

## AN ABSTRACT OF THE THESIS OF

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Title: Structured Group Psychotherapy for Individuals with Spinal Cord Injury.

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Joseph W. Sendelbaugh

This investigation was conducted to determine the effectiveness of Personal Achievement Skills (PAS), a structured group psychotherapy approach, on the productivity, social functioning, self-esteem, locus of control, and life satisfaction of individuals with traumatic spinal cord injury. Subjects for the study were recruited through disability advocacy organizations, state disability service agencies, and local colleges, universities, and rehabilitation centers.

The research design utilized was a randomized, pretest, posttest control group design with 15 experimental and 14 control group subjects. A behavioral Activity Questionnaire was specially designed for the study to assess productivity. It included activities such as employment, educational pursuits, social and community involvement, volunteer work, and family responsibilities. Other measures included: (a) the Affiliative Tendency Scale, (b) the Rosenberg Self-Esteem Scale, (c) the Nowicki-Strickland Locus of Control Scale, and (d) the Life Satisfaction Index.

The results of the investigation indicated that PAS group participants, in comparison to the control group, improved significantly on the self-esteem measure. No such improvement was found on the other measures in the study. With regard to the self-esteem finding, male subjects responded more favorably to the PAS approach than female subjects. The issues and concerns of using the PAS approach with individuals with physical limitations were discussed along with recommendations and modifications for future research.

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Individuals with Spinal Cord Injury

by

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APPROVED:

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Professor of Special Education and Rehabilitation in charge of major

Redacted for Privacy

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Head of department of Counselor Education and College Student Services Administration

Redacted for Privacy

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Dean of College of Education

Redacted for Privacy

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Dean of Graduate School

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Typed by Lani G. Searl for Roger A. Frank

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# **STRUCTURED GROUP PSYCHOTHERAPY FOR INDIVIDUALS WITH SPINAL CORD INJURY**

## **CHAPTER I**

### **INTRODUCTION**

#### **BACKGROUND OF THE PROBLEM**

Prior to World War II, virtually all persons who incurred a spinal cord injury died within a short period of time following their injury. Physicians believed that individuals who sustained a complete lesion of the spinal cord were hopeless cases (Guttman, 1946). However, with the introduction of sulfanilamides and antibiotics in the 1940s, the survival rate changed dramatically. Men injured during World War II survived beyond the usual 60 to 90 days and provided Army and Veteran Administration (VA) hospitals with a new challenge. Prolonged custodial care within an institutional setting had to be provided for those with new spinal cord injuries. Techniques to manage bowel and bladder function were devised and physical and occupational therapy programs were developed to teach self-sufficiency. These advances in medical treatment and physical rehabilitation tended to foster an increasing emphasis on the psychological and social aspects of spinal cord injury (SCI).

The importance of psychological rehabilitation and adjustment has developed slowly. For many years, the traditional focus of rehabilitation has been on the physical aspects of the disability, such as mobility techniques and independent living skills. Rehabilitation programs generally failed to address ways of assisting the newly injured individual to cope with the social and emotional dimensions of the problem. However, professionals are increasingly

recognizing the importance of the psychosocial issues of adjustment. Many believe that once the individual is medically stable, the predominant problems faced by the person with a spinal cord injury are psychological in nature (Abramson, 1968; O'Conner & Leitner, 1971; Trieschmann, 1980; Krause & Crewe, 1987; Siller, 1969; Romano, 1976; Cogswell, 1968; Kahn, 1969).

This new psychosocial emphasis has been accompanied by changing definitions of successful rehabilitation. Wright (1960) believed rehabilitation should focus on assisting the client to achieve the best life adjustment possible, be it social, vocational, recreational, or educational. Siller (1969) asserted that "the job of properly rehabilitating patients is impossible without giving full cognizance to the impelling psychosocial problems they face" (p. 290). Trieschmann (1988) states that rehabilitation involves a process of teaching people to live with their disability in their own environment. She notes that the psychosocial aspects of the disability are of major importance and not the physical dimension. Trieschmann adds that there is growing evidence to support the conclusion that rehabilitation programs need to change their emphasis from a body-oriented to a person-oriented approach.

Other professionals have also emphasized the importance of the psychosocial aspects of spinal cord injury. Mueller (1962) wrote that the onset of SCI can result in uncontrolled emotionality, potential explosiveness, and hostility. Hohmann (1975) believes that pain, altered sexual functioning, and the impact of the injury on the family can cause major adjustment difficulties. Burnham and Werner (1978) state that SCI rapidly and radically alters the individual's self-image and social role, and requires unparalleled social and psychological adjustment. Krause and Crewe (1987) suggest that the newly injured person's psychosocial and vocational adjustment may influence their survival and longevity. Their 11-year study indicated that individuals with SCI who were initially rated as having good

psychosocial adjustment survived longer than those who were assessed as poorly adjusted. Dunn (1977) believes that professionals in the field of rehabilitation have often overlooked the social impact of SCI. He states that certain social situations create anxiety and withdrawal in persons with SCI and yet rehabilitation research involving social skills training has been underemphasized (Dunn, Van Horn, & Herman, 1981).

The incidence of spinal cord injury in the United States has been estimated at 50 persons per million population per year, or approximately 8,000 persons who incur a spinal injury each year (Young, Burno, Bowen, & McCritchen, 1982). The National Spinal Cord Injury Statistical Center at the University of Alabama-Birmingham indicates that the mean age at onset of spinal cord injury is 29.7 years, and the most frequently occurring age is 19 years (Stover & Fine, 1986). These figures indicate that this population is predominantly young. With advances in medical science, they may achieve a life expectancy that is similar to that of the able-bodied population (Trieschmann, 1988). Hence, with a post-injury life span of 30, 40, or even 50 years, successful rehabilitation, and subsequent psychosocial and vocational adjustment, becomes extremely important.

### Productivity and Spinal Cord Injury

An important index of psychosocial adjustment to SCI is the individual's degree of productivity. Productivity is often defined as "activities of a constructive nature" and may include not only vocational success but also social and community involvement, avocational pursuits, and family participation (Kemp & Vash, 1971). When using these variables as indicators of productivity, most studies suggest problematic levels of functioning for persons with SCI.

Gordon, Lehman, and Brown (1982) measured the activity patterns of individuals with SCI by assessing participation in categories such as general activity level, work, family

role, independent activities, and social activity. Their results indicate that both quadriplegics and paraplegics are considerably less active on these measures than a non-disabled comparison group. Cogswell (1968) studied the readjustment patterns of a group of 35 persons with SCI. In comparison to pre-trauma life, all of the individuals showed a marked reduction in (a) number of social contacts with others in the community, (b) frequency in entering community settings, and (c) the number of roles they played.

With regard to vocational success, individuals with SCI have not fared well in comparison to other disability groups or to the disabled population as a whole. Studies indicate an employment rate which ranges from 24 to 28 percent (Brown & Giesy, 1986; Wilson, Hensley, & Owens, 1984) for persons with SCI. In comparison, individuals with blindness have a 30 percent employment rate (National Federation for the Blind, 1988), and the disabled population as a whole has an employment rate of 36 percent (Social Security Administration, 1986).

Krause (1990) surveyed 344 persons with SCI to obtain information on employment status, activity level, and psychological adjustment. The findings suggested that employment and activity level was strongly related to psychological adjustment. Those who were employed, or involved in unpaid productive activities, perceived themselves as having fewer problems and being more satisfied with life than persons who were not engaged in any productive activities. In addition, these individuals had completed more years of school and had fewer medical problems.

A study by Kemp and Vash (1971) focused on predicting a broader criterion of productivity for individuals with SCI. They assessed a wide range of variables including social, psychological, and behavioral factors. Their findings suggested that the most productive persons were characterized by (a) a forward-looking, goal-setting style; (b)

effective social functioning; and (c) high self-esteem. The authors suggested that rehabilitation professionals implement group counseling approaches aimed at developing the characteristics that their study found as being predictive of high productivity.

### Group Counseling Approaches

Group counseling is a technique often recommended as a strategy to improve the psychosocial functioning of persons with disabilities. Salhoot (1977) outlines several advantages of group approaches for individuals with severe disabilities. She believes that the group process sensitizes group leaders to the feelings, problems, and potential of those with disabilities in a shorter period of time as compared to individual counseling. In addition, she believes that through group counseling, rehabilitation staff are often able to make a more accurate psychosocial assessment of clients and that they can receive valuable feedback regarding the effectiveness of rehabilitation services. Other professionals feel group counseling allows people with disabilities to share common concerns, such as adjustment to the personal impact of disablement (Kerv, 1961; Wright, 1960). These concerns may also include a sharing of interpersonal stress as it relates to the stigma and discrimination often imposed on those with disabilities by nondisabled persons (English, 1971; Ladieu-Leviton, Adler, & Dembo, 1948). Group counseling is also thought to aid individuals with disabilities in vocational adjustment (Bass, 1969), as well as helping them to regain feelings of self-worth through group acceptance and role-playing (Manley, 1973).

Although most professionals agree that group counseling is a valuable tool in rehabilitation, few studies have been performed to validate its effectiveness for persons with SCI. Mann, Goodfrey, & Dowd (1973) described a group counseling approach aimed at increasing a sense of personal worth among newly injured patients in a rehabilitation setting. Maki, Wineograd, & Hinkle (1976) reported the use of an ego-supportive approach to help



group participants build on existing positive qualities, motivation, and coping skills. Cimperman and Dunn (1974) conducted group sessions with persons with SCI; however, their goals and focus for the groups were unspecified. Attendance for the 12 persons ranged from none to six, with an average of three attending the weekly meetings. None of the group studies focusing on persons with SCI mentioned thus far provided any data to assess outcomes. However, one study by Miller, Wolfe, & Spiegel (1975) did attempt to assess group counseling outcomes based on an instrument developed by the authors called a Spinal Cord Knowledge Inventory Test. The test was designed to measure changes in knowledge and attitude about disability, perceived family support, and self-concept. Those who participated in the group increased their knowledge about disability and improved their self-concepts.

Rehabilitation professionals who are interested in starting a group to enhance the productivity or psychosocial functioning of persons with SCI would be at a disadvantage for three reasons. First of all, as previously mentioned, there is a clear lack of SCI group counseling research upon which to base an approach. Secondly, of the studies that have been done, only one utilized a pre-test/post-test design (Miller, Wolfe, & Spiegel, 1975), and yet no data were provided to assess the reliability or validity of their instrument. Consequently, none of the studies mentioned provide any hard data to validate the efficacy of their respective approaches. Thirdly, and most importantly, the group approaches identified failed to specify their actual processes and goals in a detailed manner. As a result, practitioners have no concrete information regarding which specific procedures or behaviors should be promoted in an actual group setting.

### Structured Group Interventions

Structured experiences within a group setting may be considered for work with individuals with disabilities. The term "structured experiences" refers to "an intervention in a group's process that involves a set of specific instructions for participants to follow" (Kurtz, 1975, p. 167). An example of such an experience could involve breaking members of the group up into dyads and instructing the pairs to practice one-to-one listening exercises to improve communicational abilities. Parloff and Dies (1977) reviewed standard group therapy outcome research for persons with disabilities over a ten-year period. Their review yielded few significantly favorable outcomes. A common concern by Parloff and Dies, and by Bergin (1971) was that research investigators did not clearly outline their group techniques, orientations, or particular interventions. Outcome research using structured approaches have fared better. Soloman, Berzon, and Davis (1970) assessed the impact of a structured group approach with vocational rehabilitation clients and found that such an approach led to increases in self-esteem, self-disclosure, and motivation to work. Other authors have also reported favorable results with structured methods in working with people with disabilities (Salhoot, 1977; Singler, 1977; Kaseman, 1976). In addition, methods which combine structure with a goal-oriented approach have been found to have positive outcomes. Parrott and Hewitt (1978) found that structured, goal-oriented group programs were positively related to increases in self-esteem, and Wetzell, Kinney, Beavers, Harvey, and Urbanik (1976) reported that they led to gains in goal achievement in persons with psychiatric disabilities.

The use of a structured, goal-oriented group model may have merit for individuals with SCI. A significant proportion of the SCI population consists of young physically active males who are not likely to spend a great deal of time in serious introspection (Malec, 1985; Rohe & Althelstan, 1982). As a result, they may not respond well to standard

psychotherapeutic techniques which emphasize insight-oriented approaches. This is a heterogeneous population and there will be exceptions; however, most may be more positively impacted by what Trieschmann (1988) calls "a reality-oriented interactive process that identifies behaviors to be tested, provides an opportunity to test them, and follows up with a discussion of results" (p. 126).

### Personal Achievement Skills

Personal Achievement Skills (PAS) is a structured, goal-oriented, group counseling approach developed by Roessler and Means (1976). PAS is divided into two essential elements: the social phase and the motivational phase. The social phase of the program includes exercises for building group cohesion and training in effective communication. The motivational phase focuses on goal attainment through specific exercises and activities aimed at value clarification, goal setting, and goal achievement.

The PAS approach would appear to have significant potential for improving the productivity of persons with SCI. Its emphasis on building effective communication skills and on setting and achieving goals focuses directly on the behaviors that the Kemp and Vash (1971) study found to be predictive of high productivity. In addition, PAS has been shown to be effective with other disability groups. In a study with a visually impaired population, PAS subjects made significant gains on measures of self-esteem, goal attainment, and a scale to assess optimistic beliefs (Roessler, 1978).

A research study was attempted to assess the value of PAS on subjects with SCI (Roessler, Milligan, & Ohlson, 1976). The study was not completed due to a 60 to 80 percent attrition rate of subjects. According to the researchers, the attrition rate was high because PAS was not considered to be an important priority by the staff of the rehabilitation facility where subjects were receiving inpatient treatment. The present study attempted to

avoid this problem by selecting subjects who are at least one year post-injury and out of a rehabilitation setting.

Although those who incur spinal cord injury do reflect the general population as a whole, the research showed them to be significantly less productive than the non-disabled population. Those who were less productive were also characterized by excessive anxiety, inadequate social functioning, and pessimism. Since the degree of productivity can be taken as one index of overall adjustment to spinal cord injury, methods to enhance and promote it could be of significant value.

The purpose of this study is to assess the effects of Personal Achievement Skills on the behavioral and psychological correlates of productivity in persons with SCI. The program will be described in its entirety in Chapter III.

## DEFINITION OF TERMS

### Spinal Cord Injury

The spinal cord is a bundle of nerve fibers which extends from the base of the brain down through the bones of the spinal column (vertebrae) to the lumbar vertebrae level. It consists of many parallel nerve tracts which serve to provide sensory and motor communication and control between the brain and the muscles and limbs of the body. Severe injury to the spinal cord through accident or disease causes loss of sensation and loss of voluntary motion below the level of injury. If the injury is to the upper part of the spine in the region of the cervical vertebrae, the condition is called quadriplegia, as there is involvement of all four extremities. If the injury is lower, in the thoracic or lumbar area of the spine, the result is paraplegia, involving only lower extremities. However, this is only a gross differentiation. The specific symptoms will depend on the level of the lesion.

### Psychotherapy or Counseling

The terms psychotherapy or counseling will be used interchangeably in the present study. Patterson (1974) maintains that the basic processes are similar, if not the same. Both refer to a therapeutic and growth process through which individuals are helped to make decisions, solve problems, and adjust to their environments.

### Productivity

Productivity is defined in this study as activities of a constructive nature such as being employed or pursuing an education, having hobbies or avocational interests, doing volunteer work, being active in organizations, being involved in social activities, and participating in domestic activities in a single person or family household (Kemp & Vash, 1971). Productivity will be measured by an activity questionnaire designed for this study by the investigator (Appendix B).

