THE EFFECTS OF PARTICIPATION IN HIGH-RISK ROPES COURSE ACTIVITIES ON INDIVIDUAL SELF-CONCEPT

By

CAROL ANN WASHBURN

Bachelor of Science
Oklahoma State University
Stillwater, Oklahoma
1974

Master of Arts
Oklahoma State University
Stillwater, Oklahoma
1979

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Thesis Adviser

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Risk could be considered the key to change. Buscaglia (4) offers the greatest hazard in life is to risk nothing. He further commented that without risk one may avoid suffering and sorrow, but one simply cannot learn, feel, change, grow, live, or love.

Perhaps only the person who dares to risk can truly be free to pursue their finest human potential. The rhythm of one's daily life involves opportunities for risks and challenges which offer individuals the chance to exercise their inherent attributes of free will and choice. Risk could be considered the essence of living, for really to live is to take risks.

"Participation in recreational activities that involve an element of risk has grown rapidly within the last 10 years" (37, p. 118). Pioneers in risk recreation continue to surge forward offering extended choices for people to experience risk in a recreational setting. Since risk involvement is influenced by an evaluation of possible gains, recreation/leisure professionals must determine if there are enough potential benefits to assume the hazards of risk recreation. Intelligent risk assessment involves defining goals and determining if the

goals are worth the potential danger. Thus, further investigation of the values obtained from participation in risk recreation presents a challenge and responsibility for the recreation/leisure professionals of today. Such values are often expressed in terms of goals or desired outcomes. Meir (1975, p. 105) offered, "Development of a sound self-concept, including self-reliance and self-confidence, might be a reasonable goal or outcome resulting from participation in risk recreation."

Chubb and Chubb (7) stated:

> Over 500 schools, quasi-public organizations and private groups in the United States conconduct experiential education or risk recreation programs in wilderness areas for individuals who wish to develop their self-awareness, confidence, and concern for others (p. 301).

Outdoor adventure programs such as Outward Bound and Project Adventure have grown not only in number but also in concept during the past decade. Many of the original outdoor adventure programs were originally developed to be used with juvenile delinquents and special populations as a therapeutic tool for building confidence, self-awareness, and concern for others. Since that time, additional outdoor programs have been developed and are being used by a wide array of groups with various objectives in mind; one of the main objectives being enhancement of self-concept.

During recent years, increased numbers of recreation and leisure professionals have supported utilizing risk

recreation experiences, but much of the literature indicates that documented evidence supporting the value of risk recreation is noticeably lacking. Testimonials concerning the impact of risk recreation on individual self-concept are readily forthcoming, yet lack of documented statistics reflect poorly on our profession. It appears that professionals at the university level need to offer leadership for extended research in this area. Chubb and Chubb (4, p. 10) stated, "Unlike many sciences, the study of recreation is quite new and is based on comparatively little empirical data." This means that it is a rapidly changing field and individuals must be prepared to modify beliefs and methods of solving problems in the light of new information and ideas as they emerge.

When one looks at risk recreation as related to individual self-concept, it is important to lay a basic foundation of knowledge concerning these two ideas.

Risk Recreation

Miles (26, p. 108) stated, "When the terms risk and recreation are combined, we most likely visualize any number of leisure activities which provide exposure to danger." Synonymous terms commonly used today might also include high adventure activities, thrill sports, survival courses, and challenge programs, to name only a few. A variety of activities are commonly associated with

these terms, such as mountaineering, wilderness camping, white-water boating, high-risk ropes course, and many others. In most cases, these activities take place in an outdoor setting, whether associated with land, water, air, snow, or ice.

Risk recreation activities involve elements of uncertainty. Facing uncertainty, a person confronts a natural anxiety about the unknown. Will he or she have the nerve? Is one's skill and knowledge sufficient to meet the situation? Is the risk worth taking?

After the challenge is met and the risk has passed, a physical and spiritual satisfaction appears to be the reward--an intense emotion that is highly valued by many involved in risk recreation. "Away from their typical routine and in a risk situation, individuals' emotions surge up and are given a release" (26, p. 107).

People state that they feel more unified and whole at such moments, more at the creating center of their activities and perceptions. These are indeed positive feelings and are a reminder that people can grow and go beyond their perceived limits. Maslow (23) described such experiences as "peak experiences." Perhaps risk recreation is one way in which "peak experiences" can be offered to individuals.

It appears people are motivated to participate in risk recreation for a variety of reasons, as is true of any human activity. Individuals are given the opportunity

to venture forth into the unknown, to exercise choice, to challenge both mind and body, to take the responsibility of accepting the consequences.

Self-Concept

Terms such as self-esteem, selfhood, self understanding, and image of self emerge as synonyms for self-concept. For the purpose of this study, the term self-concept will be utilized.

Calhoun and Morse (5) credit Rainey with coining the term "self-concept" in 1943. They defined the term as the description one employs to identify his nature and uses to compare oneself to others. The authors explained that the positive development of self-concept is directly related to the amount of success one encounters during the early development period. Summing up various definitions, they concluded that the self-concept is viewed as the way an individual perceived himself and his behavior, which is strongly influenced by the ways others perceive him.

Wylie (46) referred to self-concept as an arrangement of self references, or how one looks at one's self. For the most part, Wylie purported that to be a conscious process reflecting certain cognitions about one's self.

Alderman (2, p. 143) summed up self-concept by stating, ". . . if you think you are good, and you perceive others as thinking you are good, then you will be good."

This author participated in Camp Redlands Ropes Course during the summer of 1981, and has had the opportunity to view several individuals completing the course. It was noted by this author (on an observational basis) that several participants responded to physical and emotional risk in such a way that seemed to enhance self-concept. It was the indication of such improvements that motivated this investigation.

Statement of the Problem

The purpose of this study was to determine the effects of participation in high-risk ropes course activities on individual self-concept. The Tennessee Self-Concept Scale was used to measure self-concept.

Hypotheses

1. There will be no significant difference between pretest, posttest, and follow-up test self-concept scores of the total group after participating in high risk ropes course experience.

2. There will be no significant difference between pretest, posttest, and follow-up test self-concept scores of females after participating in high risk ropes course activity.

3. There will be no significant difference between pretest, posttest, and follow-up test self-concept scores

of males after participating in high risk ropes course activity.

Significance of the Study

Up to this point there has been no documented research as to the effect a one-day, high risk ropes course experience has on an individual's self-concept. A pilot study was conducted by Beverly Vaughn as a project requirement of HPELS 5013 at Oklahoma State University. This pilot study utilized only seven subjects and recommended further studies with more subjects. This study also involved only pre and posttest scores for individual self-concept. Compton, Witt, and Sanchez (9, p. 17) offered, "In an era that demands accountability, skepticism will have to be met with better evidence than testimonials." It is the author's opinion that valid and reliable research must be offered to encourage bridging efforts between recreation/leisure professionals and other professions.

Definitions of Terms

The term "total population" will refer to the entire group participating in the high risk ropes course utilized in the results of this study. Each member of the "total population" will be given a pretest, posttest, and follow-up test utilizing the Tennessee Self-Concept Scale.

Self-concept has been defined differently by various authors, but for the purpose of this study it will be defined as "a composite of thoughts and feelings which constitute a person's awareness of his individual existence, his conception of whom and what he is" (15, p. 9). These perceptions, as described by Fitts (11) in the Tennessee Self Concept Manual, fall into the following categories:

1. The Self Criticism Score (SC): High scores would indicate normal self criticism and openness. Low scors would indicate defensiveness.

2. Total P Score: This is the most important single score and it reflects overall self-esteem.

3. Identity: How he sees himself. "What I am" items.

4. Self Satisfaction: How the individual feels about the self he perceives.

5. Behavior: How he acts, "This is what I do" items.

6. Physical Self: His view of his body, health, and sexuality.

7. Moral-Ethical Self: His relationship to God or good and bad.

8. Personal Self: Reflects the person's sense of personal worth or adequacy as a person.

9. Family Self: His worth as a family member.

10. Social Self: Self in relation to a set of general others. The others are not as close to the individual as the Family.

11. Variability: A measure of inconsistency from one area of self perception to another. The degree of consistency with which the person looks at himself.

12. Distribution. The distribution of answers; the amount of certainty with which one describes one's self.

Rope Course is a series of rope ladders, rope and cable bridges, cargo nets, tree and log balance beams, cargo nets tree and log balance beams, suspended platforms, and zip wire cables. The course sequentially builds from the lesser obstacles to the more complex.

Risk recreation could be considered recreation/ leisure pursuits that provide opportunities for challenge and risk-taking.

Limitations

. Constraints were imposed on the study due to researchers' limited time, money, and personal resources.

. The study was limited by the total population, 19 subjects.

