levels of physical fitness has been established beyond all doubt.

7. Among the best physical activities are those which represent a personal challenge, such as skiing, mountain climbing, or heavy weather sailing.

8. Among the most desirable forms of physical activity are those which present the beauty of human movement such as modern dance and water ballet.

9. I would get by far the most satisfaction from games requiring long and careful preparation and involving stiff competition against a strong opposition.

10. Of all physical activities, those whose purpose is primarily to develop physical fitness, would not be my first choice.

11. The best way to become more socially desirable is to participate in group physical activities.

12. Almost the only satisfactory way to relieve severe emotional strain is through some form of physical activity.

13. Frequent participation in dangerous sports and physical activities are alright for other people but ordinarily they are not for me.

14. Physical education programs should place much more emphasis upon the beauty found in human motion.

15. If given a choice, I sometimes would choose sternuous rather than light physical activity.

16. There are better ways of relieving the pressures of today's living than having to engage in or watch physical activity.

17. I like to engage in socially oriented physical activities.

18. A part of our daily lives must be committed to vigorous exercise.

19. I am not particularly interested in those physical activities whose sole purpose is to depict human motion as something beautiful.

20. Colleges should sponsor many more physical activities of a social nature.

21. For a healthy mind in a healthy body the only place to begin is through participation in sports and physical activities every day.

22. The least desirable physical activities are those providing a sense of danger and risk of injury such as skiing on steep slopes, mountain climbing, or parachute jumping.

23. Being physically fit is not the most important goal in my life.

24. A sport is sometimes spoiled if allowed to become too highly organized and keenly competitive.

25. I enjoy sports mostly because they give me a chance to meet new people.

26. Practically the only way to relive frustrations and pent-up emotions is through some form of physical activity.

27. The time spent doing daily calisthenics could probably be used more profitably in other ways.

28. Given a choice, I would prefer motor boat racing or running rapids in a canoe rather than one of the quieter forms of boating.

29. Of all the kinds of physical activities, I don't particularly care for those requiring a lot of socializing.

30. One of the things I like most in sports is the great variety of ways human movement can be shown to be beautiful.

31. Most intellectual activities are often just as refreshing as physical activities.

32. Strength and physical stamina are the most important prerequisites to a full life.

33. Physical activities that are purely for social purposes, like college dances, are sometimes a waste of time.

34. The self-denial and sacrifice needed for success in today's international competition may soon become too much to ask of a thirteen or fourteen year old girl.

35. I am given unlimited pleasure when I see the form and beauty of human motion.

36. I believe calisthenics are among the less desirable forms of physical activity.

37. Watching athletes becoming completely absorbed in their sport nearly always provides me with a welcome escape from the many demands of present-day life.

38. If I had to choose between "still-water" canoeing and "rapids" canoeing, "still-water" canoeing would usually be my choice.

39. There are better ways of getting to know people than through games and sports.

40. People should spend twenty to thirty minutes a day doing vigorous calisthenics.

41. There is sometimes an over-emphasis upon those physical activities that attempt to portray human movement as an art form.

42. Physical activities having an element of daring or requiring one to take chances are desirable.

43. Since competition is a fundamental characteristic of American society, highly competitive athletics and games should be encouraged for all.

44. A happy life does not require regular participation in physical activity.

45. The best form of physical activity is when the body is used as an instrument of expression.

46. Sports are fun to watch and to engage in, only if they are not taken too seriously, nor demand too much time and energy.

47. Calisthenics taken regularly are among the best forms of exercise.

48. I could spend many hours watching the graceful and well coordinated movements of the figure skater or modern dancer.

49. The best things about games and sports is that they give people more confidence in social situations.

50. Among the best forms of physical activity are those providing thrills such as sailing in heavy weather or canoeing on river rapids.

51. Regular physical activity is the major prerequisite to a satisfying life.

52. In this country there is sometimes too much emphasis on striving to be successful in sports.

53. I would enjoy engaging in those games and sports that require a defiance of danger.

54. Most people could live happy lives without depending upon frequent watching or participating in physical games and exercise.

ATTITUDE TOWARD PHYSICAL ACTIVITY

FORM DM (Men)

1. I would gladly put in the necessary years of daily hard training for the chance to try out for the U.S. Olympic Team.

2. I would prefer quiet activities like swimming or tossing a ball around rather than such activities as automobile or speedboat racing.

3. Among desirable forms of physical activity are those that show the beauty and form of human movement, such as modern dance and water ballet.

4. I prefer those sports which require very hard training and involve intense competition such as interscholastic and intercollegiate athletics.

5. A happy life does not require regular participation in physical activity.

6. The risk of injury would be well worth it when you consider the thrills that come from engaging in such activities as mountain climbing and bobsledding.

7. It is important that everyone belong to at least one group that plays games together.

8. Of all physical activities, those whose purpose is primarily to develop physical fitness, would not be my first choice.

9. Among the best physical activities are those which represent a personal challenge, such as skiing, mountain climbing, or heavy weather sailing.

10. I would get by far the most satisfaction from games requiring long and careful preparation and involving stiff competition against a strong opposition.