### Locus of Control

Locus of control is generalized expectancy involving an individual's perception of reinforcements as being a consequence of one's own making or of something that is beyond one's personal control (Rotter, 1966). There are two categories of expectancy: (a) internal—persons exhibiting an internal control expectancy see themselves as the primary directors of their lives; and (b) external—persons exhibiting an external control expectancy see themselves as being susceptible to fate, chance, or luck. Locus of control will be assessed by the Nowicki-Strickland Locus of Control Scale (Appendix D).

### Self-Esteem

Self-esteem in this study is defined as the individual's global positive or negative attitude toward him/herself (Rosenberg, 1965). It will be measured by the Rosenberg Self Esteem Scale (Appendix F).

### Life Satisfaction

Satisfaction with life in this study is defined as a general feeling or attitude of positive emotional adjustment indicated by pleasure from everyday activities, generalized optimism, a positive acceptance of one's life situation, and a positive appraisal of the self (Neugarten, Havighurst, & Tobin, 1961). It will be assessed by the Life Satisfaction Index (Appendix E).

### Social Functioning

Social functioning in this study is defined as one's degree of affiliative tendency as reflected by one's ability to be comfortable in social situations, to be outgoing and friendly, to avoid ambiguity, loneliness, or feelings of alienation in social interaction, and to exhibit friendly responses and cooperation (Mehrabian, 1976). Social functioning will be assessed by the Affiliative Tendency Scale (Appendix C).

### Personal Achievement Skills (PAS)

Personal Achievement Skills is a form of group psychotherapy emphasizing social and motivational skill building. Utilizing a psychological education approach, PAS focuses on concepts to better facilitate communication skills, value clarification, problem-solving, and goal attainment. Participants practice the new skills in a group setting and through group feedback gain a better understanding of the impact of their behavior on others, and therefore learn how to modify their behavior to become more effective in real life situations (Roessler & Means, 1976). For the purposes of this study, PAS is defined as a structured, goal-

oriented group counseling approach which focuses on a series of skill-building exercises. The approach will be described more fully in Chapter III.

### STATEMENT OF THE PROBLEM

The purpose of this study was to assess the effects of a structured group counseling approach called Personal Achievement Skills (Roessler & Mean, 1976) on individuals with traumatic spinal cord injury. The following is a specific statement of the problem under study using a format of (a) research questions, (b) hypotheses, and (c) theoretical and empirical support for the hypotheses.

#### Research Question 1

Is there a positive treatment effect of Personal Achievement Skills upon the productivity, social functioning, and self-esteem of individuals with spinal cord injury?

Hypothesis 1:1. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in productive behaviors, as measured by the Activity Questionnaire, when compared to individuals with traumatic spinal cord injury who participate in a control group.

Hypothesis 1:2. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in social functioning and self-esteem, as measured by the Affiliative Tendency Scale and the Rosenberg Self-Esteem Scale, when compared to individuals with traumatic spinal cord injury who participate in a control group.

### Theoretical and Empirical Support for Research Question 1

Although no group counseling outcome studies could be found in the literature which focused directly on persons with disabilities and productivity, some did address related issues. These studies indicated that group counseling with individuals with disabilities led to increases in motivation to work (Soloman, Berzon, & Davis, 1970), vocational adjustment (Bass, 1969), job placement (Brandzel, 1963), and college achievement (Chestnut & Gilbreath, 1969). A study by Kemp and Vash (1971), mentioned earlier, found that several variables differentiated more productive from less productive persons with spinal cord injury. These variables included goal-setting tendency, social functioning, and self-esteem.

Goal attainment has been improved in individuals with disabilities with structured group approaches (Lasky, Dell Orto, & Marinelli, 1977; Roessler & Bolton, 1978). Wetzel et al. (1976) utilized a behavioral, goal-oriented group format and concluded it to have greater efficacy than other group approaches in the treatment of psychiatrically disabled veterans. Other authors have suggested that behavioral, goal-oriented group approaches help to make clients more active and informed in the process of their own treatment planning (Rose, 1977; Gottman & Leiblum, 1974).

The importance of social functioning and its relationship to psychological adjustment has been emphasized in the rehabilitation literature (Cogswell, 1968; Kahn, 1969; Kleck & DeJong, 1983; Wright, 1983) and yet few studies utilizing group counseling to improve social skills have been published. Anecdotal information in working with rehabilitation clients suggests that group approaches enhance affective expression and sharing of experiences (Bayrakal, 1975; Gust, 1970; Heller, 1970). Dunn, Van Horn, & Herman (1981) describes a group counseling research project to improve the social skills of persons with SCI and found subjects made gains on overall behavioral measures of assertiveness. Romano (1976)



and Mischel (1978) also report favorable results using assertion training with people with disabilities. Learning to interact comfortably and effectively with the non-disabled population is an important skill for individuals with disabilities. The group counseling format provides an opportunity for members to explore the issues of stigma and resocialization that are often encountered by those with disabilities (Lasky, 1978).

Safilios-Rothchild (1970) and Wright (1983) are among many authors who believe that societal devaluation of people with disabilities can lead to feelings of inadequacy and poor self-esteem. Others believe that adaptation to SCI is a long-term process because self-concept is so severely affected by spinal cord injury (Teal & Athelstan, 1975). Siller (1969) maintains that rehabilitation should place more emphasis on assisting the individual with an SCI to reconstitute a positive self-image. Group counseling studies focusing on promoting self-esteem in individuals with SCI are rare in the rehabilitation literature. Mann, Goodfrey, & Dowd (1973), and Maki, Wineograd, & Hinkle (1976) report attempting such work; however, they fail to provide any data to assess outcomes. Other authors, however, have reported significant gains in self-esteem utilizing group approaches. These studies included work with children with learning disabilities (Omizo, 1987), adults with visual impairments (Roessler, 1978), and non-disabled individuals with low self-esteem and related emotional disturbances (Gauthier et al., 1983; Warren, McLellarn, & Ponzoha, 1988). In addition, Bednar and Lewis (1971), in their review of group psychotherapy research, concluded that a group intervention can have a positive impact on self-acceptance as well as social adjustment.

### Research Question 2

Is there a positive treatment effect of Personal Achievement Skills training on the control expectancy and satisfaction with life of individuals with traumatic spinal cord injury?

Hypothesis 2:1. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in control expectancy and satisfaction with life as measured by the Nowicki-Strickland Internal External Scale and the Life Satisfaction Index, when compared to individuals with traumatic spinal cord injury in a control group.

### Theoretical and Empirical Support for Research Question 2

Locus of control (Rotter, 1966) is an important concept in the study of adjustment to SCI. This construct is relevant to individuals with SCI because there is evidence to suggest that it affects both emotional and behavioral adjustment. Dinardo (1971) reports that persons with SCI with an internal locus of control were less depressed than externals, and internals had better self-concepts. Ferrington (1986) found similar results with regard to control expectancy and SCI depression and Shadish, Hickman, & Arrick (1981) report more SCI emotional distress in externals as compared to internals. Behaviorally, following discharge from the rehabilitation center, spinally injured individuals with an internal locus of control more productive (Crisp, 1984; Swenson, 1976), spent less time in the hospital, were more involved in work activities at home, in paid employment, in educational pursuits, and in community work (Swenson, 1976).

Empirical evidence exists which support the position that control expectancy can be changed through psychotherapeutic intervention. Dua (1970) theorized that behavioral methods designed to create new strategies for dealing with problem situations would induce attitudinal changes in externally oriented subjects. Using an action-oriented, behavioral group approach, he found significant decreases in external orientation when compared to an untreated control group. Similarly, Lesyk (1968) found that hospitalized schizophrenic patients showed a significant increase in internal orientation as a result of an intensive

operant conditioning program. Using a different type of intervention, Knox (1973) found that transactional analysis groups significantly changed the external orientation of graduate students.

Life satisfaction is another important concept in the study of psychological adaptation to SCI. Most researchers agree that it should be a major component of any comprehensive conception of *adjustment* or *mental health* (Sells, 1959). Studies indicate substantial relationships between life satisfaction and health (Berkman, 1971), amount of activity (Bradburn & Caplovitz, 1965), and self-esteem (Korman, 1969). Among individuals with disabilities, life satisfaction has been positively linked with high levels of achievement (Shontz, 1962) and acceptance of self and of disability (Litman, 1961). Empirical evidence also indicates that group counseling with people with disabilities can have positive effects on life satisfaction (Bryan, 1974; Caldwell, Leveque, & Lane, 1974).

### SIGNIFICANCE OF STUDY

The present research evaluated the effects of a structured, behavioral group counseling model, Personal Achievement Skills, upon the productivity and psychological and social functioning of persons with traumatic SCI. In order for rehabilitation efforts to be comprehensive and effective, they should include a significant emphasis on the psychosocial aspects of spinal cord injury. These efforts should also address the behavioral consequences of SCI, such as diminished productivity and decreased activity level. It has been hypothesized that PAS would have a positive effect on these behavioral variables as well as on social functioning, self-esteem, locus of control, and life satisfaction.

The desirability of a structured group counseling model is based on several important factors. First of all, PAS is a systematic approach with a prescribed set of procedures and

activities. For some counselors who have had limited group experience, this packaged format allows them to follow specific objectives. In addition, because of this structured framework, the approach can be replicated and used in a variety of settings for research purposes. This is particularly important because with past studies investigators failed to outline their group techniques or specific interventions, hence a problem for future researchers who wish to replicate the procedures.

Although group outcome studies with individuals with disabilities is lacking in the rehabilitation research, those that have been done show the most favorable results utilizing a structured goal-oriented approach similar to Personal Achievement Skills. Subjects were shown to have made significant gains in goal attainment, self-esteem, and social functioning, all of which differentiated more productive from less productive persons with SCI in a prior study. Also, although the SCI population is heterogenous, it is thought by many researchers that they may respond best to a concrete, reality-oriented process wherein there is an opportunity to identify and test out certain desired behaviors. This process clearly reflects the PAS orientation which includes value clarification, goal identification, and goal follow-through.

A third important factor which lends support for the significance of this study involves the basic benefits of group counseling for people with disabilities. Besides being time and cost-effective, group work allows individuals with disabilities to share similar common concerns such as stigma and discrimination. In addition, group counseling has demonstrated the ability to sensitize leaders to the thoughts, feelings, and problems of their clients and, in so doing, reveals insights into their psychosocial functioning and potential. As was mentioned earlier, many researchers believe group counseling with individuals with

disabilities is a valuable tool in rehabilitation and yet few outcomes studies have been published.

The present study attempted to add to the research literature utilizing a promising group approach which possesses conceptual merit and proven efficacy based on past investigations. With its emphasis on social skills, motivation, and goal achievement, PAS would appear to have potential for improving productivity, and in so doing, may also serve to enhance the disability adjustment process.

### LIMITATIONS OF THE STUDY

The research design employed by the present study was a randomized, pretest-posttest, control group design. The main strength of this design is the initial randomization which assures statistical equivalence between the groups before experimentation. The main concern in using the design is external validity. There may be an interaction between the pretest and the subjects that can change or sensitize subjects in certain ways (Ary, Jacobs, & Razavieh, 1985).

Although both experimental and control groups take the pretest and may experience the effect, it can cause the experimental subjects to respond to the treatment in a particular way because of their increased sensitivity. This interaction effect may be dependent on the type of pretests used. The Activity Questionnaire used in the present study is a behavioral measure of productivity which may sensitize subjects to the desirability of certain behaviors. Solomon (1949) recommends the use of an additional unpretested group to counter this effect. However, the limited availability of subjects for the present study made this addition impossible.

The interaction effect creates a problem with generalizability as the experimental results may only be generalizable to pretested groups and not to unpretested ones. While this sensitizing effect is a threat to external validity, Cambell and Stanley (1963) report "published research results show either no effect or an interaction effect of a dampening order" (p. 18). Hence, although the results will be interpreted with caution, this interaction effect does not appear to be a major limitation of the study.

A factor which helps to decrease the threat to external validity was the method by which subjects were recruited. Subjects volunteered to be involved in the study based on flyers and notices distributed by local disability agencies, colleges and schools, rehabilitation centers, the Veterans Administration, and State Vocational Rehabilitation and Senior and Disability Services. Since subjects were voluntarily recruited from a number of different sources, they may be representative of the SCI population in general. There is no evidence to suggest that the subject population does not represent a normal distribution.

## CHAPTER II

### REVIEW OF THE LITERATURE

This review will be organized along the following subject areas; (a) psychosocial adjustment to spinal cord injury; (b) productivity and spinal cord injury; (c) the efficacy of group counseling approaches to facilitate psychological and social functioning; (d) the use of group counseling and psychotherapy to facilitate psychosocial adjustment in persons with disabilities; (e) the use of structured interventions to facilitate the psychosocial adjustment in persons with disabilities; and (f) the personal achievement skills group approach.

#### PSYCHOSOCIAL ADJUSTMENT TO SPINAL CORD INJURY

Many experts in the rehabilitation field have emphasized the importance of psychological and social variables in adjustment to spinal cord injury. It is believed that deficits in these areas could significantly hinder successful rehabilitation to the injury (Burnham & Werner, 1978; Dunn, 1977; Krause & Crewe, 1987; Lasky, Dell Orto, & Marinelli, 1977; Siller, 1969; Trieschmann, 1988; Wright, 1983). In this section of the review, a number of the theoretical formulations regarding stages of adjustment, emotional reactions, and social factors will be presented first, followed by a look at empirical studies which emphasize adjustment factors based on mainstream psychological theories.

Rehabilitation literature on psychosocial adjustment to SCI has been dominated for several decades by the theory of stages of adjustment. This progression of reactions process uses similar terminology to that of Kubler-Ross (1969), who described patients who were

approaching death. The theories postulate that the individual with SCI moves from the initial shock of injury through defensive reaction to acknowledgement and adaptation to the injury. The final stage generally involves some form of stability or resolution, while earlier stages are characterized by heightened emotionality and distress.

Siller (1969) describes this progression in terms of two overall phases which include anxiety and depression, followed by compensation and acceptance of loss. In phase one, anxiety, depression, denial, grief, and mourning are most evident. Also in phase one, the newly injured individual may develop passive-aggressive behaviors or become excessively psychologically dependent on others. In phase two, however, the person attempts to reformulate himself or herself and rebuild self-image, despite discontinuities with pre-injury identity. Siller believes that these stages and accompanying emotions must be experienced or the individual may be in denial or avoiding the necessity of proper mourning.

Kerr and Thompson (1972) concur with Siller (1969) in that they believe that these stages are necessary for each individual to go through in order to achieve a good mental adjustment. They postulate three stages in the adjustment process. The first stage consists of mental shock, fear, and anxiety, and is characterized by uncertainty about the future and doubts and worries about the prognosis. The second stage, grief and mourning, involves feelings of despair regarding the individual's perceived loss of physical ability, sexual functioning, and societal identity. The final stage, aggression or rebellion, entails the patient's attempts to diminish control by others and reestablish adult relationships.

Hohman (1975) believes that the average individual experiences a sequence of predominant feelings and attitudes as he attempts to cope with severe loss. Similarly, persons confronted with SCI will experience such feelings which Hohman describes as "a normal reaction to an abnormal situation" (p. 81). The first reaction is denial, which is



viewed as useful as it protects the ego from the harsh reality of the often hopeless diagnosis. As the mechanisms of denial are relinquished, this ushers in depression, which is generally characterized by withdrawal and internalized hostility. The hostility then becomes externalized as the individual attempts to blame others for his predicament. As the individual gains independence from rehabilitation efforts, the final stage involves a reaction against dependence, wherein attention is directed toward self-sufficiency. After these reactions have been worked through, Hohman believes there is a reconstitution of the individual's pre-trauma personality.