. The study was limited by the lack of a control group.

. There was no random sampling in selection of the population utilized in the study.

. The treatment program was limited to a one day ropes course experience.

Delimitations

. Subjects of the study were delimited to students at Oklahoma State University who were clients involved in counseling at the University Counseling Center.

Assumptions

. Subjects had accurately completed the Tennessee Self Concept Scale

. The scores on the Tennessee Self-Concept Scale reflected candid self evaluation of each subject.

. That any changes in self-concept were a result of participation in the high-risk ropes course experience.

. The Tennessee Self-Concept Scale is a valid and reliable measure of self-concept.

CHAPTER II

REVIEW OF RELATED LITERATURE

Published research concerning the effect of participation in a one-day high risk ropes course experience is not currently available, but there were published and unpublished studies bearing on this general topic. Since this study involved the effects of a high-risk ropes course on individual self-concept, the review of literature was conducted by an investigation of the following areas: self-concept, values of risk recreation, and the Tennessee Self-Concept Scale utilized in other studies.

Self-Concept

Satir (36) commented on self-concept by offering the crucial factor in what happens both inside people and between people is the picture of individual worth that each person carried around with him. She stated, "Appreciating his own worth, he is ready to see and respect the worth of others" (p. 27). Satir indicated that self-concept is learned, and outside forces tend to reinforce the individual's feelings of worth or worthlessness that a person learned at home. Throughout her writings she stressed the importance of personal self-esteem.

Martens (24) offered that self-concept is not a single concept but a system or attitude about oneself. It embraces the cognitive, affective, and behavioral domains. The author also stated that there is a lack of sound research dealing with physical activity and its relationship to psychological soundness.

Curry (10, p. 117), in reviewing self-concept, spoke of the self-concept as a "mirror of other people." What a person believes about oneself is partly a function of that individual's interpretation of how others see the person; one infers this from their behavior toward oneself. This means the concept of self depends in part on what one thinks others think of oneself.

Jourard (16), throughout his writings, states alienation from one's real self not only arrests personal growth but tends to make a farce out of one's relationships with people. He encourages people to know their real selves, thus placing their real self in a position to grow. He believes a positive image of self occurs through the consequences of being and continuing to acknowledge one's real self.

Rogers (33) stated that:

> . . . the self concept of self-structure may be thought of as an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities; the precept and concepts of the self in relation to others and to the environment; the value qualities which are perceived as associated with

> experiences and objects; and goals and ideals which are perceived as having positive or negative valence (p. 136).

Rogers (34) noted that an individual cannot profitably deny his subjective life, any more than a person can deny the objective description of that life. Throughout his writings he encourages individuals to ask, "Who am I, really?" "How can I get in touch with this real self, underlying all my surface behavior?" "How can I become myself?"

Harris (13) pointed out that self-concept has been defined in a multitude of ways, but there are two basic assumptions which underlie all current theories of self: (1) self-concept is a product of social interaction, and it is assumed that alterations and developments of self are direct functions of the response of others; and (2) self-concept has a predictable effect on behavior in general. Specifically, she stated: "In essence, self concept is the core around which all personality characteristics are organized--what one thinks of one's self is the prime determinant of one's behavior" (p. 169).

Values of Risk Recreation

In 1967, Clifford and Clifford (8) studied 36 boys between the ages of 16 and 21 to determine whether or not survival training has a positive effect on their individual self-concepts. Upon entering the survival training and at the conclusion of the one month program, the

students were given a battery of tests, including the self-rating scale, the self-description scale, the ideal description scale, and the word meaning test. In addition, counselors rated the students at the end of the program, but not at the outset. The researchers found that self-concept improved for almost all students; however, the improvement was statistically significant at the .05 level only for those students with poorer self-concepts at the start. Counselors' ratings and the self administered scale ratings were found to be similar.

Adams (1) noted that the field of mental rehabilitation has applied outdoor survival training in aiding emotionally disturbed patients. A study was done with 22 adolescent patients at the Wyoming State Mental Hospital who underwent a 30 day survival training program. The results indicated a large decline in neuroticism after the survival course.

Stimpson and Pedersen (39) conducted a study which considered a survival training experience as a treatment program to modify the evaluation of self, parents, and friends of a group of potential high school dropouts. The subjects were eight male high school students who were identified by a committee of teachers, counselors, and administrators as having at least average intelligence but as unlikely to graduate because of low school achievement.

The program was based on the assumption that underachievement in school results from a multiplicity of factors which include: a series of failures in school leading to low self-esteem; conflicts in family relationships; and inadequate peer relationships and feelings of alientation. A three-week wilderness survival expedition was designed with specific elements focusing on each of the above factors. It was hypothesized that subjects would evaluate self, friends, and parents more positively following the experience.

The three-week expedition included the following: (1) four-day basic training; (2) rest day; (3) four-day survival hike; (4) endurance march; (5) ropes course, (6) three-day solo survival; (7) 10 mile marathon race, (8) final trek, and (9) debriefing.

To evaluate some of the effects of the experience, data were collected two weeks prior to the expedition and again immediately after the expedition. The two instruments administered in the pre and posttest design were: (1) FIRO-B; and (2) Self and Others Rating Scale (SORS), a semantic differential consisting of 25 bipolar adjectives separated by an 80 point scale. The concepts rated were Actual Self, Ideal self, Others in General, Mother, Father, Best Male Friend, and Best Female Friend. There were no significant differences between the pre and posttest scores on the FIRO-B. The data from the SORS did produce significant differences. Overall, the survival

experience resulted in higher evaluation of self and parents, but not at the .05 level of significance.

Corporations are now professing a belief in outdoor adventure pursuits to aid their business profits. They state that challenge courses present useful analogs for the challenges and risk of the business world (2).

Klausner (17) offered a compilation of articles which addressed the need for risk taking in successful business enterprises. His writing acknowledges the need for extended opportunities for individuals to experience high risk activity opportunities which will increase their abilities to manage risk taking in job situations.

In 1973, Koepke (18) studied the relationship between anxiety and self-concept among Outward Bound participants. The basis for her study was that self-concept is related in part to stress, and that since the Outward Bound program may increase stress and anxiety, a change in self-concept might result from confronting stress and anxiety, and that a coping response rather than defensive responses might be elicited.

Koepke (18) carried out her study at the Colorado Outward Bound School, utilizing 33 males and 11 females. Tests were administered at the beginning of the 21 day program and at the end of the program. There was a generally positive growth in self-concept, as indicated by statistically significant changes in 16 of 23 Adjective Checklist Scales, including self-confidence, self-control,

personal adjustment, achievement, nurturance, affiliation, etc. She also noted there were many more similarities than differences between males and females on self-concept scores; the few differences found included males having a higher sense of achievement and females seeking novelty and avoiding routine by the end of the program.

Linder and Linder (19) argued that Outward Bound programs were designed to affect personality traits; therefore, a psychometric approach to the evaluation of Outward Bound impact on individuals was warranted. Furthermore, they chose three psychometric tests particularly well-adapted to Outward Bound, including the Personality Research Form, Acceptance of Self and Others, and the Personal Orientation Scale. These tests were administered before and after the 21-day program. The most consistent finding in the data resulting from this study was that most students in the courses achieved a gain in self-acceptance as measured by the Acceptance of Self and Others Scale. This scale is specifically designed to measure attitudes toward self and attitudes toward others.

Smith (38) conducted a study on 40 juniors participating in a 21-day Outward Bound program by utilizing several psychological tests to determine the impact of that course on selected personality factors. Included in the psychological battery of tests were Gough's Adjective Check Lists, Cattell's Sixteen Personality Factor

Questionnaire, and the present author's constructed scales designed to tap self-confidence and perseverance. Whereas the reliability of the first two instruments was high, for the third there were no measures of reliability or validity. The three time points for various data collection were: before, immediately after, and seven and one-half months after the program. No comparisons were significant. Increases were noted, but not at the .05 level of significance.

Barter (3) reported one of the few studies which indicated negative effects on the Outward Bound participants on aspects of self-image. Utilizing the Adolescent Self-Image Questionnaire which included some 11 scales, he administered the battery of test items to 207 boys before and after they experienced Outward Bound. He found decreases in scores, indicating decrease in adjustment; four of these decreases were statistically significant, including Body and Self Image, Emotional Tone, Sexual Attitude, and Psychopathology.

Meier (25) offered that results of recent studies often indicate that high adventure programs do indeed show positive measurable effects in elements of self-concept. These changes have been most outstanding in special populations such as delinquents, academic underachievers, and mental patients.

Webb (41), in As Sparks Fly Upward, described young people who had been noted as having low self-concepts and

survival camping experience. He offered the behavior changes that occurred during the camping experience with specific emphasis on observable changes in individual's perception of selves. Experiences that offer challenges and involve risk are strongly advocated by Webb to enhance individual's good qualities and improve their perception of selves.