11. The degree of beauty and grace of movement found in sports is sometimes less than claimed.

12. Almost the only satisfactory way to relieve severe emotional strain is through some form of physical activity.

13. I would usually choose sternuous physical activity over light physical activity, if given the choice.

14. Physical education programs should place a little more emphasis upon the beauty found in human motion.

15. There are better ways of relieving the pressures of today's living than having to engage in or watch physical activity.

16. Frequent participation in dangerous sports and physical activities are alright for other people but ordinarily they are not for me.

17. I like to engage in socially oriented physical activity.

18. A large part of our daily lives must be committed to vigorous exercise.

19. I am not in the least interested in those physical activities whose sole purpose it to depict human motion as something beautiful.

20. Colleges should sponsor many more physical activities of a social nature.

21. Being strong and highly fit is not the most important thing in my life.

22. The least desirable physical activities are those providing a sense of danger and risk of injury such as skiing on steep slopes, mountain climbing, or parachute jumping.

23. For a healthy mind in a healthy body the only place to begin is through participation in sports and physical activities every day.

24. A sport is sometimes spoiled if allowed to become too highly organized and keenly competitive.

25. The time spent doing daily calisthenics could probably be used more profitably in other ways.

26. I enjoy sports mostly because they give me a chance to meet new people.

27. Practically the only way to relieve frustrations and pent-up emotions is through some form of physical activity.

28. Given a choice, I would prefer motor boat racing or running rapids in a canoe rather than one of the quieter forms of boating.

29. Strength and physical stamina are the most important prerequisites to a full life.

30. Of all the kinds of physical activities, I dislike the most those requiring a lot of socializing.

31. The most enjoyable forms of physical activity are games and sports engaged in on the spur of the moment, rather than those requiring long periods of training.

32. One of the things I like most in sports is the great variety of ways human movement can be shown to be beautiful.

33. Most intellectual activities are often just as refreshing as physical activities.

34. Physical activities that are purely for social purposes, like college dances, are sometimes a waste of time.

35. I am given great pleasure when I see the form and beauty of human motion.

36. I believe calisthenics are among the less desirable forms of physical activity.

37. The self-denial and sacrifice needed for success in today's international competition may soon become too much to ask of a thirteen or fourteen year old.

38. People should spend twenty to thirty minutes a day doing vigorous calisthenics.

39. Too much attention is paid to those physical activities that try to portray human movement as an art form.

40. Sports are fun to watch and to engage in, only if they are not taken too seriously, nor demand too much time and energy.

41. Of all physical activities, my first choice would be those whose purpose is primarily to develop and maintain physical fitness.

42. If I had to choose between "still-water" canoeing and "rapids" canoeing, "still-water" canoeing would be the better alternative.

43. Watching athletes becoming completely absorbed in their sport nearly always provides me with a welcome escape from the many demands of present-day life.

44. Participating in games and sports can sometimes spoil good friendships.

45. The idea that every human movement is beautiful is absurd.

46. Physical activities having a strong element of daring or requiring one to take chances are highly desirable.

47. I could easily spend an hour watching the graceful and well coordinated movements of a figure skater or modern dancer.

48. There are better ways of getting to know people than through games and sports.

49. The fun is sometimes taken out of sports and games when they become too highly organized, overly competitive, and too demanding of the participants.

50. Among the best forms of physical activity are those which use the body as an instrument of expression.

51. Since competition is fundamental to American society, sports and athletics need to be much more demanding and competitive than at present.

52. The best thing about games and sports is that they give people more confidence in social situations.

53. One of the best forms of physical activity is that which provides a thrilling sense of danger such as sailing in heavy weather or canoeing on river rapids.

54. Regular physical activity is the major prerequisite to a satisfying life.

55. Vigorous daily exercises are absolutely necessary to maintain one's general health.

56. One of the most desirable forms of physical activity is social dancing.

57. In this country there is sometimes too much emphasis on striving to be successful in sports.

58. I would enjoy engaging in those games and sports requiring, to a large extent, the defiance of danger.

59. Most people could live happy lives without depending upon frequent watching or participating in physical games and exercise.

APPENDIX C

A Comparison of Mean Scores for Males and Females on Inventory

A Comparison of Mean Scores
for Males and Females
on Inventory

Non-Participants - Male Subjects 10

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	42.3	40.6	35.4	39.3	39.2	34.8
Obtained Means	4.23	4.1	3.54	3.99	3.92	3.48
Sample Variance	.07	.03	.19	.18	.04	.1

Non-Participants - Female Subjects 20

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	81.5	82.6	78.4	89.9	76.9	73.6
Obtained Means	4.1	4.13	3.93	4.35	3.85	3.68
Sample Variance	.07	.03	.19	.18	.04	.1

Participants - Male Subjects 25

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	112.4	100.9	103.8	96.6	100.8	86.3
Obtained Means	4.5	4.04	4.15	3.86	4.03	4.83
Sample Variance	.17	.19	.26	.17	.04	.2

Participants - Female Subjects 21

Subdomains	Soc.	H-F.	Ver.	Aes.	Cat.	Asc.
Sum of Scores	101.5	92.8	76.3	88.2	86.2	80.9
Obtained Means	4.5	4.04	3.86	4.03	4.03	3.45
Sample Variance	.17	.19	.26	.17	.04	.2