Vash (1981) proposed an adjustment model that involves three states:

1. [R]ecognition of the facts, wherein the individual admits the extent and implications of the disability, but detests it[;]
2. acceptance of the implications, when the changes caused by the disability are integrated into the lifestyle and viewed simply as an inconvenience[;]
3. embracing of the experience, wherein disability is viewed, along with all other life experiences, as an opportunity for learning or a gift that is positively valued (p. 128).

This last stage, wherein the individual views the disability as a learning opportunity, is a unique feature of Vash's model. It may be that only a few individuals can embrace disablement or find meaning in the trauma; however, those that can will experience a better overall adjustment to their disability (Vash, 1981).

Other theorists (Cull & Hardy, 1977; Gunther, 1969) propose a psychoanalytic framework of sequential reaction following SCI. In this model, traditional defense mechanisms such as denial, repression, regression, reaction formation, and compensation play major roles. Weller and Miller (1977) also describe a progressive emotional sequence to SCI trauma but note that there may be overlapping or temporary regression to a previous phase

of the process. They suggest that one to two years post-injury may be the average length of time required for adaptation.

Trieschmann (1988) asserts that these theories of stages of adjustment are simply the clinical impressions of a particular author. She adds that empirical evidence is not presented in such articles to demonstrate reliably and validly the existence of stages of adjustment. Crewe and Krause (1987) disagree with Trieschmann with regard to the value of stage theories. They suggest that patients, professionals, and families may find them helpful as they offer a somewhat orderly and predictable process along with the promise of change from the initial traumatic phases. Crewe and Krause caution, however, that problems can occur from rigidly applying these theories and attempting to make the individual fit the theory instead of using the theory as a tool for understanding the overall adjustment process.

In the stage theories discussed thus far, depression is viewed as an inevitable reaction following spinal cord injury. Siller (1969) maintained that depression is always present and is either clearly observable or being denied.

Clinically, the reactions of anxiety and depression are the foremost reactions to traumatization and are usually observed readily. On occasion, these affects are displaced, delayed, or otherwise disguised so that the superficial clinical picture suggests their absence. . . . A person should be depressed because something significant has happened, and not to respond as such is denial (p. 292).

Other authors (Nemiah, 1957; Seymour, 1955; Weiss & Bors, 1948; Wittkower, Gingras, Mergler, Wigdor, & Lepine, 1954) echoed Siller's (1969) belief that depression is a universal or near-universal response to SCI. Nagler (1950) and Nemiah (1951) writing from clinical experience, suggested that persons with SCI should go through a period of depression in order to work through grief over loss. Later Nemiah (1957) stated that it is

often necessary to confront the patient with "the reality of the situation and force him into a period of depression while he works through his acceptance of his loss" (p. 146).

However, Dinardo (1971) tested the thesis that depression is necessary for a successful adjustment to SCI. His findings suggested that individuals whose emotional response styles predispose them to depression will have the greatest difficulty in adjusting to SCI. He studied 26 persons with SCI and evaluated them based on locus of control expectancy and their tendency to be a repressor or sensitizer in emotional situations. Repressors were characterized by a tendency to avoid openly expressing distressing thoughts or feelings while sensitizers tended to more often discuss emotions which bothered or concerned them. He found that those who were depressed had an external locus of control and poor self-concepts. In addition, the emotional sensitizers showed a poorer adjustment than the repressors. He concluded that absence of depression favored good adjustment and that there was no evidence to suggest that a lack of depression was equated with denial of disability.

Lawson (1976) continued this line of research using multiple levels of measurement of depression during an entire rehabilitation period. Ten quadriplegic patients were studied in an effort to determine what significant events in the rehabilitation process could be related to depressive reactions. Depression was measured by four different methods, including self-report, behavioral measures, ratings by hospital personnel, and an endocrine measure. The results suggested that the patients who were less depressed did better during rehabilitation as well as after returning to their home environment. These studies by Lawson and Dinardo (1971) contradict earlier assertions by Gunther (1969), Nagler (1950), and Nemiah (1957) that hospital staff should accept or even encourage depressive affect as a normal reaction in the adjustment process.

Other studies have also challenged the presumed inevitability of depressive reactions made by these earlier authors. Using standardized self-report measures and detailed clinical interviews, these later investigations found much lower levels of depression in persons with SCI. Cook (1979) administered the State-Trait Anxiety Inventory (STAI) and an abbreviated form of the MMPI to 118 persons with SCI and found all of those tested to exhibit profiles within the normal range. Thompson and Dexter (1980) report similar normal range results with the MMPI and an SCI population; however, persons with quadriplegia expressed more feelings of alienation from nondisabled peer and more bodily concern than those with paraplegia.

These studies on SCI depression seem to obtain similar results regardless of how depression is measured. Howell, Fullerton, Harvey, and Klein (1981) combined self-report measures with a detailed clinical interview. Twenty-two newly cord-injured individuals were administered the SADs (Schedule for Affective Disorders), the RDC (Research Diagnostic Criteria and Schizophrenia), and the Beck Depression Inventory by a psychiatrist. Results indicated that none of the patients suffered a major depressive disorder according to the RDC, and only 5 of the 22 experienced minor depressive disorders. Other investigators have used differing measures of depression, including DSM-III criteria (Judd & Burrow, 1986) and the Depression Adjective Checklist (Dijkers & Cushman, 1986), and have also reported a low incidence of depression in SCI subjects. These studies suggest that depression is not a universal reaction to spinal injury and that it may occur in only a minor percentage of those newly injured.

Researchers using differing definitions and measures of depression, as well as hospital staff appraisals, have generally complicated the issue of emotional reaction to SCI. Trieschmann (1988) believes grief is a more appropriate description of the affective response

to SCI than depression. She cites the work of Kolb (1973) who believes that classic endogenous depression is not situational and has its origins in unconscious guilt resulting from interpersonal issues. In this definition, grief is differentiated from depression as it involves sadness and withdrawal due to a loss of something or someone important. This distinction reflects Wright's (1983) concept of a period of mourning in reaction to sudden disability. She believes this period of mourning entails a preoccupation with loss and may include intermittent sadness and other dysphoric emotions, such as worry, anger, and regret. Based on the studies citing an absence of depressive affect, this concept of grief or mourning does seem to more accurately reflect the emotional reaction to SCI.

Thus far, the discussion has focused mainly upon the psychological issues which accompany reaction to SCI. Other authors have strongly emphasized the importance of social factors in adjustment to spinal injury (Caywood, 1974; Cogswell, 1968; Dunn, 1977; Mueller, 1962), as well as to other disabling conditions (Albrecht & Higgins, 1977; Kahn, 1969; Mischel, 1978; Romano, 1976; Safilios-Rothchild, 1970; Sawyer & Baker, 1978; Siller, Chipman, Ferguson, & Vann, 1967; Wright, 1983). The social difficulties most often mentioned by these researchers include stigma, devaluation, social role changes, and strained social interaction.

Siller et al. (1967) analyzed the basic themes in social interaction between individuals with disabilities and the nondisabled. They concluded that the majority of reactions were negative. Seven stable factors were cited as being indicative of these attitudinal problems.

They include:

1. *[I]nteraction strain*, anxiety resulting from uncertainty about what to say or how to behave in the presence of a disabled individual[;]
2. *rejection of intimacy*, reluctance to be involved in close, personal relationships, particularly marriage, with a person who has a disability[;]

3. *generalized rejection*, reflecting the belief that people with severe disabilities should be segregated from the rest of society[;]
4. *authoritarian virtuousness*, a type of patronizing benevolence[;]
5. *inferred emotional consequences*, the idea that a person who has a physical disability is likely to have been emotionally warped by the experience as well[;]
6. *distressed identification*, sadness and pity for the person with a disability[;]
7. *imputed functional limitations*, assumptions that there are many things a person is unable to do because of the disability (Siller et al., 1967, p. 34).

These attitudes may be both overt and subtle but, in general, the person with a disability is viewed as strange, different, deviant, and inferior, which results in fewer interpersonal relationships, poor employment opportunities, and social isolation.

Kleck and his colleagues (1966, 1968) obtained similar themes in the results of a series of studies on the effects of face-to-face interaction between the nondisabled and persons with disabilities. Nondisabled subjects were physically nervous and inhibited, shaded their opinions to be more like those of the disabled person, had an unusually positive impression of the individual with a disability, and terminated the interaction sooner than they would have with another nondisabled person. These findings are consistent with Goffman's (1963) hypotheses about stigmatized persons. According to Goffman, nondisabled people tend to avoid interaction with disabled people as such contact is anxiety-producing and results in constricted and inhibited behavior. In addition, Goffman believes that this interpersonal anxiety also causes the nondisabled person to change their opinions to be more consistent with what they think the disabled persons believe.

Although these studies focused on individuals with disabilities in general, their findings reflect research done with persons with SCI. A study by Cogswell (1968) illustrates the negative impact that a disability can have on social functioning. She studied a group of

35 persons with paraplegia who were out of a rehabilitation setting and back into the community. In comparison to their pre-injury life, all showed a marked reduction in (a) number of social contacts with others in the community; (b) number of social roles they played, and (c) frequency in entering community settings. In addition, only 6 of the 26 in the study resumed the role of wage earner by returning to gainful employment.

Dunn (1977) developed a social discomfort scale in order to assess what types of social situations are most anxiety-producing for individuals with SCI. From the 20-item inventory, the situations that produced most discomfort included:

1. Having an accidental bowel movement.
2. Being at a party and discovering that the external catheter has popped.
3. Falling out of the wheelchair.
4. Dealing with people who do not move out of the way.
5. Putting the wheelchair in the car and dealing with a passerby who insists on helping.
6. Being at a bar when a drunk comes up and starts telling you of your bravery.
7. Having spasms in public.
8. Getting on an elevator and having a young girl pat you on the head and say, "Poor dear."

The results of this study indicated that individuals 35 years of age or older admitted to more discomfort than did persons less than 35 years of age. There were no differences with regard to type of injury (paraplegic or quadriplegic) or length of time since injury.

These studies suggest that social functioning can be significantly impaired with the onset of SCI. Kahn (1969) believes these deficits are initially created in the hospital environment. He suggests that medical care is designed to gain control of the hospitalized

individual through infantilization and depersonalization which results in a regression in social functioning. In describing his own experience of being in the hospital with a new spinal cord injury, Caywood (1974) recognized people around him feeling pity, sadness, confusion, and guilt. He came to realize that he had to assume the responsibility for putting those around him at ease. Once out of rehabilitation and into the community, Mueller (1962) believes the person with SCI may face attitudes ranging from open ostracism to maudlin pampering. Mueller adds that even if these attitudes are not overt, the spinally injured individual does not feel wholeheartedly accepted by others. The impressions of these authors, as well as the studies mentioned thus far, suggest the need for rehabilitation facilities to teach persons with SCI resocialization and stigma management skills so that they can learn to relate successfully with nondisabled people in the community.

In summary, the literature suggests that psychological and social difficulties accompany adjustment to SCI. The stage theory of emotional reaction can be a useful framework for understanding adjustment; however, the rehabilitation professional must recognize the potential for wide variations in individual response. The incidence of depression, once thought to occur in the majority of the newly injured, has been shown to have a less common occurrence rate. In addition, the available research suggests that persons with SCI who are less depressed during initial rehabilitation seem to have a better overall long-term adjustment to their disability. Socially, this population may be viewed as deviant and inferior, resulting in fewer interpersonal relationships and a tendency toward isolation. Productivity is another important variable in adjustment to SCI and it will be explored in the following section.



## PSYCHOSOCIAL ADJUSTMENT AND PRODUCTIVITY

Historically, most of the rehabilitation literature focusing on productivity has emphasized vocational success as the major criteria (Ayer, Thoreson, & Butler, 1966; DeMann, 1963; Dvonch et al., 1965; Geisler, Jousse, & Wynne-Jones, 1966; Ehrle, 1964). With a vocational emphasis on productivity persons with SCI have fared very poorly. The employment rate for this population rarely surpasses 50 percent, and is often much lower (DeVivo, Rutt, Stover, & Fine, 1987). More recently, rehabilitation researchers have attempted to define productivity in a broader context (Athelstan & Crewe, 1974; Kemp & Vash, 1971; Krause, 1990; Trieschmann, 1988). Their definition includes not only vocational success but also educational pursuits, avocational interests, volunteer work, and family responsibilities. In defining productivity with these additional dimensions, a new criteria for psychosocial adjustment has emerged. The purpose of this section of the review is to discuss studies of productivity as they relate to SCI adjustment.

One of the first studies to predict a broader criterion of productivity was by Kemp and Vash (1971). They defined productivity as activities of a constructive nature and included employment status, avocational pursuits, group participation, and family responsibilities. Their investigation focused on how ratings of productivity related to social, psychological, and ability factors. Their sample included 50 persons with SCI who were at least five years post-injury. Each subject was interviewed by a psychologist and assigned to one of five groups based upon level of productivity which was indicated by their degree of involvement in vocational, educational, family, leisure, and group activities. All of the persons in the most productive group were engaged in full-time employment, hobbies, and other avocational activities. In addition, approximately half of the 11 subjects in the most productive group belonged to formal organizations, and 9 reported special responsibilities

in the home. Degree of productivity ranged from this most productive group to levels of activity in a least productive group. The least productive group were all unemployed, none belonged to formal organizations, and only one reported special responsibilities in the home.

The major analysis was a multiple regression which tested the relationship between 15 independent variables and the dependent variable of productivity. Results indicated that four factors contributed most significantly to the prediction of productivity: (a) the number and types of goals expressed by the person, (b) what the person considered to be their greatest loss as a result of the disability, (c) a measure of creative thinking, and (d) the degree of interpersonal support received. The most productive group expressed more goals in vocational, social, and family areas, and coped with emotional crises better than the group defined as less productive. The less productive subjects focused their goals on regaining bodily functions and the use of their limbs, acquiring materialistic items, and pursuing avocational interests.

A personality assessment, the California Psychological Inventory, also demonstrated consistent differences between the two groups. The more productive persons were characterized by high self-esteem and assurance, and by effective social and intellectual functioning. Those in the less productive group were characterized by poor social functioning, and were anxious and pessimistic. This study suggested a divergence from defining productivity strictly as a vocational construct and expanded the definition to include a broader psychosocial component.

Athelstan and Crewe (1974) conducted a study involving 301 individuals with SCI who were at least two years post-injury. A detailed questionnaire was mailed to subjects covering areas of employment, family and social activities, educational pursuits, living arrangements, and a generalized assessment of adjustment. Subjects were divided into three

groups according to productivity: inactive, moderately active, and active. Inactive persons comprised one-third of the sample and reported little involvement with productive activities or avocational interests, little interaction with people, and a great deal of time watching television or listening to the radio. Moderately active individuals comprised one-fourth of the sample, and the remainder were judged active. The active persons reported receiving visitors as well as getting out of their homes at least once a week, and participating in several kinds of activities, usually including involvement in an organization. Additional results indicated that 72 percent of those classified as active and moderately active reported satisfaction with their general medical condition, and those who were employed reported more satisfaction with their living arrangements and sex lives.

In another study on activity level, MacDonald, Nielson, and Cameron (1984) examined the relationship between degree of depression and the activity patterns of 53 individuals with SCI. Their findings indicated that mildly depressed persons were considerably less active socially and in overall frequency in comparison to nondepressed individuals. Nondepressed SCI subjects were more involved in social, vocational, personal, and travel activities. These studies suggest a link between activity level and emotional adjustment for persons with SCI. The alternatives of social withdrawal, inactivity, and disinterest are thought to be symptoms of depression and psychologically unhealthy by most rehabilitation professionals (Hughes, 1960).