Loughmiller (21) experienced notable success with a resident year-round camping experience for emotionally troubled children. In his writings he described the observed changes and specifically identified positive changes in individual self-concepts. Basically, Loughmiller had applied generally accepted principles of the behavioral sciences to a camp setting which included Maslow's theories, McGregor's Theory X/Theory Y, and Berne's ideas and transactional analysis.

Loy and Donnelly (22) offered recent research on the relationship between need for stimulation and risk involvement. This seemed to have a great amount of theoretical and empirical commonality in that it clearly supported the existence of a human need for stimulation that varies among individuals.

Klausner (17) asserted that both positive and negative types of stress are drawn from the same energy base. Klausner linked this type of stimulus with an optimal level of arousal that an individual seeks. If insufficient stimulation exists in a person's environment, then

the person will likely become bored and seek more stimulation. The physiological response to participation in risk recreation might therefore be tantamount to an adrenalin high.

Schreyer, White, and McCool (37) observed that people who engage in risk sports appear to be involved in something which includes a wide range of sensory and cognitive functions. It is a complex arousal system which goes beyond immediate turnons. It is a challenge for both scientists and the providers of risk recreation opportunities, not only to recognize the complexity of their experience, but to actively ensure that appropriate places and programs for such activities are furnished. Given the rising cultural significance of risk recreation, ignoring these responsibilities would be professionally negligent.

Nisbet (27) commented on women involved in risk recreation. The discussion included a focus on society's pressures which decrease women's involvement in high risk participation, yet noted the steady increase in women's active involvement in risk.

Universities have also begun to develop outdoor adventure programs. Brigham Young University has offered a course entitled "Youth Leadership Through Outdoor Survival." The institution requires all college dropouts who desired reinstatement to complete this course. They theorized that survival training would have a positive

carryover value regarding academic performance. This was substantiated by a study which compared three approaches to improving the grade point of low achievers.

Miles (26) indicated that many participants in Outward Bound and similar programs testified that having confronted self and having met a physical and spiritual challenge, became more secure in their identity and more confident in themselves.

Golins (12), in examining various training methods that provide an element of risk, stated that the Outdoor Adventure programs have successfully demonstrated their effectiveness in providing functional experiences that enhance thinking, emoting, and physically acting out a solution to a problem.

Lingle (21) commented on the Fund for Advancement of Campign (FAC) involvement in youth-at-risk programs. He stated the outcomes of the programs identified by FAC as the following: (1) reestablishment of respect and trust in adults; (2) growth in self-esteem and belief in one's potential; (3) emphasis on one's accomplishments, rather than on one's failures; (4) appreciation of the basic need for rules of conduct; (5) respect for the capabilities, strengths, weaknesses, and rights of others; and (6) ability to think objectively.

Olsen (29) suggested that a "survivor" in risk recreation possesses determination, a positive degree of

stubbornness, well-defined values, self-direction, and a belief in the goodness of mankind.

Tapply (40) stated that self-development, self-image, self-esteem, and self-enhancement can be found among the goals of many wilderness programs, including Outward Bound and the National Leadership School.

Welton (42) has reported that survival training may be a tool for cultivating a deeper understanding of nature than the traditional forms of nature education. This view holds that traditional outdoor education programs are only cognitively oriented, while survival studies are both cognitive and experiential since the participant is required to live within nature's rules rather than in spite of nature.

Tennessee Self-Concept Scale Utilized in Studies

Heaps and Thorstenson (14) administered the Tennessee Self-Concept Scale to 25 students enrolled in an Outward Bound type outdoor survival course at Brigham Young University. The survival experience included an initial shakedown hike, a group expedition with specified physical-geographical goals which included a ropes course and rappelling, a survival week living off the land, student expeditions with no escort, and a solo experience living alone for three days. TSCS scores were compared before versus immediately after, and before versus one

year after by means of t-tests. Significant differences resulted in students' perceptions of their identity, self satisfaction, behavior, physical self, moral self, personal self, and value member became more positive from the beginning to the end of the survival expedition. Results, one year after participation in survival training, indicated the positive change in self and behavioral evaluations were maintained one year following participation. However, the subjects' evaluation of themselves as a family member dropped slightly, and their perception of their social selves improved. Subjective reports from the students indicated that during the first several months following their return from the field, some students experienced a significant drop in the effectiveness of the psychological and social functioning. These months are usually followed by a gradual and apparently difficult return to improved functioning. Two implications seem important: (1) a post-survival experience is needed to facilitate maintenance of positive change; and (2) change during survival may serve as a model for further change or reestablishment of changes lost soon after the experience.

Nye (28) addressed the questions of the effects of the Outward Bound Program on self-concept, and, if they exist, how enduring they are. To specify the questions, he puts forth, in effect, three hypotheses: (1) there will be a significant increase in self-concept as

measured by the Tennessee Self-Concept Scale and in each of its components--this significant increase will be found in test subjects from three months after the Outward Bound program has ended; (2) scores will be unrelated to sex--these scores will remain unrelated to sex some three months after the Outward Bound program has ended; and (3) instructor evaluations will positively and significantly correlate with the Tennessee Self-Concept Scale scores. The study involved a group of 38 male and 46 female high school students who participated in a 24-day coeducational course at the North Carolina Outward Bound School. For a comparison group, he used 50 male and 28 female students taking summer courses. Using the Tennessee Self-Concept Scale he found that the groups were indeed comparable; their pretest scores on self-concept were close. Having established this fact, he reported the conclusions of the study as follows:

1. Self-concept increased significantly and, three months later, the scores still differed significantly from pretest scores.

2. Overall, there were few male-female differences and one would conclude that the null hypothesis could not be rejected.

3. The criterior measure of instructor evaluations did not correlate positively and significantly with TSCS scores.

The treatment was a 24 day standard coeducational course which followed the typical Outward Bound program; initiative tests, ropes course, climbing, rappelling, white water canoeing, expeditioning, and a solor experience of three days alone. The range in age for the group was from 16 years, 6 months to 23 yeas, 5 months, with a mean age of 17 years, 10 months. The majority of the 84 subjects were high school students and were from a middle-class background.

Robbins (32) hypothesized that subjects will experience changes in behavior and attitudes as a result of participating in a 21-day Outward Bound Program, as measured by the Tennessee Self-Concept Scale. The three purposes of this study were: (1) to determine whether certain behavioral changes do take place within an individual during a 21-day Outdoor Survival experience; (2) to determine whether there is a significant change in the psychological and social functioning of survival students during the experience, immediately after, and for a period of 30 days thereafter; and (3) to apply therapeutic treatment to a group of participants to determine what effect it has upon the individual's social and psychological functioning following their return home. To test hypothesis 1, the estimated means of the experimental and control group were compared on the basis of gains obtained from the post minus pre scores of the Tennessee Self-Concept Scale. An analysis of gain

between the post minus pretesting for each dependent variable was performed using the Statistical Package for the Social Sciences (SPSS) and the Modified--Dolittle (MAD), to compare the relative effectiveness of Outdoor Survival versus the control group. Standardized test results did produce estimated mean score changes that reached the .05 level of significance. The .01 and .001 level of significance was also found occasionally within the data. On each of the 11 scales of the TSCS, the mean gain indicated a movement toward a better integrated personality configuration. The only change in a negative direction was the self-criticism factor. More importantly, the characteristics of total positive and self-satisfaction jumped dramatically. Results to hypotheses indicated a significant number of subjects had a difficult time following Outdoor Survival in readjustment to society. These problems are not viewed as pathological, but rather related to value change and the subject's hesitancy to readjust to an old lifestyle. Much of the frustration expressed was "falling back into the old rut," and a desire on the part of the subject to try and keep the peak experiences found while in the wilderness. Results from tests of Hypothesis 3 are inconclusive and must be left for another study where several variables can be controlled.

Wetmore (43) conducted a study of 272 adolescent boys between the ges of 15-1/2 and 19-1/2 who participated in

four separate 26-day Outward Bound programs. The Tennessee Self-Concept Scale was used to measure expressed self-concept of the subjects and was administered on the first and last days of the course, and six months following the end of the course. The study was designed to determine the degree to which a change in the self-concept of adolescent boys is: (1) influenced by an Outward Bound School experience; and (2) related to differences in age, socioeconomic status, race, educational level, residential locale, sports background, and specific course attended at the Outward Bound School. T-tests utilizing means for correlated samples were used to determine the statistical significance of the change in self-concept at the .05 level of confidence. A correlational matrix was computed to determine: (1) the relationship of change in self-concept to background differences; and (2) the relationship between a student's estimate of his self-concept and the instructor's rating of the student's overt behavior. A subjective analysis was made of students' critiques by tabulating and categorizing students' comments. Results indicated a distinct positive statistically significant change (.05 level) in the self-concept of boys while they were in attendance at the school. Six months later, fewer of these items were significant (here the problem may be numbers of subjects reduced to 124, thereby reducing significantly the number of degrees of freedom of the t-tests between correlated

items). Wetmore found no relationship between change in self-concept and social background, leading to the conclusion that Outward Bound can be employed successfully with boys from rather different backgrounds. He found a close relationship between instructors' ratings (using the semantic differential scales) and the Tennessee Scale data. From his questionnaire to the participants, he found that 95 percent were favorable to the program six months after the course had ended.

