This study investigated the effectiveness of using an outdoor-adventure education program as a method of intervention for enhancing the self-concept of a group of hearing impaired individuals receiving services from the Department of Vocational Rehabilitation. Nine adults (6 male, 3 female) with hearing impairments participated in a 4-day wilderness experience that included cross-country skiing, snow shelter construction, winter camping, a high ropes course, group initiative tasks, environmental awareness instruction, and a period of individual isolation. Pre- and post-test scores of the Culture-Free Self-Esteem Inventory for Adults were analyzed. Post-test scores were significantly higher than the pre-test scores. Conclusions about the impact of the experience are guarded due to the small number of subjects and the lack of a control group, but the benefits of an outdoor adventure program as an ancillary component to existing rehabilitation programs are noted. (CL)
Outdoor-Adventure Education as an Ancillary Component in Rehabilitation Programs for the Hearing Impaired: A Pilot Study.

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ABSTRACT

Many professionals working with persons who are deaf are concerned with the difficulties that they experience in establishing a positive self-concept. The significance of self-concept to personal development, mentally, socially, and vocationally has been substantiated throughout the years. Outdoor adventure provides an innovative interface of learning pursuits, wilderness challenge and opportunities to enhance self-concept. A four day course at the Colorado Outdoor Education Center for the Handicapped demonstrated statistically significant gains in the self-concept of deaf participants and a need for further research.
For many hearing impaired individuals, limitations of communication with others and the inability to learn vicariously from the environment through the auditory modality result in a restricted set of knowledge about one's self (Garrison, Emerton & Layne, 1978). The concept of self is pervasive in its importance to all human beings (Brandon, 1981; Combs, 1959; Erikson, 1963; Gergen, 1971; Havighurst, 1948; Jersild, 1952; Lewin, 1935; Rogers, 1951; Rosenberg, 1979). Self-concept constitutes an individual's means of viewing oneself and the surrounding world. Educational and vocational accounts of deaf individuals indicate that it is not the lack of innate capabilities that cause personal limitations. Deaf individuals continue to show normal potential and depressed achievement (Trybus & Karchmer, 1977). Investigations (e.g., Loeb & Sarigiani 1986; McFern, 1973; Myklebust, 1960; Ndurumo, 1980; Randall, 1969; Schuldt & Schuldt, 1972; Simon, 1978; Sussman, 1973) in the area of self-concept and hearing impaired persons have produced findings of less adequate personal adjustment and poorer self-concepts than hearing peers.

The Colorado Outdoor Education Center for the Handicapped offers challenging success oriented wilderness experiences to a variety of special populations. The courses consist of a series of prescribed physical and social tasks, where
stress, uncertainty, and the need for problem solving, communication and immediate judgement are present. Each activity is confidence building providing a collective experience for course participants in the areas of problem solving, leadership, group cooperation, personal responsibility, self awareness, and the acquisition of new skills. Through group discussions and the personal sharing of feelings, individuals are able to develop a better understanding of themselves and strategies for coping with challenging experiences on the course and in their daily lives.

Research (e.g., Gaston, 1978; Gibson, 1981; Koepke, 1973; Marsh, et al, 1986; Nye, 1975; Porter, 1977; Stremba, 1982; Travers, 1982; Winkie, 1977; Wright, 1982; Vidulovilis-Moore, 1979), in the area of outdoor adventure has demonstrated the process to be effective in improving individuals' self-concept and interpersonal skills. Yet to date, this type of intervention has not been investigated with hearing impaired individuals. The purpose of this study was to investigate the effect of an outdoor adventure program on the self-concept of hearing impaired participants.
Method

Participants

The participants in this study were six (6) male and three (3) female adults who were hearing impaired and receiving services from the Colorado Department of Vocational Rehabilitation. Individuals ranged in age from 18.3 to 30.4 years with a mean age of 24.3. Each person received services from the Department of Vocational Rehabilitation and voluntarily participated in the course.

Instrumentation

The Culture-Free Self-Esteem Inventory for Adults (Battle, 1981) was the instrument chosen to measure each individual’s perception of self. Test-retest reliability is reported to be .81 and concurrent validity has been established with the Tennessee Self-Concept Scale (Kernaleguen & Conrad, 1980), with a significant correlation of .82 for the total scores. The scale is comprised of 40 statements to which the individual checks each item either “yes” or “no”. The self-esteem score is the total number of items checked.
reflecting high self-esteem. The scale was administered in a group setting with each item presented using total communication (simultaneous use of sign language and speech), as well as the written statement.

Procedure

A pre-test, post-test format was used for this study. Individuals were tested upon arrival in Breckenridge, Colorado and once again directly after course completion. Each individual participated in an intensive four day wilderness experience at the Colorado Outdoor Education Center for the Handicapped in Breckenridge, Colorado. The course was comprised of a series of progressive activities that included: introduction to cross-country skiing, a cross-country ski tour, snow shelter construction, winter camping, a high ropes course - an obstacle course composed of rope walks, crude ladders, and logs set in pine trees thirty feet in the air, group initiative tasks, winter first aid instruction, environmental awareness instruction, and solo - a period of individual isolation. Post activity discussions occurred throughout the course to facilitate the transfer and generalization of the successes on the course to the participants daily lives.
Results

Of the 40 items on the Culture-Free SEI for Adults, 32 are designed to assess an individual's perceptions of self worth. The remaining 8 make up the lie scale. A correlated samples t-test was calculated comparing differences in pre-test, post-test scores for self-concept. A significant difference was indicated with the post-test scores (M = 22.67) higher than the pre-test scores (M = 19.11), t(8) = 3.05, p < .01.

Discussion

The purpose of this study was to investigate the effectiveness of using an outdoor-adventure education program as a method of intervention for enhancing the self-concept of a group of hearing impaired individuals receiving services from the Department of Vocational Rehabilitation. Statistical analysis indicated that significant differences existed between pre- and posttest scores.

Although this brief training program was effective in enhancing the self-concept of the hearing impaired
participants some limitations of the current experiment must be mentioned. Hearing loss, intelligence level, and demographic details were not included. The small number of subjects and the absence of a control group contribute to the need for guarded conclusions about the impact of the experience. Nevertheless, because self-concept plays such a central role in the organization of each individuals' personality, further research for some of the limitations mentioned would be highly recommended.

The complacency, unemployment, and underemployment of many hearing impaired individuals is a sad reality. The need to assist individuals who are deaf in developing the limits of their potential is essential. Outdoor-adventure can provide an ancillary component to existant rehabilitation programs. With over three hundred outdoor-adventure programs operating in the United States, it is imperative that we seek alternative methods of facilitating growth and personal development. Outdoor adventure and the hearing impaired is one present day research question that needs to be further explored.
REFERENCES


*Dissertation Abstracts International*, 37, 142-A 
(University Microfilms No. 76-15, 844).