DeJong, Branch, and Corcoran (1984) examined how independent living variables would influence the productivity level of persons with SCI. The outcome measures of productivity (employment, education, leisure activities, homemaking, organizational involvement) were examined in relation to a series of independent variables, including demographic data, environmental barriers, degree of unmet equipment needs, and factors

related to the disability itself. Six variables accounted for the majority of the variance in the productivity outcomes. They included fewer transportation barriers, fewer financial disincentives, more education, more independence in functional living activities, and younger age. The authors felt their sample was comparable in descriptive features to the Regional SCI System's sample and, therefore, could be reasonably generalized to the overall SCI population. This study demonstrated that certain environment variables could present barriers to the potential productivity of persons with SCI.

Krause and Crewe (1987) conducted a study that suggested that an individual's psychosocial activity level may influence longevity. They studied a group of 256 persons with traumatic SCI over an 11-year period. Initially, psychologists rated each individual on their psychosocial, vocational, and medical adjustment to spinal cord injury. Eleven years later, these individuals were recontacted and it was found that 179 were alive and 46 were known to have died. The original evaluation of adjustment was compared for the two groups, and it was found that the survivors had been rated as having better psychosocial and vocational adjustment, had been employed or were attending school, had had great sitting tolerance, and had been more socially active. The results did not indicate differences between survivors and nonsurvivors based on medical histories, such as frequency and duration of hospitalizations and physicians visits. The authors of the study concluded that "the importance of psychosocial rehabilitation needs to be underscored and that it should be even more closely integrated with medical services" (Krause & Crewe, 1987, p. 213).

In a subsequent study, Krause (1990) continued his work on SCI adjustment variables by examining several aspects of adjustment in relation to different levels of productivity. He surveyed 344 individuals with SCI to elicit information on vocational status, activity level, and psychological adjustment. The sample was divided into three groups: (a) persons who were

gainfully employed (45%); (b) persons who were involved in unpaid productive activities such as school, volunteer work, or homemaking (15%); and (c) those who were not engaged in any productive activities (41%). The results suggested that employment is strongly related to overall adjustment. Persons who were employed were more active, had completed more years of school, and had fewer medical problems. In addition, on the psychological measure, they perceived themselves as having fewer problems and being more satisfied with their lives. Involvement in unpaid productive activities also appeared to be related to overall adjustment, although these individuals did not attain the same overall adjustment level as those who were gainfully employed. Persons who were not involved in any productive activities were found to be inferior in all of the adjustment areas studied. The studies reviewed in this section suggest a multidimensional model of adjustment following SCI. Increasingly, researchers are emphasizing the importance of activity level and non-vocational goals as relevant criteria for what constitutes adjustment. In addition, new definitions of productivity include not only vocational success but also unpaid productive activities, such as educational pursuits, volunteer work, and family responsibilities. Rehabilitation professionals should assist clients to overcome barriers which prevent involvement in self-directed, productive activities. Group counseling and psychotherapy are services which may be employed to overcome such barriers. The efficacy of these approaches will be explored in the following section.

#### THE EFFICACY OF GROUP COUNSELING APPROACHES TO FACILITATE PSYCHOLOGICAL AND SOCIAL FUNCTIONING

The purpose of this section of the review is to provide the reader with a brief overview of group psychotherapy outcome research. The discussion will be limited to specific process and outcome variables which have relevance to the present study. As mentioned in

Chapter I, the majority of studies regarding the effectiveness of group counseling with individuals with disabilities is anecdotal in nature and rarely is empirical evidence provided in order to assess outcomes. However, there are many studies which have investigated the psychological and social effects of group approaches in general. These studies focus primarily on either outcome or process variables and the available literature is quite substantial. Since it is beyond the scope of this review to examine all of these studies, several comprehensive reviews will be summarized (Kaul & Bednar, 1986; Parloff & Dies, 1977; Gundlach, 1967; Pattison, 1965; Grunebaum, 1975).

Kaul and Bednar (1986) performed an extensive review of group psychotherapy studies between 1977 and 1983. They concluded that group treatments have been associated with client improvements in a variety of settings and situations. More specifically, their outcome research section indicated client improvement on measures of depression, self-control, anxiety, assertiveness, rationality, and interpersonal functioning. Although Kaul and Bednar report these favorable results, they caution that our knowledge of what constitutes an effective treatment variable is not expanding. They add that variables relevant to group treatments are inadequately defined, measured, and operationalized, and consequently improved conceptual models of group treatment remain unidentified. Despite these problems, the authors feel that certain process studies represent a promising beginning toward isolating important group variables. Process variables which had a positive correlation with outcome results included subject pretraining, structured activities, and positive feedback.

The findings of Kaul and Bednar's (1986) review suggest important implications for the present research study. The importance of subject pretraining is emphasized in the Personal Achievement Skills (PAS) (Roessler & Means, 1976) group approach. The

program's goals, expectations, and overall framework is clearly explained in the first session. In addition, participants in the first session take part in an exercise entitled "Program Beliefs" wherein the PAS approach and philosophy is explained and discussed through the use of a descriptive questionnaire. Another important process variable discussed by Kaul and Bednar and included in the PAS program involves the use of structured activities. Kaul and Bednar review a study by Ware and Barr (1977) in which structured groups showed more openness, less defensiveness, a higher degree of social desirability, and higher feelings of personal worth in comparison to unstructured groups.

Kaul and Bednar (1986) add that favorable outcome results were not uniform across studies. In some investigations, they found group therapy to be more effective than individual psychotherapy or drug treatment, and yet in other studies these results would disappear. The authors attribute these differences to the history and complexity of psychotherapy research; however, they are particularly distressed by "the absence of investigations that could help increase our knowledge as to why and how these differences occur" (Kaul and Bednar, 1986, p. 680).

Another comprehensive review of group psychotherapy research was conducted by Parloff and Dies (1977) and included studies between 1966 and 1975. Their outcome review included four major classes of patients: (a) schizophrenics, (b) psychoneurotics, (c) adult or juvenile offenders, and (d) addicts. The authors only included studies that were methodologically sound and involved subjects that were drawn from generally accepted clinical categories. Nearly half of the outcome studies they reviewed involved group work with schizophrenics. The findings with this population were mixed. Focused interventions aimed at producing specific effects and combination treatments (group therapy along with medication, videotape feedback, or social interaction) were found to be most effective.

Unstructured group psychotherapy alone did not appear to improve target areas such as vocational adjustment, diminished psychopathology, or enhanced social effectiveness. The authors were unable to draw any definitive conclusions regarding psychoneurotics and addicts due to a scarcity of group outcome research. With adult and juvenile offenders, the findings were mixed and unimpressive with the exception of a study showing promising results with adult sex offenders (Peters, Pedigro, Steg, & McKenna, 1968). Parloff and Dies concluded that group approaches in general showed very modest results. They added, however, that valid conclusions were difficult to reach due to the numerous methodological problems in most of the studies.

In the outcome review study 10 years earlier, Gundlach (1967) reached conclusions similar to those of Parloff and Dies (1977). With the exception of psychoneurotics, Gundlach focused his group psychotherapy review on the same clinical populations: schizophrenics, offenders, and addicts. His findings with schizophrenics also suggested that drug treatment combined with group psychotherapy was most effective. In other studies with schizophrenics, the results were contradictory and mixed, as were investigations with offenders and addict populations. In a review just prior to Gundlach's, Pattison (1965) examined 90 studies of group psychotherapy and reported contradictory findings with regard to patient improvement. Like Parloff and Dies, he cited numerous methodological problems with the studies which made valid conclusions difficult to draw. To help prevent these difficulties, Pattison suggested future group researchers develop systematic continua in three areas: (a) for different kinds of patients, (b) for different treatment goals, and (c) for different treatment techniques. He believes that because there is not a simple universal patient, group therapy researchers should systematically categorize patients according to level of functioning. Concurrently, there would also be different levels of treatment goals,



treatment techniques, and measures of outcome. Since 12 years after these recommendations, Parloff and Dies (1977) noted similar methodological difficulties to those of Gundlach (1967) and Pattison (1965), it seems unlikely that researchers noted Pattison's suggestions.

Grunebaum (1975) performed an extensive review of group psychotherapy research, which was intended to assist the clinician. He omitted problems of research design and attempted to structure his findings in a form that would be clinically relevant and informative. Grunebaum outlined his review in accordance with four factors related to therapeutic change: (a) the client, (b) the therapist, (c) the quality of the group experience, and (d) the outcome variables. Clients who were most likely to show improvement from group therapy were characterized by internal distress, anxiety, dissatisfaction with self, and depression. Effective therapists were characterized by nonpossessive warmth, genuineness, and an ability to convey caring and attribute meaning in the group experience. In addition, relevant to the present study, group leaders enhanced group cohesion and involvement through rules, boundaries, and peer control. This condition reflects the PAS approach of structured interaction which helps to involve all participants and reduce individual member isolation. In terms of the quality of the group experience, the interaction between client and therapist was improved if they liked each other and shared similar cognitive styles. Grunebaum concluded by stating that there is clear outcome evidence to demonstrate that group psychotherapy is effective and can lead to both behavioral and personality changes in a variety of patients.

In summary, the literature on group psychotherapy outcome research yields mostly mixed and contradictory findings. In some studies, group psychotherapy was found to have superior efficacy to individual psychotherapy and drug treatment, and yet in other studies,

these results would disappear. Researchers also found numerous methodological problems which made valid conclusions difficult to draw (Gundlach, 1967; Kaul & Bednar, 1986; Parloff & Dies, 1977; Pattison, 1965). They suggested more systematic and precise methods of defining and measuring the variables in question (Kaul and Bednar, 1986; Pattison, 1965). Several group psychotherapy process variables were found to be consistently effective in all of the reviews. These variables included subject pertaining, structured interventions, and group psychotherapy in combination with other treatment modalities. Overall, the findings suggest that group psychotherapy may be effective with some populations. Group approaches with individuals with SCI and other disabling conditions will be examined in the following section.

#### THE USE OF GROUP COUNSELING AND PSYCHOTHERAPY TO FACILITATE PSYCHOSOCIAL ADJUSTMENT IN PERSONS WITH DISABILITIES

As noted in the last section of this review, there are few empirical studies which focus on the use of group counseling with individuals with disabilities. Most of the articles in the medical, psychological, or rehabilitation literature are anecdotal in nature or are intended as descriptive proposals for others to test empirically. Some of these articles were reported in Chapter I and will not be reexamined here. The reader is referred to these accounts for additional information (Bass, 1969; Cimperman & Dunn, 1974; Maki, Wineograd, & Hinkle, 1976; Manley, 1973; Mann, Godfrey, & Dowd, 1973; Salhoot, 1974). Although these articles do not present empirical evidence, they do add to our general knowledge and provide future directions for research. Therefore, in this section of the review, additional anecdotal information will be examined followed by a review of existing empirical studies.

In the 1970s, two texts were published which focused on group counseling and rehabilitation services with special populations (Hardy & Cull, 1975; Seligman, 1977). These publications outlined group and individual counseling strategies with a variety of rehabilitation clients. Seligman (1977) and his contributors describe group interventions with such diverse populations as prison inmates, drug abusers, and alcoholics, as well as persons with stroke, visual impairments, terminal illness, developmental disabilities, and physical handicaps. The premise of the book is that since varying clientele are segregated into different diagnostic categories, they also may necessitate special considerations, different leadership skills, and specialized approaches to group counseling. For example, persons with developmental disabilities may require shorter group sessions as their attention span may be limited, or, for individuals with physical disabilities, accessibility and physical comfort may become important issues. Cull and Hardy (1975) focus on the use of group counseling in rehabilitation settings. They discuss client characteristics, group leadership, methods, and the goals of group counseling in a general sense as well as with rehabilitation setting applications. Both publications contain valuable information for assisting clients with disabilities to improve their psychological, social, and vocational adjustment.

Anecdotal studies in the medical and rehabilitation literature have focused on a wide variety of disability populations and group therapy techniques. Schein and Naiman (1971) believe that group methods can be used productively with deaf persons. Group size is generally limited to four or five individuals as larger groups tend to amplify communication difficulties and make sessions chaotic and unmanageable. Schein and Naiman maintain that groups which emphasize co-therapy and time limitations tend to be most effective. A number of authors have suggested that this kind of group work can be helpful in the prevention and remediation of emotional difficulties with deaf adolescents (Sarlin, 1967;

Sarlin & Altshuler, 1968). Lipp and Malone (1976) describe the use of group counseling with vascular surgery amputees. The goals of the group include (a) assisting patients to deal with feelings of helplessness, isolation, and depression; (b) facilitating staff awareness of the psychosocial factors in each patient's rehabilitation; and (c) mobilizing patients coping skills and motivating them to participate in rehabilitation efforts. No formal data on outcome was reported; however, the authors believe the program helped participants to ventilate emotionally, learn new social skills, and exchange technical information regarding their prostheses and general medical condition.

Butcher, Smith, and Gillespie (1984) reported on the use of short-term group counseling for stroke patients in a rehabilitation center in the United Kingdom. Three groups of eight patients who had suffered cerebro-vascular accidents participated in six group sessions run by a psychiatrist and social worker. Discussions in the groups focused on a wide range of topics, although common themes involved physical and psychological functioning. Physical concerns included walking and mobility options, driving, and the ability to do housework and resume domestic roles. Psychologically, many group members were depressed and discouraged about the slowness of their recovery. Their reactions were similar to those shown following bereavement with members demonstrating the stages of denial, anger, depression, and eventual acceptance. One of the problems related to the group was the heterogenous nature of the members. The very mixed abilities of participants created problems for therapists in determining how directive they should be. Also, some patients, depending on their level of functioning, had difficulty concentrating on the material or issues being discussed. At the end of the program, two of the three groups found the experience to be positive, enjoyable, educational, and useful. The third group, however, was disturbed about dominant and manipulative members, negative group themes, and hostile

confrontations directed at the therapists. The authors attributed this third group's dissatisfaction to the absence of one of the co-therapists for three of the six sessions. Butcher, Smith, and Gillespie (1984) also recognized the difficulty for members to feel comfortable with one another, and establish group cohesion, in a group of such short duration.

In another study examining group therapy approaches in a medical setting, Democker and Zimpfer (1981) analyzed 15 selected investigations that describe the medical application of groups from 1970 to 1977. With an emphasis on psychosocial interventions, the authors examined the process and outcome variables described in the studies. To gain perspective on the experience of illness, they identify five stress-producing factors which are characteristic of any serious medical encounter and contribute to its crisis nature:

1. Dependency. Medical procedures necessitate dependency on nurses and other hospital personnel for such basic needs as food, maintenance of body warmth, and elimination.
2. Loss of control. The individual loses power over daily aspects of living. Personal well-being is in the hands of others whom the patient must rely on for competence, continued interest, and caring.
3. Changed behavior norms. Illness and hospitalization entails loss of privacy, lowered status, and altered identity. Illness also entails assumption of the sick role which promotes passivity and helplessness.
4. Fear. People may fear death, pain, the unknown, or unexpected complications or adverse reactions to drugs.

5. Concern about others' responses. Illness and the resulting loss of function can place strain on the relationship between patients, family, and friends. Frustration, guilt, and fear of rejection can occur.

Democker and Zimpfer (1981) believe there are four basic therapeutic goals to deal with the stressful aspects of the serious medical encounters named above: (a) sound physiological outcome, (b) reintegration into family and community, (c) adequate personal resolution of the experience, and (d) individual growth. They suggest that participation in a group can help the individual to attain those outcomes. In their view, there are two general types of groups in medical settings: preparatory and adaptive. The preparatory group assists the patient anticipating an event, such as childbirth or surgery. The group's function is to share information, problem-solve, and develop coping techniques. The adaptive group is more affectively oriented and unstructured. It helps people to face serious diagnoses and reestablish supportive relationships. The authors reviewed group psychotherapy clinical studies and identified nine potential group gains. Some of the gains parallel Yalom's (1975) curative factors list which involves both mechanisms of change and conditions of change. The group gains list consists of: (a) provide information, (b) broaden perspective, (c) provide emotional catharsis, (d) provide peer support, (e) improve interpersonal communications, (f) expand role, (g) provide a setting for practice, (h) provide models, and (i) help confront reality. DeMocker and Zimpfer believe these sources of gain rely almost exclusively on interactions among group members and that the experience represents the unique contribution of group psychotherapy in a medical setting.