Christian (6) conducted his study on the relationship of self-concept and physical fitness with three purposes in mind: (1) determining the relationship between initial measurements in physical fitness and self-concept; (2) looking for corresponding change in self-concept if fitness levels are changed; and (3) the role of knowledge of improvement in fitness on the change in self-concept. Using 189 college males as a sample, he administered the Tennessee Self-Concept Scale and a battery of four physical efficiency tests. He had three groups: (1) control group only receiving archery instruction; (2) fitness training group with knowledge of their progress; and (3) group receiving the same fitness training as (2), but without progress reports. This was a six week program. He concluded that there was no significant relationship between physical fitness and self-concept as measured, and that improvement of the selected aspects of physical fitness among college male students does not

result in a changed self-concept for either those knowing the results of improvement or those not knowing.

White (44) used strength, flexibility, and cardiovascular tests to determine fitness levels and the Tennessee Self-Concept Scale to measure self-concept. The 76 member experimental group went through a 10 week program of individual circuit weight training. The posttests revealed significant gains in all fitness measures for the experimental group. The exercisers also increased in the following areas: overall self-esteem, identity, self-satisfaction, behavior, physical self, personal self, and social self. The control group did not show any improvement on any of the tests.

Rohnke (35) noted that while instinct, common sense, experience, or economics may argue persuasively for Project Adventure's approach to physical education, there is also a need for objective evidence to support intuition. In order to assess the value of the Project Adventure program for students, an extensive evaluation program was developed and implemented at the Hamilton-Wenham Regional High School. For three consecutive years, evaluation data was collected from students involved in this course. Six different measures were selected which explored not only the physical component of the program, but the affective dimensions as well. Each year over 200 sophomores at the target school were given a battery of six tests before and after participating in the year long

program. Their scores were compared on a pre-post basis annually and data from the three year period was also examined for trends and consistencies. Despite the lack of a control group, consistent results over the three year period, and the fact that similar results had been obtained in other schools, tend to lend credibility to the initial findings.

The students were given the following tests: (1) the Tennessee Self-Concept Scale; (2) the Rotter Test of Internal versus External Control of Reinforcement, entitled "Inventory of Personal Belief"; (3) McClelland's Classroom Climate Survey modified to "School Climate Survey"; (4) Self-Rating Scale of Classroom Behavior; (5) a Student Questionnaire; and (6) the American Association of Health, Physical Education, and Recreation (AAHPER) Test of Physical Fitness--a modified version.

Scores from these instruments were tabulated and *t*-tests, a special case of the generalized Fisher test for the significant relationships between two means, were done on the results. Many findings were statistically significant at below the .05 level for both years.

In terms of self-concept, as measured on several of the tests, there was evidence that the project did have a positive effect on the self-concepts of students, more strongly for females than for males.

Consistently significant increases in positive identity, in achievement motivation, in willingness to take a

chance and to try new things were found. These results from the Student Questionnaire, the Classroom Climate Survey, and the Tennessee Self-Concept Scale, point to general growth in confidence and lessening fear of change.

These results were quite consistent throughout the three year period despite the fact that the course was first taught by the Project Adventure staff, and then by the physical education teachers at the high school. Similar findings have been obtained at other schools where the program has been started.

Summary

Though many of the risk recreation programs currently existing serve different groups and populations, they all seem to have similar characteristics as to specific outcomes and goals they wish to accomplish. There exists one prevalent outcome in the literature and that is enhancement of one's self.

From the literature it was concluded that risk recreation is often associated with improved self-concept. No research studies have attempted to measure the effects on a one-day high risk ropes course experience on individual self-concept, thus presenting a challenge and an invitation for future research of this nature.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this study was to determine the effects of participation in high-risk ropes course activities on individual self-concept. This chapter outlines the methodology and procedures used for assessing changes in self-concept of individuals before, immediately after, and three weeks after participation in the one-day ropes course experience.

Subjects

The subjects were 21 Oklahoma State University students involved in counseling at the University Counseling Center. The subjects consisted of 13 males and eight females, with the average being 20 years.

This author, in agreement with Pelegrino's (30, p. 75) rule which states, "The results of data from any sample may not be generalized outside the population from which the sample is taken," offers this study as limited only to the described population.

Self-Concept Instrument

Self-concept was measured by the Tennessee Self-Concept Scale, developed by Fitts (11). This instrument

was developed for determining how an individual perceives himself. Each subject was asked to respond to the 100 self-descriptive phrases in the Tennessee Self-Concept Scale, according to the instructions in the test booklet. The scale is self-administering and can be used with persons aged 12 or higher who read at a sixth grade level.

Five responses were provided from which the subject selected one. Those responses included the following: (1) completely false; (2) mostly false; (3) partly false-partly true; (4) mostly true; and (5) completely true.

Ten of the 100 statements came from the L Scale of the Minnesota Multiphasic Personality Inventory and constitute the Self Criticism Score. The remaining 90 statements contribute to the self-concept scores. These 90 statements are organized into a rectangular matrix divided into columns and rows. There are five vertical columns which describe Physical Self, Moral-Ethical Self, Personal Self, Family Self, and Social Self. The three horizontal rows contain Identity, Self-Satisfaction, and Behavior.

Positive Scores. With the Tennessee Self-Concept Scale (TCSC), overall self-concept is reflected in the Total Positive Score (Total P), which indicates the person's general level of self esteem. This score is a total of column scores, which deal with the external frames of references the individual uses to describe

himself, and the row scores which are concerned with how the individual describes himself from an internal frame of reference. The Total P was most closely examined in this study as it reflects overall self-esteem.

Reliability. Fitts (11) reported reliability coefficients, by test-retest, in the range of .80 to .90 for the various scores. Fitts further reported on a study by Congdon, who used a shortened version of the Scale and still obtained a reliability coefficient of .88 for the Total Positive Score. According to Fitts, there is other evidence of reliability found in the remarkable similarity of profile patterns found through repeated measures of the same individuals over a long period of time.

Validity. A primary concern was insuring that the classification system used for Row Scores and Column Scores was dependable. This was accomplished by retaining an item in the Scale only if there was unanimous agreement by the judges that it was classified correctly. Willis (45) stated that highly significant differences have been found between psychiatric patients and non-patients (P .001) on most dimensions of the TSCS, which were indicative of the validity.

Overall, the Tennessee Self-Concept Scale was selected because of its specific and direct attention to the individual self-concept. There was also relative ease in administering the test in an outdoor setting, as

it took only approximately 13 minutes, and could be given to a group without difficulty.

High-Risk Ropes Course

The high-risk ropes course chosen for this study is located in Camp Redlands, three miles west of Stillwater, Oklahoma, and is owned and operated by Oklahoma State University. The course was designed by Kirk Wimberly, (Coordinator of Outdoor Programs at Oklahoma State University) utilizing Project Adventure guidelines. The course was constructed in the summer of 1979, and was opened in the spring of 1980.

Ropes course activities were originally developed to provide individuals opportunities to approach physical activity which combines a joyful sense of adventure, a willingness to move beyond previously set limits, and the satisfaction of solving problems with a group (35). As has been noted in the review of literature, countless values have been obtained through involvement in outdoor adventure experiences which include ropes course activities.

Project Adventure offers these specific goals of the ropes course activities: (1) to increase the participant's sense of personal confidence; (2) to increase mutual support within a group; (3) to develop an increased level of agility and physical coordination; (4) to develop an increased joy in one's physical self and in

being with others; and (5) to develop an increased familiarity and identification with the natural world.

The ropes course activities consist of eight hours that sequentially builds from the lesser obstacles to the more complex. The course includes a series of rope ladders, rope and cable bridges, cargo nets, tree and log balance beams, suspended platforms, and zip wire cables. Participants are on belay to insure maximum safety, yet each element of the course provides an opportunity for risk and challenge. In many ways the course and the risks are relatively uncompromising, which offers an experience that is both stressful and joyful. Project Adventure (35), the group initially conceptualizing ropes course activities, offers that, as participants dare to try, they begin to experience success and recognize that the seemingly difficult is often quite possible.