One group psychotherapy article in the literature focused on addressing the needs of adolescents with severe psychosocial disabilities. Stengel (1987) describes a case study using developmental group therapy with adolescents with severe autism. He notes that the

transition from childhood to adolescence in autistic persons is marked by an increase in group participation, social contact, and slow but consistent improvement in speech and language skills. In terms of intelligence, his group of six included the highest functioning member with dull normal ability, a second in the borderline range, two members in mildly retarded range (I.Q. 50-69), and the two lowest functioning participants in the moderate retardation range (I.Q. 35-49). Stengel used an integrated therapeutic effort involving art and music therapy, charades, and guided role-playing. His hope was that these activities and techniques would allow the spontaneous emergence of group dynamic themes. He believes this did not occur because of the group members' extreme need for direction, familiarity of content, and self-control. Stengel was encouraged by observations of increased verbalizations, statements about feelings, and the enthusiastic participation of members. He was unsure, however, if these treatment effects would be generalized to people and places outside the group setting.

Kriegsman and Celotta (1981) describe a program of group counseling exclusively for women with physical disabilities. The program, called "creative coping," involved a heterogeneous group of women with a wide range of disabilities, as well as ages, stages of development, and vocational and marital status. Group sessions involve two distinct phases: relationship-building and problem-solving. The relationship-building component is intended to facilitate trust and commitment and involves techniques such as reflecting, self-disclosing, positive reinforcement, and role modeling. The second phase of problem-solving assists participants to informally assess and prioritize their needs followed by methods to set realistic objectives and goals. Throughout the eight sessions, disability concerns such as sexuality, anger, dependency, and self-acceptance were explored and discussed. The authors report the use of an instrument called a Cope-Ability Scale to assess the impact of the group. Although

they report the instrument to be in the piloting phase, they suggest the group participants improved in the following areas: (a) increased acceptance of the limitations and dependencies imposed by their disabilities and increased acceptance of the disability in general, (b) improvement in self-image and self-esteem, and (c) greater acceptance of others and less fear of rejection. Kriegsman and Celotta feel that changes in the group would be extended into more adaptive coping styles in real life as well as an increased willingness to pursue new and more challenging goals. In the future, they plan to train others to be creative coping group facilitators.

As mentioned earlier, few empirical studies of group psychotherapy with persons with disabilities have been performed. The investigations that have been reported in the literature can be roughly categorized as unstructured and structured. The author will first examine the unstructured studies in the remainder of this section of the review followed by structured, goal-oriented approaches in the next section. McDaniel (1963) conducted one of the earliest empirical studies regarding the effects of group counseling on vocational and psychological adjustment to disability. Fifty-two nonhospitalized psychiatric clients (38 female, 14 male) from the Department of Vocational Rehabilitation were randomly assigned to experimental and control groups. The four experimental groups met for five months and received group therapy, although the particular approach is not specified. Results indicated that the experimental groups were more successful in completing their workshop programs and subsequently in being rehabilitated. Relevant to the present study, because the author used a control group that did not meet as a group, the effect of attention cannot be ruled out. McDaniel did conclude, however, that "from the point of view of rehabilitation, the application of group psychotherapeutic techniques should have some value" (p. 259).



In one of the few empirical investigations with a spinal cord injured population, Miller, Wolfe, and Spiegel (1975) conducted a series of group sessions to help rehabilitation patients adjust to their disabilities. Specifically, the authors focused on evaluating the effects of a group experience on (a) the patients' factual knowledge of their disability, and (b) the patients' emotional adjustment to their disability. A Spinal Cord Knowledge Inventory test was developed to assess these effects. It was also designed to measure self-concept, perceived family support, and opinion of hospital services. Only one portion of the test, factual knowledge, was tested for validity. It was administered to 29 nurses who had completed a two-week course in rehabilitation and then compared to the scores of the 31 study participants. The difference in average scores was found to be significant. In terms of group selection, participants were not randomly selected but instead were included in treatment groups based on affirmative responses. Negative responses placed them in a non-member category. Eighteen patients participated in one of four groups twice a week for one month. Topics for the groups included spinal cord physiology, bladder functioning, spasticity, and sexual issues. Significant results were identified in two areas: (a) factual knowledge about the disability, and (b) self-concept. The authors concluded that therapeutic groups are an effective means of educating patients and improving their self-esteem. Although this group education model shows promise, the validity and reliability of their instrument is questionable, as is their group selection procedure. In addition, it is not clear what types of interventions these authors used to facilitate the improvement in self-concept. They conclude simply that "self-esteem was positively affected by group participation" (Miller, Wolfe, & Spiegel, 1975, p. 134). Similarly, McDaniel (1963) did not specify his approach. Unfortunately, vagueness of approach makes adequate evaluation or duplication of the group intervention very difficult (Kurtz, 1975).

## THE USE OF STRUCTURED GROUP INTERVENTIONS TO FACILITATE PSYCHOSOCIAL ADJUSTMENT IN PERSONS WITH DISABILITIES

The rehabilitation and psychological literature suggests that structured group approaches may be effective in facilitating goal achievement (Danish & Zelenski, 1972; Kaplan & Sadock, 1971; Evans, Halar, & Smith, 1985), problem-solving (Pekala, Siegel, & Farrar, 1985), and self-esteem (Kaseman, 1976; Parrott & Hewitt, 1978; Roessler, 1978). As noted in the introduction, the term "structured experiences" refers to "an intervention in a groups process that involves a set of specific instructions for participants to follow" (Kurtz, 1975, p. 167). Drum and Knott (1977) believe structured group interventions have a number of positive attributes:

1. Due to the definite structure, these groups communicate a sense of goal directedness and focus.
2. Structured groups raise a person's approach gradient so that they will attempt new behaviors.
3. They encourage growth and change by providing specific mechanisms of active problem-solving.
4. Structured interventions represent an economical use of treatment time because they allow a significant number of issues or needs to be addressed.

Other authors have stressed the advantages of structured interventions for the group facilitator (Middleman & Goldberg, 1972). In their view, structure allows the facilitator to: (a) focus on a specific goal and eliminate goal-detracting influences, (b) converge resources in order to amplify learning, and (c) assess the degree of goal attainment for each group member. In this section of the review, studies will be examined which have focused on structured interventions with persons with disabilities.

Soloman, Berzon, and Davis (1970) conducted a series of self-directed personal growth groups with vocational rehabilitation clients. The goal of the program was to enhance the participants' interpersonal skills, self-understanding, and vocational potential. Subjects included individuals recruited from the client population of vocational rehabilitation and local sheltered workshops. Individuals were screened out of the study if there was evidence of chronic emotional disturbances, below-normal intelligence (I.Q. of 89 or below), or communication problems that could seriously hinder their ability to function or communicate in a small group. Participants met in self-directed experimental groups for four hours per day for two weeks. A control group was not given any group experience. Treatment involved a series of structured interpersonal exercises presented on tape and in notebook form. Measures included pre and post-test evaluations of self-concept, self-disclosure, self-understanding, and motivation to work. There were significant positive changes on all of the measures with the exception of self-understanding. However, treatment effects did not remain at a six-month follow-up assessment. The authors concluded that the overall results support the use of self-directed groups for positive psychological and interpersonal change.

In another study with vocational rehabilitation clients, Quinn and Richman (1980) used a structured group approach to focus on the psychological and vocational needs of community-based psychiatric clients. The authors believe the major problems of this population involve excessive dependence, an external locus of control, and stress-related difficulties due to a lack of social support. In their view, the group experience can promote change without increasing dependence on the vocational rehabilitation system. Consequently, persons with psychiatric disabilities are less likely to feel they are being told what to do, which can result in greater independence, motivation, and cooperation. Quinn

and Richman utilized an approach called Structured Experiential Training (SET) which involves goal attainment, skill acquisition, and mutual concern and accountability. The SET model has been used effectively with drug abusers (Dell Orto, 1975), persons with physical disabilities (Pelletier & Hazen, 1977), and female alcoholics (Trudel, 1977). Groups meet weekly for two hours for 15 to 20 weeks, and focus on structured activities to promote realistic goal-setting, problem-solving, and group cohesion. Female and male co-facilitators are used to share clinical and evaluative responsibilities, as well as to model positive social interaction. Although formal assessment procedures were not specified, the authors did report positive gains for their 17 participants. During participation in the group, or one month following the group, some became gainfully employed or entered training workshops, some moved into cooperative housing, and several developed the skills necessary to obtain active vocational rehabilitation client status. Additional positive results included increased self-confidence, improved grooming, and the ability to set and achieve goals. With the exception of co-facilitators, the SET approach has many similarities to the present investigation's model of PAS. Unfortunately, Quinn and Richman did not specify evaluation instruments, nor did they use a randomized control group design, hence comparisons regarding outcome efficacy are difficult to make. However, the authors have proposed a structured group model with proven past efficacy and with the potential for effective use in the future with vocational rehabilitation clients.

Structured groups have also been used to improve social skills and assertiveness with persons with physical disabilities. In a study involving individuals with spinal cord injury, Dunn, Van Horn, and Herman (1981) compared three structured training procedures. The authors also created an educational film depicting sensitive social situations for people with disabilities and how to cope with them in appropriately assertive ways. One treatment group

received videotape feedback, lecture and discussion, and modeling. A second group received these same treatment approaches along with segments of the educational film at the end of each session. A third group saw the entire film on one occasion (with no other treatment), and a fourth group received no intervention. Assessment before and after the groups involved a social skills evaluation battery and a videotape measure of performance. The results showed no significant differences between groups on the social skills assessment, but the first two groups were significantly more assertive on the videotape measure than the film only group or the control group. In another study with persons with physical disabilities, Starke (1987) compared the effectiveness of a structured assertiveness training group with a discussion-support group. The assertiveness training group improved more on a behavioral observation scale and an assertion questionnaire than the discussion-support group or a control group. Similar favorable results have been found by other investigators using assertion groups with individuals with disabilities (Glueckauf, Horley, Pouskinsky, & Vogel, 1984; Grimes, 1980; Mischel, 1978; Morgan & Leung, 1980).

In a unique study using telephone group counseling, Evans, Halar, & Smith (1985) utilized a cognitive therapy approach to assist individuals with physical disabilities to achieve personal goals. The subject population involved 150 outpatients who previously had been hospitalized at a rehabilitation medicine facility. They were randomly assigned to treatment ( $n = 75$ ) or control groups ( $n = 75$ ) providing they met certain criteria. Participants had to be able to understand ordinary speech and have adequate cognitive ability to carry on meaningful conversation. The telephone was used with this population due to geographic and mobility constraints. Telephone group sessions took place once weekly for an hour. Participants in a group session (number unspecified) were called and placed on the same telephone line so they could hear and respond to each other. The therapy involved resolving

difficulties related to loneliness, depression, and personal dissatisfaction. Examples of goals set by participants included gaining rehabilitation information, lessening anxiety, increasing energy level, and becoming more independent. Treatment group results indicated significantly less loneliness and higher goal attainment than the control group. In addition, families of treatment group participants observed a greater increase in social role skills than the control group. There were no significant differences on measures of depression and life satisfaction. This unique approach to group counseling has significant potential for homebound individuals. Although visual feedback such as eye contact and body language is not available, telephone counseling provides reassurance, support, impulse expression, and action against isolation.

In conclusion, the studies examined in this section suggest that structured groups can have positive effects on self-concept and motivation to work (Soloman, Berzon, & Davis, 1970), goal attainment (Quinn & Richman, 1980; Evans, Halar, & Smith, 1985), assertiveness (Dunn, Van Horn, & Herman, 1981; Starke, 1987), and loneliness (Evans, Halar, & Smith, 1985). These positive effects were found to occur with a variety of populations, including vocational rehabilitation clients and individuals with psychiatric disabilities, spinal cord injuries, and physical disabilities. In the final section of this review, the structured group approach PAS (the model under investigation in the present study) will be examined and discussed.

### THE PERSONAL ACHIEVEMENT SKILLS GROUP APPROACH

The purpose of this final section of the review is to give the reader an overview of the PAS model and to examine empirical evaluations of the approach. PAS is a systematic training *package* involving a series of social and motivational skill-building exercises.

Through group interaction, participants gain an increased understanding of their impact on others and, as a result, learn to change their behavior to be more effective in real life circumstances. Roessler and Means (1976) explain that PAS does not limit itself to specific adjustment areas, but rather introduces clients to the following life skills central to social and personal adjustment:

1. Communication skills. How to interact with people in a positive, helpful manner.
2. Self-examination skills. How to facilitate self-understanding and promote helpful feedback from and to others.
3. Value clarification skills. How to examine needs and desires and translate them into meaningful personal goals.
4. Valuing skills. How to identify and utilize personal value priorities in goal selection.
5. Goal definition skills. How to define a personal goal or objective so that it is obtainable.
6. Problem exploration skills. How to examine the factors which have interfered or are interfering with movement toward a desired goal.
7. Program development skills. How to schedule a series of activities and steps to achieve goals.

The basic objectives of the PAS approach are derived from interpersonal skills training and psychological education models. With such an approach, the emphasis is on teaching participants to become effective change agents in their own lives (Ivey & Alchuler, 1973). This is accomplished by increasing the individual's intentionality, action orientation, and goal attainment. Additionally, there is an emphasis on demystifying the helping process

by making it explicit and concrete. Consequently, participants can assimilate and transfer to others what they have learned. This process is facilitated through a group experience which involves integrated eclectic procedures (e.g., principles of insight and action counseling) in order to achieve goal attainment. Psychological education objectives are reflected in the two basic purposes of PAS training: to teach communication and goal setting skills, and to facilitate personal growth. To accomplish these purposes, group exercises and experiences are patterned according to the basis of effective helping, facilitation of trust, self-exploration, self-understanding, and constructive action (Carkhuff, 1969). Roessler and Means (1976) provide an overview of the PAS model in accordance with the effective helping sequence:

*Self Exploration*

1. Building group cohesion—involves exercises to build group rapport and trust
2. Communication lessons—includes basic elements of effective interpersonal skills
3. Value clarification—focuses on value clarification exercises of Simon [1972] and Rath's [1966]

*Self-Understanding*

4. Value and goal defining—presents Lasswell's eight needs system and Rucker's [1969] approach to problem solving and decision making
5. Program development—based on the self-modification principles of Watson and Tharp [1972] and the behavioral counseling principles of Krumboltz and Thoresen [1969]
6. Goal attainment scaling—introduces Kiresuk's [1972] approach to systematic goal attainment evaluation

*Constructive Action*

7. Monitoring—periodic monitoring of participant progress toward goal attainment
8. Goal attainment—achievement of a personal goal
9. Continued use of skills—application of Personal Achievement Skills to additional life goals (p. 6).

PAS is structured with a social phase and a motivational phase. On the social level, participants are involved in exercises to build group cohesion, rapport, and trust. During this



phase, members reveal personal feelings and experiences under facilitative conditions. As this self-exploration progresses, participants take part in communication skills training which is designed to enhance interpersonal functioning. As trust and communication is improved, members are increasingly able to discuss and explore values and goals. This progression moves the group into the motivational phase wherein self-understanding and constructive action are emphasized. Members generate a list of potential goals based on value clarification exercises. These goals are prioritized as members contrast their goals with further value exercises and feedback from the group. After participants select a goal, they engage in problem-solving to determine why the goal was not accomplished in the past, as well as what future obstacles may be encountered. This is followed by program development wherein members specify the necessary steps and deadlines to achieve their goal. The final phase of PAS, constructive action, emphasizes continual monitoring and repeatedly acting to achieve one's goal.

PAS has been the focus of three empirical investigations in the literature (Roessler, Milligan, & Ohlson, 1976; Roessler, Cooke, & Lilliard, 1977; Roessler, 1978). In the first, Roessler, Milligan, and Ohlson (1976) studied the effects of PAS on persons with spinal cord injury in a rehabilitation center. Ten subjects were randomly assigned to a PAS group and ten to a control group. Psychological adjustment measures were completed initially by subjects; however, evaluation of the program was discontinued due to a 60 to 80 percent attrition rate of the experimental and control groups. According to the authors, this high attrition rate could be partially attributed to a lack of commitment from the rehabilitation staff. As was mentioned in the introduction, rehabilitation programs have traditionally placed greater importance on the physical aspects of rehabilitation (physical therapy, mobility training) as opposed to psychosocial and personal adjustment issues. Roessler, Milligan, and

Ohlson mention that rehabilitation staff did not encourage client attendance of the PAS meetings. Other reasons for the high attrition rate included family and medical problems. Of the ten experimental subjects, eight requested further counseling and two completed the program and set and accomplished significant goals. The authors concluded that personal adjustment training programs can be successful if special consideration is given to such issues as attendance, screening, and staff commitment.

In a subsequent study, Roessler, Cooke, and Lilliard (1977) investigated the effects of PAS training on general rehabilitation clients with a cross-section of disabilities. Subjects selected for the study were enrolled in a work adjustment setting in a rehabilitation center and were assigned to either PAS training ( $n = 20$ ) or a placebo training control group ( $n = 23$ ) emphasizing personal hygiene. PAS groups met daily for two hours over a five week period. The *treatment* control group met for approximately an hour a day for the same five-week period. Measures before and after the groups included a scale to assess life perspective (optimism), a questionnaire regarding work-related attitudes (such as vocational maturity and functioning), and goal attainment scaling. Results indicated that the PAS group had a more optimistic life perspective and made greater gains on work-related attitudes. In addition, the PAS group showed significantly more movement on self-selected goals than the control group.

Roessler (1978) also assessed the effects of PAS with persons with visual impairments in a rehabilitation center for the blind. Clients involved in the study were enrolled in a personal adjustment program at the Arkansas Enterprises for the Blind. As a result of their program involvement, they were already participating in some form of group counseling. Subjects were then randomly assigned to a PAS group or remained in their existing therapeutic adjustment group. Measures included a scale to assess optimistic beliefs, a locus

of control scale, a self-esteem evaluation, and goal-attainment scaling. Experimental clients were involved in a PAS group for 90 minutes-a-day, 3 days-a-week, for 10 weeks. Control subjects were involved in group counseling 45 minutes-a-day, 2 days-a-week, for the same 10-week period. In terms of the subject pretest profile, both groups reported a strong internal locus of control and had high ratings on the scale assessing optimism. These measures did not change significantly in the posttest assessment; however, there were changes on both self-esteem and goal-attainment. Roessler concluded that the exceptionally high ratings on locus of control and optimism may have been related to the therapeutic adjustment group and mobility training that subjects were already receiving at the center.

In summary, structured, goal-oriented group approaches, like PAS, have been shown to have efficacy with individuals with disabilities (Parrot & Hewitt, 1978; Wetzel et al., 1976; Danish & Zelenski, 1972; Kaplan & Sadock, 1971; Evans, Halar, & Smith, 1985; Quinn & Richman, 1980). Additionally, the PAS model addresses the unique psychosocial problems of persons with special needs. As discussed earlier, productivity studies with individuals with SCI suggest problematic levels of functioning (Cogswell, 1968; Gordon, Lehman, & Brown, 1982). A study by Kemp and Vash (1971) suggested that the most productive persons with SCI were characterized by a forward-looking, goal setting style and effective social functioning. The PAS approach focuses directly on these characteristics through its strong emphasis on value clarification, participant goal setting, and communication skills. Other psychosocial problems mentioned in the rehabilitation literature include poor social skills (Kleck & DeJong, 1983; Dunn, Van Horn, & Herman, 1981) and isolation and withdrawal (Roessler & Bolton, 1978). PAS addresses these issues with its communication skills component as well as with exercises to facilitate member participation, self-exploration, and member-to-member trust and rapport. Additionally, locus of control is a relevant construct

to this population. As noted earlier, persons with SCI who had an external locus of control were less productive (Crisp, 1984), had poorer self-concepts, and were more depressed (Dinardo, 1971) than those with an internal orientation. Dua (1970) found that action-oriented behavioral group approaches, like Personal Achievement Skills, led to decreases in externally oriented subjects when compared to an untreated control group. Other authors have suggested that societal devaluation of people with disabilities can lead to feelings of low self-esteem (Safilios-Rothchild, 1970; Wright, 1983). The PAS format provides an opportunity for members to explore issues of devaluation and stigma and, in addition, an empirical study with PAS (cited earlier in this section) suggested that PAS group participants made significant gains on measures of self-esteem (Roessler, 1978). To conclude, PAS makes unique contributions to the rehabilitation field in that it teaches specific and concrete life skills to participants and, because of its structured format, it can be easily learned and replicated in a variety of settings.

## CHAPTER III

### METHODOLOGY

The purpose of this chapter is to outline the methods and procedures used to investigate the problem. This chapter will include a description of the subjects, the selection methods, the research instruments, the experimental procedures, the data collection methods, the research design, the statistical procedures, and the research questions with their attendant hypotheses.

#### SUBJECTS

Subjects for this investigation consisted of individuals who had incurred a traumatic spinal cord injury and were at least one year post-injury. These individuals were recruited through the following sources:

1. Spinal Cord Association (a local disability advocacy organization).
2. Senior and Disabled Services (Multnomah County, Portland, Oregon).
3. State of Oregon Vocational Rehabilitation Division.
4. Disabled student service offices at local colleges and universities.
5. Other disability advocacy organizations including Oregon Paralyzed Veterans Association, Access Oregon, and Easter Seals.

The first source named, the Spinal Cord Association, is an organization in Portland, Oregon, which advocates for disability rights and accessibility. They also publish a quarterly newsletter for their 600 members. A letter and flyer (Appendix A) announcing the Personal

Achievement Skills (PAS) group was sent to 250 of the individuals on their member data base who were designated as having a traumatic spinal cord injury. The group was also advertised in their newsletter. A similar letter and flyer was sent out to 100 spinally injured clients of Senior and Disabled Services. This state agency coordinates medical, caretaker, and transportation services for persons with disabilities in the Multnomah County area of Portland, Oregon. Flyers announcing the group were also distributed to Oregon Vocational Rehabilitation, local college and university disabled student services offices, and local disability advocacy organizations. The investigator's name and phone number was indicated on the flyer and letter for persons who were interested in additional information.

Individuals who responded to announcements about the group were interviewed over the telephone by the investigator. Some respondents were screened out of the study due to medical instability, a post-injury duration of less than a year, and for having disabilities other than traumatic spinal cord injury. In addition, individuals with intellectual or developmental disabilities or severe psychological problems (e.g., history of psychotic disturbance) were considered to be inappropriate for the group experience. Such screening criteria are often utilized by other rehabilitation and psychological professionals (Ohlsen, 1977; Roessler & Bolton, 1978; Yalom, 1975). To obtain this type of information, the author asked the following questions:

1. Are you currently attending high school or are you a high school graduate?  
In high school did you take (or are you now taking) special education classes? If so, for what reason were you in these classes?
2. Have you been involved in personal counseling in the past? If so, what kinds of issues did you work on? Was it a positive or negative experience?

3. Are there particular personal issues that you would like to work on in a group counseling setting?

Respondents were considered appropriate for the study if they were assessed as having particular psychological or social difficulties such as motivational problems, poorly defined goals, social isolation, poor communication skills, or problems adjusting to their disability. In addition, it was necessary that such difficulties could be addressed in the PAS group format and that potential subjects were motivated for a group counseling experience.

#### Subject Demographic Information

The total number of subjects in the investigation was 29. Eight subjects participated in experimental group I, 7 took part in experimental group II, and the remaining 14 were in the control group. Originally, approximately 40 people agreed to participate, but 5 individuals from the experimental group and 6 individuals from the control group decided to discontinue their involvement. Table I indicates the age, sex, number of years since injury, and number of subjects employed.

TABLE I  
DEMOGRAPHIC INFORMATION ON SUBJECTS IN  
EXPERIMENTAL AND CONTROL GROUPS

Group	N	Mean Age	Average Number of Years Since Injury	M/F	Number Employed
E	15	38.8	10.7	9/6	5
C	14	36.1	10.1	9/5	3

## RESEARCH INSTRUMENTS

The following assessments were administered to experimental and control group subjects before and after the treatment intervention period.

### Activity Questionnaire

This 21-item self-report questionnaire (Appendix B) was developed for this study to assess the average number of times and average number of hours per week that subjects spend engaged in productive behaviors. The activity items on the questionnaire were selected to cover the range of activities defined as productive behavior by Kemp and Vash (1971). These constructive activities include employment or educational pursuits, social or community involvement, avocational interests and hobbies, and special responsibilities in the home. In addition, there are three items on the test that are interpreted as nonproductive and are scored in the opposite direction. They include time spent in bed (other than napping or sleeping), time spent watching television alone, and time spent engaging in procrastinating behavior such as daydreaming or avoiding responsibility. Scoring is calculated by separately adding the figures in the average total times per week column and the average total hours per week column. The nonproductive item figures are subtracted from the productive item totals. This yields two scores for the questionnaire: (a) average total times per week that the productive behaviors are performed, and (b) average total hours per week that productive behaviors are initiated.

For content validity, a group of judges was identified and asked to decide if scale items fell within the domain of the construct and whether the items, collectively, were comprehensive in measuring the domain. Judges were elected from the fields of (a) rehabilitation medicine, (b) rehabilitation psychology, and (c) vocational rehabilitation. In



addition, two individuals with spinal cord injury were selected as judges in an effort to represent the population. Initially, judges were consulted with regard to the addition or modification of scale items. Based on this input, a draft was developed and sent to judges for additional feedback. Items upon which the judges could not reach final consensus were discarded. Reliability was assessed using a test-retest procedure over a two-week period. A subject population of 35 undergraduate students in an introductory psychology class was used to evaluate the instrument. The Pearson product moment correlation coefficient was calculated at .49 for average total times per week and .54 for average total hours per week.

### Affiliative Tendency

The Affiliative Tendency scale (Appendix C), developed by Mehrabian (1970), is a 26-item questionnaire designed to measure social skills conducive to positive and comfortable social exchanges. Those who have scored high on this measure tended to behave in a more affiliative way, were less anxious, and were more ingratiating and elicited greater relaxation from strangers they met. The scale consists of the following intercorrelated factors: (a) preference for group versus individual activities, (b) preference for overtly expressing affection toward people, (c) preference for warm and friendly others, and (d) tendency to make a special effort to have and maintain positive exchanges. Subjects respond to the items of Affiliative Tendency using a 9-point scale which ranges from -4 (very strong disagreement) to +4 (very strong agreement). To control for response bias, half of the items are positively worded and half are negatively worded.

To assess reliability, Mehrabian (1970) administered the scale to 916 college undergraduates with a resulting Kuder-Richardson (KR 20) internal reliability coefficient of .80. A four-week test-retest of one sample of 108 subjects yielded a product-moment correlation coefficient of .89. Discriminant validity for Affiliative Tendency is provided with

reports of correlational data. Subjects were administered the scale along with the Crowne and Marlowe (1960) Social Desirability scale. Mehrabian (1970) reports that the significant, although low correlation of .20 suggested success in measuring affiliative tendency independent of social desirability bias, despite the fact that it is socially desirable to be friendly and sociable. A more significant correlation, .44, was found between Affiliative Tendency and Empathic Tendency scale (Mehrabian & Epstein, 1972). This assessment of emotional empathy includes items such as: "I tend to get involved with a friend's problems" and "seeing people cry upsets me." The author concluded that this correlation indicates that affiliative persons are more likely to empathize with other people's emotions.

#### Nowicki-Strickland Locus of Control Scale

The Adult Nowicki-Strickland Locus of Control (Appendix D) (ANSIE) (Nowicki & Duke, 1974) is designed to measure an individual's expectancy for either internal or external control of reinforcement. It is comprised of 40 forced-choice items involving ways in which individuals view their capacity to control reinforcement. Two sample items include, "Do you believe it is better to be smart than lucky?" and "Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?" The ANSIE is scored by totaling the number of externally oriented responses checked. The higher the score, the more externally oriented the individual.

The ANSIE has been standardized on young adults and has shown test-retest reliabilities ranging from .63 to .71. These figures can be compared to Rotter's (1966) locus of control scale reliabilities of .43 to .84, as reported by Hersch and Scheibe (1967). For the present study, the ANSIE was chosen instead of the Rotter locus of control scale because of its greater simplicity and less demanding reading level (Lefcourt, 1991). Additional reliability data for the ANSIE has shown internal consistency values of .66 and .75. There

is also evidence of construct and discriminative validity for the scale. ANSIE scores have been related to achievement in college students (Nowicki & Duke, 1973) and to psychological maladjustment (Duke & Mullens, 1973). In another investigation, Duke and Nowicki (1973) related ANSIE scores to Adjective Check List (ACL) (Gough & Heilbrun, 1965) scores as Hersch and Schriebe (1967) had previously done with Rotter internal-external scores. In showing empirical relationships similar to those found with the more established Rotter measure, the ANSIE gains construct validity.

#### Life Satisfaction Index

The Life Satisfaction Index, Form A (Appendix E), developed by Neugarten, Havighurst, and Tobin (1961) is a 20-item inventory intended to measure emotional adjustment to the later years of life. Examples of items include, "These are the best years of my life" and "I've gotten pretty much what I expected out of life." The authors selected the items based on face validity with the belief that an individual's self-evaluations are often most accurate. A study by Wolk and Kurtz (1975) related internal locus of control scores to positive life satisfaction ratings. These same authors evaluated this life satisfaction scale for consistency along with scales for adjustment and involvement. The resulting alpha coefficients for each were: adjustment, .61; involvement, .77; and life satisfaction, .84. Some modifications in the original inventory were made by Swenson (1976) for a study on locus of control and persons with spinal cord injury. Two items were eliminated because they applied only to aging and the stems of several other items were changed to be more appropriate for persons with disabilities.

### Rosenberg Self-Esteem Scale

Rosenberg's (1965) Self-Esteem Scale (Appendix F) is a 10-item, 6-point Likert-type instrument which measures the self-acceptance component of self-esteem. The possible range is 10 to 60, with a high score indicating high self-esteem. Half of the items are negatively worded to control for response bias. Although the scale was originally designed and tested for use in high school students, it has been used in a variety of adult samples since 1965. Test-retest reliability for the scale was .85 for a group of college students after two weeks (Robinson & Shaver, 1968). In terms of construct validity, the Rosenberg measure correlated .72 with the Lerner Self-Esteem Scale (Savin-Williams & Jaquish, 1981) and .55 with the Coopersmith Self-Esteem Inventory (Demo, 1985). Discriminative validity has also been demonstrated for the Rosenberg instrument. Reynolds (1988) found no significant correlations between Rosenberg scores and locus of control (-.04), grade point averages (.10), and verbal portion of the scholastic Aptitude Test (-.06).