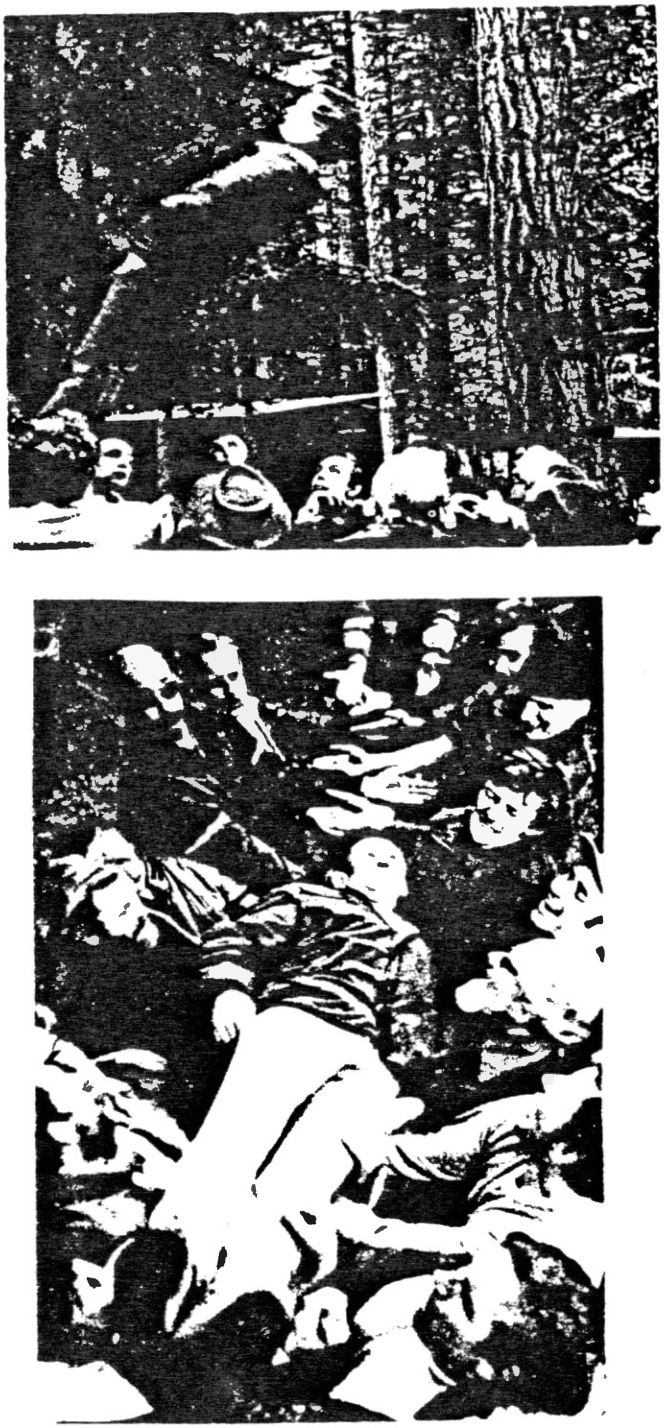
Twenty-one subjects participated in the Camp Redlands high-risk ropes course experience. Upon arrival, the subjects were involved in a variety of warm-up exercises which were intended to result in a more positive attitude toward participation in the ropes course. The subjects then proceeded through the ropes course that is described in the following step-by-step sequence of actual participation.

Trust Fall. Subjects were instructed to catch the backward falling of another individual and then reverse roles. As a group exercise, each subject was asked to

stand upon a six foot platform and fall backward into the arms of the group. There were 10 people standing on level ground to serve as catchers. The faller was instructed to keep his arms close to the side of his body and fall with the body held rigidly. The two lines of catchers stood shoulder to shoulder facing one another. Hands were extended, palms up, so that hands are alternated to form a safe landing area (Figure 1) (35).

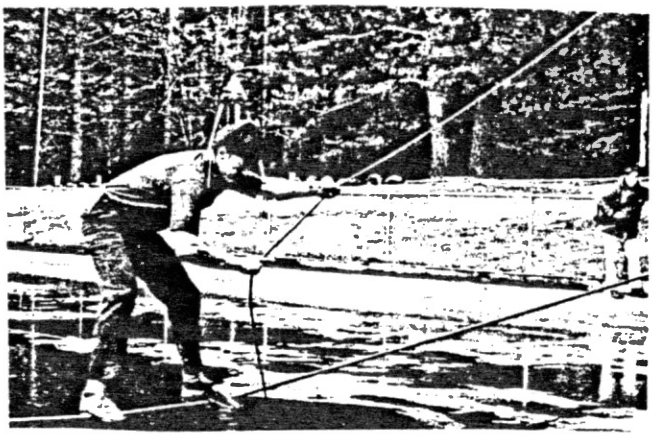
Electric Fence. The object is to transport the group over an "electrified" fence using only themselves and a conductive beam. If a participant touches the fence, he is "dead," and he must attempt the crossing again. Any person touching the individual as he touches the wire must also return for another crossing. If the conductive beam (a small diameter log) touches the wire, all those in contact wit the beam are "dead" and must attempt another crossing. An electric field extends from the wire to the ground and cannot be penetrated. The trees of other supports which hold up the wire cannot be safely touched and so cannot be of assistance in the problem (35).

Tension Traverse. The participant is asked to make his way across a semi-taut wire from end to end in either direction using a diagonally attached rope for balance (Figure 2). There are many ways to attempt successful completion, and the method used is chosen by the participant (35).



Source: K. Rohnke (35).

Figure 1. Trust Fall

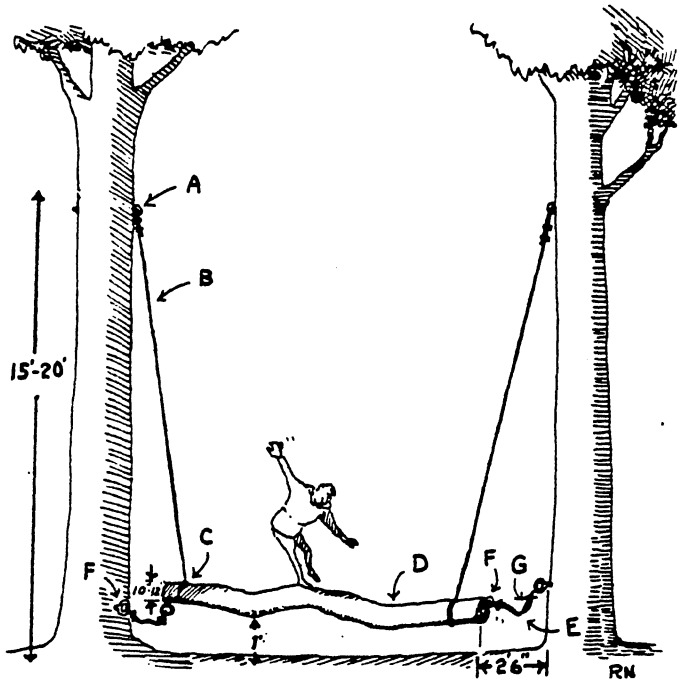


Source: K. Rohnke (35).

Figure 2. Tension Traverse

Swinging Log. The swinging log is a balance log attached at both ends with a free-swinging wire (Figure 3). The challenge is to see if the participant can walk from one end of the log to the other end without falling off (35).

Wild Woosey. Two people attempt to make their way to the end of two diverging wires without either participant falling off. Distance from wire to the ground is about two feet, so that a fall is no problem, and the participants can make another try without preparation or waiting (Figure 4) (35). Techniques vary, but the more that the participants work together and lean on one another, the farther along they will move on the wires.