## EXPERIMENTAL PROCEDURES

As explained in the beginning section of this chapter, subjects were recruited through local state agencies and disability advocacy organizations. Interested individuals called the investigator and were screened over the phone with regard to their motivation and appropriateness for the group experience. The screening criteria, noted earlier, reflects guidelines used by other authors (Ohlsen, 1977; Roessler & Bolton, 1978; Yalom, 1975). It was explained to respondents who met the criteria that they would be contacted at a later predetermined date, following randomized assignment of subjects, and informed if they would be in the experimental or control group. It was emphasized that if they were not assigned initially to an experimental PAS group, then they would have an opportunity at a

later date for such involvement. The process of distributing and mailing out letters and flyers, as well as other recruitment activities, began in mid-June of 1991 and continued through to the first week of September 1991. During this time, a subject roster was maintained with individual's name, telephone number, address, and subject identification number.

Randomized assignment of subjects from the participant roster was carried out on September 8, 1991. This procedure was done in accordance with PAS group evaluation suggestions (Means & Roessler, 1976). A one-to-one sampling ratio was established (one client to PAS and one to the control group) with even numbers from the random number table going to PAS and odd numbers to the control group. Using subject identification numbers, this procedure was carried out until all 40 individuals on the subject roster were assigned to experimental and control conditions. Subjects were then notified by phone of their assignment to groups, as well as meeting times and locations. All subjects (experimental and control) were sent the battery of assessments previously described. Experimental group participants were asked to bring their assessment packets to the first group meeting while control group subjects were provided a stamped mailer to return the materials to the investigator by a certain date.

The two experimental PAS groups each met one time per week for 11 weeks beginning in mid-September 1991 and continuing through mid-December 1991. The meetings were held from 6:00 p.m. to 8:00 p.m. at the disability advocacy agency in Portland called Access Oregon. The investigator facilitated both experimental groups. Informed consent forms (Appendix G) were discussed and signed during the first group sessions. Due to medical problems, scheduling conflicts, and transportation difficulties, the original 20 subjects assigned to the PAS experimental group was decreased to 15. Eight were assigned

to Monday nights, and 7 to Thursday nights. The control group size diminished to 14, as 6 subjects never returned their test battery packets, despite three calls and requests from the investigator. The experimental group participants did attend meetings fairly consistently, although on rare occasions, attendance would drop to four or five subjects (attendance records in Appendix J). The male-female breakdown for the two experimental groups was uneven due to a necessity to accommodate the subjects' transportation and scheduling needs. In experimental group I (Monday nights), there were five females and three males, and in experimental group II on Thursday nights, there was just one female and six males. Posttest packets were distributed at the final meetings and subjects were asked to mail them to the investigator within one week following the final session. Test packets were also mailed to control group subjects on the same date with similar deadline requests.

### EXPERIMENTAL GROUPS

Treatment for the experimental groups was based on the PAS model developed by Roessler and Means (1976). This approach is described in more detail in the final section of the review of the literature. PAS is divided into two essential elements: the social phase and the motivational phase. Group leaders are provided with an instructor's manual to facilitate participant movement through the various exercises and activities. Notes for PAS instructors and sample exercises from the social and motivational phases can be found in Appendix I. Group members utilize accompanying workbooks that also contain the exercises. Several audiotapes are also used for exercises regarding individual behavior change and communication skills. For additional information on Personal Achievement Skills training, interested individuals can contact: Director of Training, Arkansas Rehabilitation Research

and Training Center, Hot Springs Rehabilitation Center, 105 Reserve Avenue, P. O. Box 1358, Hot Springs, Arkansas 71901.

## DATA COLLECTION

Experimental and control subjects had the following measures and material mailed to them one week prior to the first group session:

1. Activity Questionnaire (Appendix B).
2. The Affiliative Tendency Scale (Appendix C).
3. Nowicki-Strickland Locus of Control Scale (Appendix D).
4. Life Satisfaction Index (Appendix E).
5. Rosenberg Self-Esteem Scale (Appendix F).
6. Biographical Questionnaire (e.g., name, address, age, level of injury, etc.) (Appendix H).

Experimental subjects were asked to bring the completed measures the night of their first group session while control participants were asked to mail them back to the investigator. Following the group experience, experimental subjects were given the measures to be completed and mailed to the investigator. Control subjects were sent the measures in the mail and were also asked to return them to the investigator. The order of testing materials was randomized to prevent any systematic effects which could be attributed to order of presentation.

## RESEARCH DESIGN

The research design utilized in this study was a randomized, pretest-posttest control group design. The major advantage of this design is the initial randomization which assures

for statistical equivalence between groups. The design is described by Campbell and Stanley (1963, p. 13) and is presented in diagram form in Figure 1.

FIGURE 1  
RANDOMIZED SUBJECTS, PRETEST-POSTTEST  
CONTROL GROUP DESIGN

	Group	Pretest	Intervention	Posttest
(R)	E <sub>1</sub>	O	X	O
(R)	E <sub>2</sub>	O	X	O
(R)	C <sub>1</sub>	O	—	O

As discussed in Chapter I, the main concern with this design is the effect that pretesting may have on the experimental subjects. It may increase their sensitivity to treatment and, as a result, impact external validity. This interaction effect will be discussed more fully in Chapter V.

### STATISTICAL ANALYSIS

The hypotheses of this investigation predict that significant positive changes will occur in the dependent measures as a result of participation in the PAS groups. The pretest and posttest data for all the assessments used were examined in two ways. First the data were analyzed by examining individual subject changes through the use of a repeated measures t-test. In this type of analysis, the subject will serve as his own control thus eliminating excess variability. In addition, a group t-test alone is limiting as there is a potential for large and small differences to cancel each other out and give the appearance of no differences. A repeated measures t-test allows the experimenter to examine both the magnitude and direction of individual change. The second approach to analyzing the data was by group



change. The two experimental groups were collapsed into one group and a t-test for independent groups was computed.

## RESTATEMENT OF THE HYPOTHESES

This study sought to examine the following research questions and hypotheses:

### Research Question 1

Is there a positive treatment effect of Personal Achievement Skills upon the productivity, social functioning, and self-esteem of individuals with spinal cord injury?

Hypothesis 1:1. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in productive behaviors, as measured by the Activity Questionnaire, when compared to individuals with traumatic spinal cord injury who participate in a control group.

Hypothesis 1:2. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in social functioning and self-esteem, as measured by the Affiliative Tendency Scale and the Rosenberg Self-Esteem Scale, when compared to individuals with traumatic spinal cord injury who participate in a control group.

### Research Question 2

Is there a positive treatment effect of Personal Achievement Skills training on the control expectancy and satisfaction with life of individuals with traumatic spinal cord injury?

Hypothesis 2:1. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in control

expectancy and satisfaction with life as measured by the Nowicki-Strickland Internal External Scale and the Life Satisfaction Index, when compared to individuals with traumatic spinal cord injury in a control group.

## CHAPTER IV

### RESULTS

The purpose of this chapter is to present the results of the investigation in relation to the research questions and their accompanying hypotheses. These research questions and hypotheses will be restated and followed by a statistical analysis and results summary.

The presence or absence of Personal Achievement Skills (PAS) group psychotherapy was the independent variable under investigation in this study. Due to small sample size, experimental groups I and II, both of whom received the same PAS group training, were collapsed for the purposes of statistical analysis. All of the hypotheses in this investigation were tested at the .05 level of significance. Trends will be identified at the .10 level of significance. The dependent variable were the subjects' (a) productivity, as measured by the Activity Questionnaire; (b) social functioning, as indicated by Affiliative Tendency Scale; (c) self-esteem, as measured by the Rosenberg Self-Esteem Scale; (d) locus of control, as assessed by the Nowicki-Strickland Internal External Scale; and (e) life satisfaction, as measured by the Life Satisfaction Index.

#### Research Question 1

Is there a positive treatment effect of Personal Achievement Skills upon the productivity, social functioning, and self-esteem of individuals with spinal cord injury?

Hypothesis 1:1. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in productive

behaviors, as measured by the Activity Questionnaire, when compared to individuals with traumatic spinal cord injury who participate in a control group.

This hypothesis was analyzed using a repeated measures t-test and a t-test for independent groups. The repeated measures t-test was computed to determine if there was a significant difference in the subjects' pretest and posttest scores while the t-test for independent groups examines differences between the experimental and control groups. The Activity Questionnaire yields two scores in assessing the performance of productive behaviors. They include average total times per week and average total hours per week. Table II presents the results of the repeated measures t-test while Table III shows the results of the t-test for independent groups. For all the tables in the results section, in the average of the differences ( $\bar{d}$ ) boxes, a negative number reflects improvement as it indicates pretest minus posttest scores.

TABLE II

REPEATED MEASURES T-TEST FOR DIFFERENCE IN PRETEST AND  
POSTTEST SCORES FOR EXPERIMENTAL AND CONTROL  
SUBJECTS ON THE ACTIVITY QUESTIONNAIRE

		N	Average of the Differences	Standard Dev. of the Differences	Test Stat t	P-Value
Average total times per week	Exper	15	$\bar{d} = 0.333$	sd = 12.838	.101	.461 ns
	Control	14	$\bar{d} = -7.607$	sd = 23.295	-1.222	.122 ns
Average total hours per week	Exper	15	$\bar{d} = 2.366$	sd = 1.361	.246	.404 ns
	Control	14	$\bar{d} = 4.000$	sd = 36.497	.411	.344 ns

ns = non-significant at  $\alpha > .05$ .

TABLE III

## T-TEST FOR INDEPENDENT GROUPS BETWEEN EXPERIMENTAL AND CONTROL SUBJECTS ON THE ACTIVITY QUESTIONNAIRE

		N	Sample Means	Pooled Variance	Test Stat t	P-Value
Average total times per week	Exper	15	0.333	346.736	1.147	.131 ns
	Control	14	-7.607			
Average total hours per week	Exper	15	2.366	1360.728	-0.119	.454 ns
	Control	14	4.000			

ns = non-significant at  $\alpha > .05$ .

The hypothesis that PAS group participants would report a significant improvement in productive behavior, when compared to subjects in the control group, was not confirmed. The results of the t-tests indicate that both the experimental and the control groups did not change significantly from pretest to posttest.

Hypothesis 1:2. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in social functioning and self-esteem, as measured by the Affiliative Tendency Scale and the Rosenberg Self-Esteem Scale, when compared to individuals with traumatic spinal cord injury who participate in a control group.

This hypothesis was also analyzed by computing t-tests for repeated measures and independent groups. The results of the statistical analysis for both measures, affiliative tendency and self-esteem, are presented in Tables IV and V.

TABLE IV

REPEATED MEASURES T-TEST FOR DIFFERENCE IN PRETEST AND POSTTEST SCORES FOR EXPERIMENTAL AND CONTROL SUBJECTS ON AFFILIATIVE TENDENCY AND SELF-ESTEEM

		N	Average of the Differences	Standard Dev. of the Differences	Test Stat t	P-Value
Affiliative tendency	Exper	15	$\bar{d} = 0.667$	sd = 19.729	.131	.449 ns
	Control	14	$\bar{d} = 0.500$	sd = 10.53	.178	.431 ns
Self-esteem	Exper	15	$\bar{d} = -3.733$	sd = 5.3247	-2.715	.008 *
	Control	14	$\bar{d} = 0.000$	sd = 6.805	0.000	.500 ns

ns = non-significant at  $\alpha > .05$ .

\* = significant at  $\alpha < .05$ .

TABLE V

T-TEST FOR INDEPENDENT GROUPS BETWEEN EXPERIMENTAL AND CONTROL SUBJECTS ON AFFILIATIVE TENDENCY AND SELF-ESTEEM

		N	Sample Means	Pooled Variance	Test Stat t	P-Value
Affiliative tendency	Exper	15	.667	255.212	.028	.489 ns
	Control	14	.500			
Self-esteem	Exper	15	-3.733	36.998	-1.655	.055 ns
	Control	14	0.000			

ns = non-significant at  $\alpha > .05$ .

The hypothesis that PAS subjects would report a significant improvement in social functioning (affiliative tendency), when compared to control group subjects, was not confirmed by either t-test analysis. However, the hypothesis regarding significant improvement on the self-esteem measure was confirmed by the repeated measures t-test analysis. Significant results were found in differences for pretest and posttest scores in the experimental group but not in the control group. Table IV indicates this significant positive change in self-esteem for the experimental group ( $\bar{d} = -3.733$ ) as compared to the control

group ( $\bar{d} = 0$ ) at the .05 level of significance. This result was not confirmed by the t-test for independent groups (Table V), although the P-value of .055 was very close to the .05 level of significance, suggesting a strong trend in the desired direction.

### Research Question 2

Is there a positive treatment effect of Personal Achievement Skills training on the control expectancy and satisfaction with life of individuals with traumatic spinal cord injury?

Hypothesis 2:1. Individuals with traumatic spinal cord injury who participate in Personal Achievement Skills training will report a significant improvement in control expectancy and satisfaction with life as measured by the Nowicki-Strickland Internal External Scale and the Life Satisfaction Index, when compared to individuals with traumatic spinal cord injury in a control group.

T-tests for repeated measures and independent groups were computed to determine if there was a significant difference in levels of locus of control and life satisfaction as reported by PAS group participants in comparison to control group subjects. The results of this analysis is presented in Tables VI and VII.

TABLE VI

REPEATED MEASURES T-TEST FOR DIFFERENCE IN PRETEST AND POSTTEST SCORES FOR EXPERIMENTAL AND CONTROL SUBJECTS ON LOCUS OF CONTROL AND LIFE SATISFACTION

		N	Average of the Differences	Standard Dev. of the Differences	Test Stat t	P-Value
Locus of control	Exper Control	15	$\bar{d} = -1.133$	sd = 4.640	-0.945	.185 ns
		14	$\bar{d} = -0.500$	sd = 1.988	-0.628	.271 ns
Life satisfaction	Exper Control	15	$\bar{d} = -3.666$	sd = 12.976	-1.095	.147 ns
		14	$\bar{d} = -2.071$	sd = 11.919	0.650	.264 ns

ns = non-significant at  $\alpha > .05$ .

TABLE VII

T-TEST FOR INDEPENDENT GROUPS BETWEEN EXPERIMENTAL AND CONTROL SUBJECTS ON LOCUS OF CONTROL AND LIFE SATISFACTION

		N	Sample Means	Pooled Variance	Test Stat t	P-Value
Locus of control	Exper Control	15	-1.133	15.441	-.434	.334 ns
		14	-0.500			
Life satisfaction	Exper Control	15	-3.666	155.712	-.344	.367 ns
		14	-2.071			

ns = non-significant at  $\alpha > .05$ .

The hypothesis that PAS group subjects would report a significant improvement in locus of control and life satisfaction, when compared to the control group, was not supported by either of the t-test statistics.

### SUMMARY OF RESULTS

This investigation generated three hypotheses stating that PAS subjects, in comparison to control group subjects, would improve significantly on measures of



productivity, social functioning, self-esteem, locus of control, and life satisfaction. On the dependent variable of self-esteem, there was partial conformation. The repeated measures t-test indicated significant improvement on the self-esteem measure for differences in pretest and posttest scores for experimental subjects. Significant differences were not found for control group subjects. This result was not supported by the t-test for independent groups although PAS subjects did make gains on self-esteem very close to the .05 level of significance.

## CHAPTER V

### DISCUSSION

The results of this investigation will be considered with regards to the following areas:

(a) the research results, (b) theoretical implications of the results, (c) the limitations of the present study, (d) recommendations for future research, and (e) conclusions.