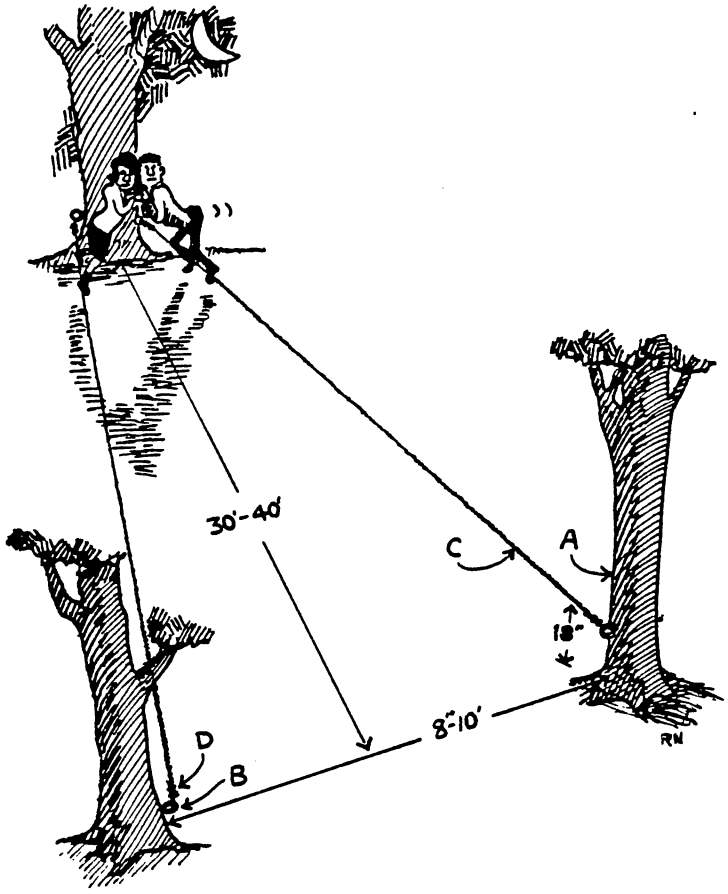
Source: K. Rohnke (35)

Figure 3. Swinging Log

The Wall. The object is to transport the group over a 30 foot wall. This activity requires total cooperation, not only in accomplishing the climb, but as alert partners ready to catch a group member in case of a fall (Figure 5) (35).

The following section of the ropes course is referred to as the high elements and requires all participants to be on belay. Therefore, the following obstacles present an even greater challenge and risk to the participants.

Inclined Log. The inclined log is a hardwood log that is lashed to a firm support (Figure 6) (35). The



Source: K. Rohnke (35).

Figure 4. Wild Woosey

Source: K. Rohnke (35).

Figure 5. The Wall

Source: K. Rohnke (35).

Figure 6. Incline Log

participants are instructed to walk up the log in an erect posture. This particular element is an ideal way to get participants off the ground and provides a good "first" experience on the high elements(35).

Balance Beam. This is a balance beam built high in the air. The beams vary in diameters, lengths, shapes, and angles to provide a number of balance problems (Figure 7) (35).

Source: K. Rohnke (35).

Figure 7. Balance Beam

Two-Line Bridge. This element consists of two parallel 3/8" wires strung between two telephone poles approximately 30 feet off the ground. The participants are on belay to insure a safe, yet precarious, passage (Figure 8) (35).

Source: K. Rohnke (35).

Figure 8. Two-Line Bridge

Zip Wire. Zipping 300 feet or more down a wire cable on a pulley provides an exciting finish to the completion of the two-line bridge. The participant begins the ride from a platform built at the end of the two-line bridge. An instructor waits for the participant on the platform and safely clips him into the zip wire above the pulley. The participant is thus securely fastened to the zip line, and is instructed to place his hands through available loops to enjoy the free flight.

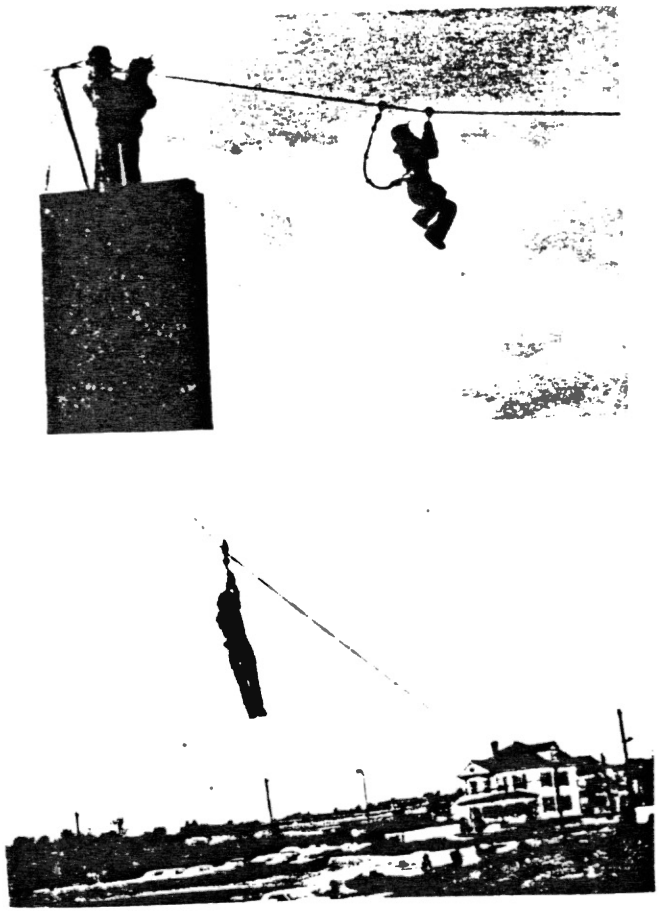
Whether or not the participant jumps from the platform to begin the flight is his own decision. Instructors may encourage and cajole the participant, but the participant's decision is always respected. The participant goes down the wire to the bottom of the arc and then continues toward the other end until he swings gently into the waiting arms of his group members (Figure 9) (35).

Pamper Pole. This ropes course element requires a moderate amount of effort and a great deal of commitment. Safety is insured by an overhead-bottom belay. The object is to climb a subtly swaying vertical 30 foot hardwood pole onto a ridiculously small platform on top of the pole (Figure 10) (35). Standing erect on the platform without using the belay rope for support, the participant jumps (dives) for a trapeze that hangs at eye level from the bottom wire of an even higher two-line bridge. If the participant misses the trapeze, he is caught by the belayer and slowly lowered to the ground.

All subjects successfully completed all elements of the ropes course.

Data Collecting Procedures

Twenty-one subjects, prior to seeing the ropes course, were administered the Tennessee Self-Concept Scale at the University Counseling Center. Pretest time was at 8:30 a.m. on December 2, 1982, at the Counseling



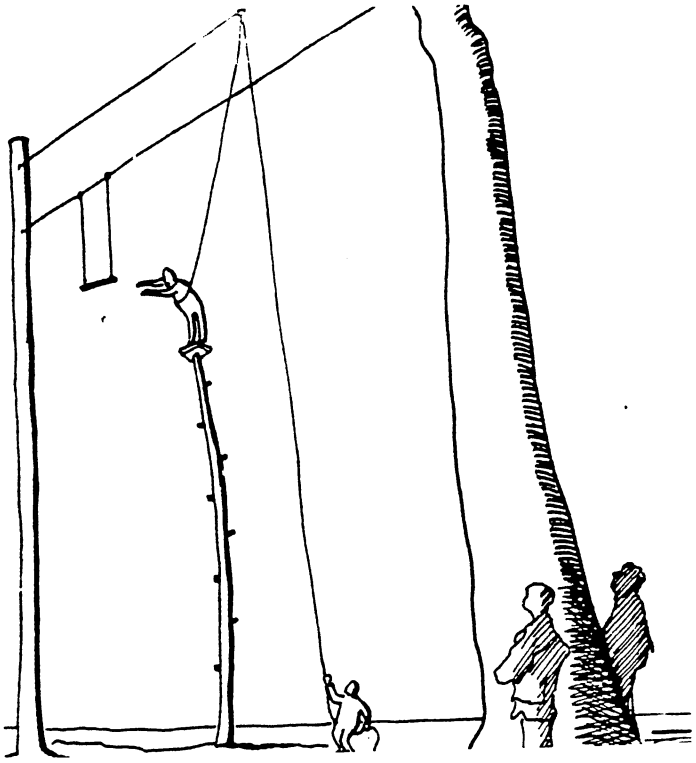
Source: K. Rohnke (35).

Figure 9. Zip Line

Center's large conference room. The pretest was administered by the author with the assistance of one of the counselors on the University's counseling staff. The subjects were then transported to Camp Redlands' high risk ropes course and immediately, upon completion of the course, subjects were administered the Tennessee Self-Concept Test to be utilized as posttest data. Participants then had the opportunity to complete the follow-up Tennessee Self-Concept test three weeks after completion of the ropes course. Score booklets and answer sheets were mailed to the subject's homes with return envelopes addressed to the investigator. Nineteen of the 21 subjects returned the follow-up test which the author felt reflected quite favorably on their interest in the study.

Statistical Treatment

The analysis of variance was utilized to determine differences, if any, at the .05 level of significance between pretest, posttest, and follow-up test data for the total group. Females' pretest, posttest, and follow-up test data was analyzed to determine differences, if any, at the .05 level of significance by utilizing the analysis of variance. The analysis of variance was also utilized to determine differences, if any, at the .05 level of significance between pretest, posttest, and follow-up test data of males.



Source: K. Rohnke (35).

Figure 10. Pamper Pole

CHAPTER IV

RESULTS AND DISCUSSON

The purpose of this study was to determine the effects of a high-risk ropes course on individual self-concept. Pretest vs. posttest vs. follow-up test (given three weeks later) of the total group were analyzed using the Analysis of Variance to determine if a significant difference existed at the .05 level of significance. Pretest vs. posttest vs. follow-up test of females were analyzed using the Analysis of Variance to determine if a significant difference existed at the .05 level of significance pretest vs. posttest vs. follow-up test of males were analyzed using the Analysis of Variance to determine if a significant difference existed at the .05 level of significance (Tables I, II, and III).

Nineteen of the 21 subjects completed the pretest, posttest, and follow-up test utilizing the Tennessee Self-Concept Scale. Two of the male participants did not return their follow-up test, so only 19 subjects were utilized in the statistical computation of this study.

This chapter includes the results and discussion of the statistical analysis of the data collected in this study.

TABLE I

ANALYSIS OF VARIANCE FORMED ON TOTAL GROUP SCORES

Source	Summary Table df	ss	ms	F
Between Groups	2	12.9	6.45	.052
Within Groups	54	6602	122.26	
Total	56	6614.9		

Note: Critical values are: p = .05; F req. = 3.17.

TABLE II

ANALYSIS OF VARIANCE FORMED ON FEMALE SCORES

Source	Summary Table df	ss	ms	F
Between Groups	2	96.1	6.45	1.19
Within Groups	21	850.9	40.51	
Total	23	947.0		

Note: Critical values are p = 1.19; F req. = 3.47.

TABLE III

ANALYSIS OF VARIANCE FORMED ON MALE SCORES

Source	df	ss	ms	F
Between Groups	2	159.4	79.7	.44
Within Groups	30	5371.5	179.05	
Total	32	5530.9		

Note: Critical values are p = .44; F req. = 3.32.

The Total P score is the most important component of the Tennessee Self-Concept Scale as it reflects the overall level of self-esteem. This score is comprised of identity, self-satisfaction, behavior, physical self, moral-ethical self, personal self, and social self (11). The Total P score was utilized to determine if any significant differences existed for: (1) total group; (2) females; and (3) males, by comparing pretest, posttest, and follow-up tests.

Conclusions Based on Hypotheses

1. The hypothesis that there will be no significant difference between pretest, posttest, and follow-up test self-concept scores of the total group after participation in high-risk ropes course experience was not rejected.

2. The hypothesis that there will be no significant difference between pretest, posttest, and follow-up test self-concept scores of the females after participation in high-risk ropes course experience was not rejected.

3. The hypothesis that there will be no significant difference between pretest, posttest, and follow-up test self-concept scores of males after participation in high-risk ropes course experience was not rejected.

Discussion of Results

In discussion of these results, the researcher found it important to note that in examining 19 subjects by comparing posttest raw scores to pretest raw scores, 13 individuals (68.47%) improved their Total P score. Seven of the eight women (89.99%) improved their raw score on the Tennessee Self-Concept Scale when comparing pretest to follow-up test scores. Six of the eleven men (54.54%) demonstrated an improved score on the Tennessee Self-Concept Scale when comparing pretest and follow-up test scores (Table IV).

In discussing the following components of the Total P score, the researcher found it of importance to note the number of individuals that increased/decreased on each raw score, even though it was not offered as a significant difference. In hand grading the Tennessee Self-Concept Scale, the researcher became aware of how important an increase of even one point can be for an

individual. Moving from mostly false to mostly true is only an increase of two points, yet makes an important statement concerning an individual's evaluation of self in a specific area.

TABLE IV

TOTAL P INDIVIDUAL SCORES

Sex	Pretest	Posttest	Follow-Up Test
Females			
(1)	259	272	268
(2)	280	272	281
(3)	268	260	269
(4)	280	269	272
(5)	266	264	271
(6)	272	270	277
(7)	272	261	273
(8)	269	282	278
Males			
(9)	292	295	280
(10)	240	261	253
(11)	276	289	278
(12)	274	263	275
(13)	272	286	281
(14)	271	277	274
(15)	271	260	256
(16)	272	289	280
(17)	302	287	286
(18)	271	271	253
(19)	272	269	272
Mean	272	273	272
Standard Deviation	9.3	11.3	9.4

Self-Criticism: This is a measure of the person's openness or willingness to admit slightly derogatory things about themselves. This score is based on 10 items from the MMPI. High scores generally indicate openness, and low scores indicate a more closed (defensive) attitude. In comparing posttest raw scores to pretest, nine subjects increased and ten subjects decreased (women: four increased/four decreased; men: five increased/six decreased). In comparing follow-up test scores to posttest scores, six increased, twelve decreased and one remained the same (women: three increased/five decreased; men: three increased/seven decreased/one remained the same). In the researcher's opinion it appears that this decrease in scores could have been influenced by the subjects attempting to offer a more positive picture of themselves upon each successive testing period (Tables V, VI, VII).

Identity: These are the "what I am" items. Here the individual is describing his basic identity--what he is as he sees himself. In comparing posttest raw scores to pretest raw scores of the total group, twelve individuals increased, six decreased, and one remained the same (women: five increased/three decreased; men: seven increased/three decreased/one remained the same). In comparing follow-up test raw scores to pretest raw scores of the total group, thirteen increased, five decreased, and one remained the same (women: seven increased/one

TABLE V

SUBJECTS (N=19)

	Pretest X	Posttest X	Follow-Up Test X
Self-Criticism	36.3	35.9	35.6
Identity	83.6	85.5	85.1
Self-Satisfaction	92.6	91.9	91.5
Behavior	96.3	101.1	95.8
Physical Self	59.6	57.1	55.6
Moral Ethical Self	56.0	54.1	54.1
Personal Self	50.3	50.6	51.4
Family Self	55.5	56.9	55.6
Social Self	54.3	54.7	55.8

TABLE VI

FEMALE SUBJECTS (N=8)

	Pretest X	Posttest X	Follow-Up Test X
Self-Criticism	36.6	35.4	36.0
Identity	80.8	84.1	84.6
Self-Satisfaction	94.1	89.9	91.6
Behavior	95.9	93.8	97.4
Physical Self	62.6	56.0	55.0
Moral Ethical Self	53.6	51.9	53.9
Personal Self	51.6	49.5	53.0
Family Self	55.0	56.2	55.4
Social Self	55.5	54.9	56.6

remained the same. It is interesting to note that 68.47% of the total group improved in this component when comparing follow-up raw score to pretest raw score (Tables V, VI, VII).

TABLE VII

MALE SUBJECTS (N=11)

	Pretest X	Posttest X	Follow-Up Test X
Self-Criticism	36.1	35.9	35.3
Identity	85.7	86.5	85.5
Self-Satisfaction	91.5	93.5	91.6
Behavior	96.7	106.5	94.5
Physical Self	57.5	57.9	56.0
Moral Ethical Self	57.7	55.6	54.3
Personal Self	49.3	51.5	50.2
Family Self	56.0	57.5	55.9
Social Self	53.5	54.7	55.3

Self-Satisfaction: This area reflects how the individual feels about the self he perceives and his level of self-satisfaction or self-acceptance. In comparing posttest raw scores to pretest raw scores of total group, six increased and thirteen decreased (women: zero increased/ eight decreased; men: four increased/six

decreased). In comparing follow-up raw scores to pretest raw scores, five individuals increased and eleven decreased/three remained the same (women: one increased/four decreased; men: four increased/six decreased/one remained the same). In this researcher's opinion, a decrease in this score after participating in the high-risk ropes course is not surprising (Tables V, VI, VII).

Behavior: This score measures the individual's perception of his own behavior or the way he functions. In comparing total group raw posttest scores to pretest raw scores, five increased, nine decreased, and nine remained the same (women: two increased/six decreased; men: five increased/ three decreased). In comparing total follow-up raw scores to pretest scores, seven increased, seven decreased, and five remained the same (women: four increased/four decreased; men: three increased/four decreased/four remained the same) (Tables V, VI, VII).

Physical Self: The individual is presenting his view of his body, his state of health, his physical appearance, skills, and sexuality. In comparing total group posttest to pretest raw scores, eleven increased and eight decreased (women: four increased/four decreased; men: seven increased/four decreased) (Tables V, VI, VII). This researcher, having participated in the high-risk ropes course several times, did not find a

slight decrease surprising, since upon facing a series of physical challenges, a more critical assessment of physical self seems quite natural, and could possibly motivate a desire for future improvement.

Moral-Ethical Self: This score describes the self's moral worth, relationship to God, feelings of being a "good" or "bad" person, and satisfaction with one's religion or lack of it. In comparing total group posttest raw scores to pretest raw scores, seven increased, ten decreased, and two remained the same (women: two increased/six decreased; men: five increased/four decreased/two remained the same). In comparing total group follow-up raw scores to pretest raw scores, seven increased and twelve decreased (women: five increased/ three decreased; men: two increased/nine decreased (Tables V, VI, VII).

Personal Self: This score reflects the individual's sense of personal worth, his feeling of adequacy as a person, and his evaluation of his personality apart from his body or his relationship to others. The total group, in comparing posttest raw scores to pretest raw scores, demonstrated that six increased, eleven decreased, and two remained the same (women: zero increased/eight decreased; men: six increased/ three decreased/ two remained the same). In comparing total group follow-up test scores to pretest, fourteen increased, four decreased, and one remained the same (women: seven

increased/one decreased; men: seven increased/three decreased/one remained the same). Since 79.99% of the total group shows an increased raw score in this area, the researcher is encouraged to consider the possibility that eventually the subjects' opinions of their bodies will coincide with their opinion of their personal worth (Tables V, VI, VII).

Family Self: This score offers one's feelings of adequacy, worth, and value as a family member. In comparing posttest to pretest raw scores of the total group, eleven increased, seven decreased, and one remained the same (women: five increased/three decreased; men: six increased/five decreased). In comparing total group follow-up tests to pretest scores, ten increased and nine decreased (women: four increased/four decreased; men: six increased/five decreased). The ropes course experience offers opportunities to explore group cooperation; therefore, the researcher was interested to note changes in this area.

Social Self: This category reflects the person's sense of adequacy and worth in his social interaction with people in general. In comparing posttest raw scores to pretest raw scores of the total group, ten increased, three decreased, and six remained the same (women: two increased/one decreased/five remained the same; men: eight increased/two decreased/one remained the same). In comparing total group follow-up scores to pretest,

fourteen increased, three decreased, and two remained the same (women: seven increased/one decreased; men: seven increasd/two decreased/two remained the same). Of the individuals' raw scores, 79.99% increased when comparing follow-up tests to pretests (Tables V, VI, VII). Although all three hypotheses were not rejected, it does appear the one-day ropes course experience warrants further investigation to observe and determine the specific impact individuals are receiving from this experience, and to identify the individuals demonstrating positive benefits after participation.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to determine the effects of participation in a high-risk ropes course on individual self-concept. The Tennessee Self-Concept Scale was used to determine self-concept level.

Twenty-one (13 males and 8 females) were administered the Tennessee Self-Concept Scale at the University Counseling Center. Pretest time was at 8:30 a.m. in the Counseling Center's large conference room. The pretest was administered by the researcher with the assistance of one of the counselors on the university counseling staff. The subjects were then transported to Camp Redlands high-risk ropes course, and, upon completion of the course, were administered the Tennessee Self-concept Scale. Participants then had the opportunity to complete the follow-up test copy of the Tennessee Self-Concept Scale three weeks after completion of the ropes course. Score booklets and answer sheets were mailed to the subjects' homes with return envelopes for the researcher. Nineteen of the twenty-one participants returned their follow-up test form, which, in the researcher's opinion, reflected quite positively the subjects' attitudes concerning the study. All but two of those subjects returning their

follow-up tests requested a copy of the results of the study.

The analysis of variance was used to analyze the data by comparing the Total P in pretest, posttest, and follow-up test results of: (1) total group = 19; (2) females = 8; and (3) males = 11, to determine if a significant difference existed at the .05 level.

The Total P score is the most important score of the Tennessee Self-Concept Scale, as it reflects the overall level of self-esteem. This score is comprised of identity, self-satisfaction, behavior, physical self, moral-ethical self, personal self, and social self.

Findings

There was no significant difference at the .05 level of significance on the pretest, posttest, and follow-up test scores of the total group. There was no significant difference at the .05 level of significance on the pretest, posttest, and follow-up test scores of females, nor was there was a significant difference at the .05 level of significance on the pretest, posttest, and follow-up test scores of males.

Recommendations

The concept of a one-day ropes course experience is rapidly expanding, and the researcher contends the need exists for continued research to determine what impact is

occurring, how to measure this impact, and to identify specific populations most positively affected by the one-day ropes course experience.

The researcher's personal experience, observations from counselors at the Counseling Center, and reports from participants offer the one-day ropes course as a dramatic experience. For this reason, the researcher recommends a study to identify the psychological impact, and how that impact can be measured. An observational study to note psychological changes over a one year period would be a suggested study format.

Utilization of video equipment to offer participants an opportunity to view their performance noting success strategies and difficulty areas could be an impactual addition to the participants' overall one day experience. The researcher would recommend this study to include a control and an experimental group. The experimental group would be given an opportunity to view their performance. Follow-up data could be collected at set intervals over a six month period to note differences in control and experimental group.

This researcher suggests further research to determine what type of individuals would best profit from the one-day ropes course experience. This could be accomplished by selecting specific populations (i.e., juvenile delinquents, alcoholics, mental patients, academic drop-outs, business persons, government officials, therapists,

etc.) to determine the effectiveness of a one-day ropes course experience for each group.

A study could be conducted involving a control and an experimental group, with the experimental group being given specific instructions to note their internal process when going through each of the obstacles and challenges. Upon completion of the ropes course experience, the experimental group would be involved in a follow-up discussion focusing on the individual's internal process while involved in the ropes course experience. The control group would be given no instructions and would not be involved in the follow-up discussion. Comparisons would be made between the control and the experimental group three months after participation to determine the impact of the experience on each group.

In conclusions, risk could be considered the key to change. Perhaps the change is not in self-concept of individuals upon experiencing only a one-day ropes course experience. Yet, the researcher remains extremely interested in determining the specific values or impact gained from participation in a high-risk ropes course experience. What changes do occur? Are those changes profitable and long lasting? How do we measure the changes, and what populations are most significantly impacted by the ropes course experience? These are questions still waiting to be answered.

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APPENDIX

SUBJECT PROFILE

NAME:_____

QUESTIONNAIRE #:_____

MAILING ADDRESS:_____

AGE:_____

SEX:_____

I would greatly appreciate your participation in my dissertation study. The information received will remain confidential in regard to individuals' names. The reason I am requesting a name and address is for mailing a posttest to you in three weeks, to be completed on the assigned date. If you are interested in further information concerning the results of the study, please indicate in the space designated on your follow-up test form. Thanks for your assistance.

Carol Ann Washburn

REQUEST FOR DATA RESULTS

If you are interested in receiving the results of this study, please indicate by completing your address for June, 1983, in the spaces below.

Name:_____

Mailing Address:_____

City, State, and
Zip Code: _____

FOLLOW-UP LETTER TO PARTICIPANTS

December 2, 1983

Dear

I would like to take this opportunity to sincerely thank you for participating in my dissertation study. The results will be compiled and written up by May, 1983, and I would be pleased to send you a copy if you are interested. As you know, there will be no names utilized in the study, but you will be able to gain the information concerning the overall results.

Enclosed is a copy of the Tennessee Self-Concept scale and a blank answer form. Specific instructions are offered on the front page of the blue booklet and I would appreciate your reading them carefully prior to completing the answer sheet. Please complete the answer sheet on Thursday, December 22, and place it in the mail. This will allow a three week period since your last completion of the Tennessee Self-Concept scale, and completing it on the designated date will greatly aid my study.

I have enclosed a self-addressed envelope in which to place your answer sheet and the blue Tennessee Self-Concept Scale booklet. Utilizing this envelope will insure my receiving your form. If you have any questions, please call at (405) 377-5196.

Thank you.

Sincerely,

Carol Ann Washburn

VITA

Carol Ann Washburn

Candidate for the Degree of

Doctor of Education

Thesis: THE EFFECTS OF PARTICIPATION IN HIGH-RISK ROPES COURSE ACTIVITIES ON INDIVIDUAL SELF-CONCEPT

Major Field: Higher Education

Minor Field: Health, Physical Education, and Recreation

Biographical:

Personal Data: Born in Grandfield, Oklahoma, January 29, 1952, the daughter of Mr. and Mrs. Wayne Washburn.

Education: Attended elementary, junior high, and high school in Grandfield, Oklahoma; graduated from Grandfield High School in 1970; received Bachelor of Science degree in Speech/Theatre Education from Oklahoma State University in 1974; received Master of Arts degree in Speech/Theatre from Oklahoma State University in 1979; completed requirements for Doctor of Education degree at Oklahoma State University in May, 1983.

Professional Experience: Taught speech/drama/communications in Stillwater Public School system, 1974-81; coached varsity women's basketball, in the Stillwater Public School system, 1977-81; received research assistantship while working toward Doctor of Education degree from Oklahoma State University, 1981-82; self-employed communication consultant, 1982-present.

Professional Organizations: Member of Oklahoma Association for Health, Physical Education, and Recreation and the American Alliance for Health, Physical Education, Recreation and Dance.