### THE RESEARCH RESULTS

This study sought to evaluate the effectiveness of PAS group therapy with individuals with spinal cord injury. The research results will be discussed in relation to each of the dependent measures utilized. They include productivity, social functioning, self-esteem, locus of control, and life satisfaction. Before discussing these results in detail, it should be acknowledged that the PAS approach may not be an effective group treatment. Other than the self-esteem outcome, PAS did not demonstrate significant benefits for experimental subjects. However, there may be additional plausible reasons for the lack of treatment effect.

#### Productivity

The results of this study did not confirm the hypothesis that PAS group participants, in comparison to the control group, would report a significant improvement in productivity as measured by the Activity Questionnaire. Of the two productivity scales on the questionnaire, average total times per week and average total hours per week, neither indicated improvement for experimental subjects.

The rehabilitation literature suggests that level of productivity can play an important role in disability adjustment (Kemp & Vash, 1971; Krause, 1990). Because of the strong PAS emphasis on goal-setting and the goal-setting process, it was hypothesized that PAS participants would show improvement in productive behavior. However, teaching subjects the concepts of goal development and goal-directed behavior may not necessarily result in increases in productive activities. A study by Wetzel et al. (1976) demonstrated that subjects who participated in goal-oriented group therapy could develop numerous goals; however, the researchers suggested that these goals may be ineffective in terms of the subjects' clinically determined needs and problems. Numerous psychological variables such as anxiety, depression, poor motivation, or lack of family support could interfere with an individual's level of productivity, even if he or she had learned goal-setting skills.

Another factor which may have influenced the nonsignificance of productivity results could have been the length of PAS treatment. Subjects met for two hours a week for 11 consecutive weeks and a total of 22 hours. The authors of the PAS approach, Roessler and Means (1976), suggest groups meet two to three times a week for a total of approximately 40 hours. This increased group involvement may have afforded more generalizability of the PAS training and, as a result, positively impacted productivity results. However, certain problems such as transportation difficulties and subject commitment prevented an extended group training period. These issues will be discussed more fully in the limitations of the study section.

Additionally, nonsignificant productivity results may also have been caused by the high levels of variability of responses on the Activity Questionnaire. For example, Table III regarding the t-test for independent groups on the Activity Questionnaire indicates a pooled variance for average total hours per week of 1360.728. Such high levels of variability suggest

the effect of masking significant results. One way to have reduced this kind of variability would have been to have increased the sample size and consequently the power of the experiment. Another approach would have been to have group administered measures as opposed to sending them through the mail. In this way, the researcher could have responded to questions and possibly cleared up confusion on certain items. Because high levels of variability were seen in other aspects of the data, this procedure may have been helpful on all the measures used in this study.

### Social Functioning

Social functioning, as measured by the Affiliative Tendency Scale, was not significantly improved by PAS group training. Learning to interact comfortably and effectively with others is thought to be an important skill for individuals with disabilities (Kahn, 1969; Kleck & DeJong, 1983). Because PAS group therapy includes a series of communication skills exercises, and because of the interactional nature of the group, it was hypothesized that participants would make significant gains in social functioning. However, goal development and intentionality are the major thrusts in PAS training and not communication skills. Also, as mentioned earlier, it was necessary to reduce the PAS treatment period. With the author's (Roessler, 1976) permission, some of the communication skills exercises were bypassed in favor of value clarification and goal-setting activities. This factor may have negatively impacted scores on the Affiliative Tendency Scale. In addition, prior research studies which have demonstrated gains in social functioning have had a singular emphasis on communication improvement (Dunn et al., 1981; Grimes, 1980; Starke, 1987).

An additional factor which may have contributed to the nonsignificant results in social functioning may have involved the choice of the Affiliative Tendency Scale. According

to the developer of the scale, Mehrabian (1976), high scorers on affiliative tendency are expected to be more outgoing and friendly, and to convey more positive attitudes verbally and nonverbally; consequently, positive gains on the scale may reflect more basic changes toward extroversion and a positive outlook rather than the changes that may result from learning new skills in communication. Therefore, a scale that assesses the specific acquisition of communication skills may have been a better choice for this investigation.

### Self-Esteem

The results of this investigation partially supported the hypothesis that PAS group participants, in comparison to the control group, would improve significantly on the self-esteem measure. The repeated measures t-test analysis indicated significant differences in pretest and posttest self-esteem scores for the experimental group but not for the control group. Additionally, although the t-test for independent groups was not significant, a strong trend in the desired direction was noted and may also suggest some positive effects of the PAS intervention on self-esteem.

An interesting outcome emerged when the self-esteem data was further analyzed in terms of subject gender comparisons. On the repeated measures t-test, significant results were found in the differences in pretest and posttest scores for men in the experimental group ( $t = 2.784$  with a p-value of .01196), but not for women in the experimental group. Such significance was not found when a t-test for independent groups was performed. The same comparisons were run for all the other measures in the study but no significant differences were found. With regard to self-esteem, this finding suggests that, in terms of certain statistical comparisons, men respond more positively to the PAS group approach than women do. This finding, along with the general self-esteem result, will be discussed more fully in the theoretical implications of the results section.

### Locus of Control

Locus of control, as measured by the Nowicki-Strickland Locus of Control Scale, was not significantly improved by PAS group training. Because prior group studies using action-oriented, behavioral methods had reported success in decreasing the external orientation in subjects (Dua, 1970; Lesyk, 1968), it was hypothesized that PAS participants would make significant gains on locus of control. However, no such gains were found, indicating a lack of treatment effect on this measure.

### Life Satisfaction

The results of this study did not support the hypothesis that PAS group participants, in comparison to the control group, would report a significant improvement in life satisfaction as measured by the Life Satisfaction Index. Among people with disabilities, life satisfaction has been positively correlated with high levels of achievement (Shontz, 1962). It was hypothesized that because the PAS approach focuses on achievement and goal-setting skills, participants would report significant increases in life satisfaction. However, as with the locus of control measure, no significant treatment effect was noted.

## THEORETICAL IMPLICATIONS OF THE RESULTS

Personal Achievement Skills group training has been the focus of three empirical investigations in the rehabilitation literature (Roessler, Milligan, & Ohlson, 1976; Roessler, Cook, & Lilliard, 1977; Roessler, 1978). In the first, Roessler, Milligan, and Ohlson (1976) attempted to study the effects of PAS on individuals with spinal cord injury in a rehabilitation center; however, the investigation had to be discontinued due to a 60 to 80 percent attrition rate of the experimental and control groups. A subsequent study by Roessler, Cook, and Lilliard (1977) examined the effects of PAS training on general

rehabilitation clients and found that experimental subjects made significant gains on measures of optimism, work-related attitudes, and goal attainment. In the third study, Roessler (1978) evaluated the effects of PAS with persons with visual impairments in a rehabilitation center for the blind. Measures included a scale to assess optimistic beliefs, a self-esteem evaluation, a locus of control scale, and goal attainment scaling. In comparison to the control group, PAS participants made significant gains on goal attainment and self-esteem.

The results of the current investigation most closely reflects the outcome of the PAS study with individuals with visual impairments. Both studies failed to show significant results on a locus of control measure. In Roessler's (1978) study, it was suggested that the subjects' strong internal pretest scores made improvement very difficult. In the current study, the necessity for a shortened PAS treatment period may have negatively impacted locus of control scores. Both investigations did, however, demonstrate significant gains for PAS subjects on the Rosenberg (1965) self-esteem scale. Roessler attributes these gains to the positive aspects of group support, the acquisition of new functional skills, and to the enhanced acceptance of self and disability gained through the mutuality of sharing in the PAS group.

The replication of this finding in the current study may be considered noteworthy as the literature suggests that self-esteem is an important concept for people with disabilities. Lowered self-esteem can be the result of a number of factors including poor body image (Kolb & Woldt, 1976), overprotection by family members (McDowell, Coven, & Eash, 1984), limited role identification (Dunham & Dunham, 1978), sexual anxiety (Singh & Magner, 1975), and societal devaluation and stigma (Safilios-Rothchild, 1970; Omizo, 1987; Goffman, 1963). Rehabilitation theorists believe that assisting the individual with a disability to

reconstitute positive self-esteem can aid in a successful adjustment (McKelvie & Friedland, 1978; Siller, 1969; Teal & Althesan, 1975). In addition, in people with SCI, a healthy self-concept has been linked to higher productivity (Kemp & Vash, 1971), an internal locus of control (Dinardo, 1971), and greater life satisfaction (Anderson & Andberg, 1979). Approaches like PAS, which have been shown to have the potential for improving self-esteem, may be of significant value for people with SCI, as well as for the disabled population as a whole.

Another significant finding of the current study involves gender responses on the self-esteem measure. The PAS experimental group consisted of nine males and six females. On the repeated measures t-test analysis, significant positive differences were found in the pretest and posttest scores for men but not for women. There are several factors that may account for this finding. As was noted in the review of the literature section, a significant proportion of the SCI population are physically active males who are not likely to spend a great deal of time in serious introspection (Rohe & Althelstan, 1982). Their pre-injury interests often included sports, repairing machinery, and skilled crafts. According to Rohe and Althelstan, these SCI males tend to prefer the concrete, practical, and physical, and may not respond well to insight-oriented counseling approaches. Consequently, these researchers favor treatment programs which emphasize concrete behavioral goal-setting along with accurate feedback regarding participant progress. Since PAS training stresses similar treatment methods, this factor may partially account for the more positive male response on the self-esteem measure.

Another factor may involve the way in which men and women are valued in our society. Career and financial accomplishments are often the main criteria for status and acceptance for men while women are often primarily valued for physical attractiveness and



beauty. Consequently, for many women, self-image is synonymous with body image (Edwards, 1987). Women who become disabled are likely to have internalized these dominant values about physical attractiveness (Lonsdale, 1990). As a result, body image concerns such as the shortened stature from being in a wheelchair, muscle atrophy, and swelling or edema in the feet may more negatively impact the self-esteem of women with SCI than men with SCI. Hence, group counseling approaches, like PAS, which focus primarily on goal attainment may not be as effective for women as for men in terms of positive self-esteem changes.

The results of the current investigation reflect the self-esteem gains made in prior structured group studies with subjects with disabilities (Solomon et al., 1970; Quinn & Richmond, 1980; Kaseman, 1976; Parrott & Hewitt, 1978; Roessler, 1978). Drum and Knott (1977) believe such structured group approaches have certain advantages over conventional group therapies. These include (a) the ability to communicate a sense of goal-directedness and focus, (b) an economical use of treatment time which allows a significant number of issues and needs to be addressed, and (c) the ability for future researchers to replicate the techniques due to a specific set of intervention procedures. The PAS group approach combines the benefits of a structured model with the social and interpersonal processes inherent in conventional group techniques. In addition, like previous structured group studies with individuals with disabilities, it did promote significant gains in self-esteem in experimental subjects.

## LIMITATIONS OF THE PRESENT STUDY

Limitations of the current investigation will be discussed in relation to the following factors: (a) sample size and generalizability, (b) the research design and intervention method, and (c) the dependent measures.

### Sample Size and Generalizability

The current investigation may be limited in terms of generalizability by its small sample size. The original sample size of 40 subjects decreased to 29 due to attrition factors such as medical problems, transportation difficulties, and loss of interest. Since the SCI population is heterogenous, a larger sample size would have been desirable for representativeness. Consequently, the small sample size does suggest caution in extending the conclusions of the current investigation to the SCI population in general. However, a factor which may help to decrease this threat to external validity was the method by which subjects were recruited. Since subjects were voluntarily recruited from a number of different sources in the community (see Chapter III), it is believed that the sample of subjects used in this study may be representative of the SCI population.

### Research Design and Intervention Method

The research design utilized in this investigation was a randomized, pretest-posttest, control group design. The main concern in using this design is its impact on external validity. There may be an interaction between the pretest and the participants that can sensitize subjects in certain ways. This interaction effect creates a problem with generalizability as the results of the investigation may only be generalizable to pretested groups. Solomon (1949) recommends the use of an unpretested group to counter this effect. However, the limited availability of subjects for the current investigation made this addition impossible. Campbell

and Stanley (1963) suggest that the interaction effect either has no effect or an effect of a dampening order. Consequently, although the results of this study will be interpreted with caution, the interaction effect does not appear to be a major limitation.

A significant limitation of the current investigation involved the shortened PAS intervention period. In the present study, subjects met for two hours a week for 11 weeks and a total of 22 hours. The developers of the PAS approach (Roessler & Means, 1976) acknowledge that the scheduling of PAS groups can vary, but suggest that sessions be held two to three times a week for a total of approximately 40 hours. Practical considerations prevented a training period of this time length and time frame. Group members lived at various locations around Portland and the surrounding area and had to provide their own transportation to attend the PAS meetings at a centralized location. Eight of the 15 subjects could not drive and had to take public transportation or arrange for specialized handicapped van service. Meetings of more than once a week may have created a special hardship for these participants and may have precluded their involvement. Additionally, to compile 40 hours of training would have involved at least 20 PAS meetings (two hours per session once a week), and a five-month commitment. In exploring such a time frame with potential subjects prior to training, the investigator learned that this type of commitment would have been unacceptable.

Prior PAS studies (Roessler, Milligan, & Ohlson, 1976; Roessler, Cook, & Lilliard, 1977; Roessler, 1978) were all held at rehabilitation centers or workshop settings. Subjects in these investigations were already involved in rehabilitation programs and their PAS training was an added component; hence, transportation concerns and time commitment were not problems. In determining how to shorten the PAS agenda, the investigator consulted with PAS developer Richard Roessler. Roessler approved the elimination of

certain PAS exercises from the current study. These included activities which were viewed as somewhat repetitive and involved communication skills and goal exploration. Although these deletions and modifications were approved by the PAS developer, they still represent a significant alteration to the original program. If these activities had not been eliminated and the total training period had approximated 40 hours, then, potentially the current investigation may have yielded additional significant results on the outcome measures.

A final additional limitation of the intervention method involved the use of the investigator as the therapist. With such an arrangement, the investigator could potentially predispose subjects to marking responses on the outcome measures which may aide in finding positive experimental results. Also known as "teaching to the test," this potential experimenter bias should be considered a limitation of the present investigation.

### Dependent Measures

Due to the physical limitations of the subjects in this study, a concerted effort was made to choose brief, yet reliable and valid measures. With the exception of the Activity Questionnaire, all the measures had been standardized and used widely in clinical and research settings. The Activity Questionnaire was developed for this investigation and was subjected to reliability and validity procedures (Chapter III). Although the data suggested it to have sufficient reliability as well as content validity, there were high levels of variability in the responses of subjects. This variability may have been partly due to the considerable individual differences in the responses of subjects. Since it was a measure of weekly activities and behaviors, such differences would be expected; however, there was a significant amount of variability on the other measures as well.

Another factor may have contributed to some of this variability. The battery of assessments was sent through the mail and all participants were asked to complete the tests

at their homes. A cover letter accompanied the test packets which explained to respondents that they could call the investigator if they had questions regarding the assessments. The investigator received approximately three calls pertaining to such inquiries. Subjects who had questions may not have had the time to call or may have been reluctant for fear of bothering the researcher. Although it may have been difficult to gather together control subjects, a group administration of the assessments (pretest and posttest) would have allowed the investigator to more effectively respond to questions and possibly reduce confusion and clarify the intent and meaning of test items. Such a procedure may have served to reduce some of the high levels of variability on the measures and, consequently, allowed a clearer interpretation of the results.

Another limitation of the current investigation involved the lack of a follow-up measure to assess the duration of treatment effects. This additional measure would have not only served to evaluate the lasting nature of the treatment, but would have also allowed for the assessment of an incubation period. Potentially, subjects could have learned new skills which may not have been evident until a time period of growth and exploration had occurred. Following such a period, additional significant results may have been found in the outcome measures. The follow-up measure was eliminated from the study due to the difficulty in obtaining completed pretest and posttest questionnaires from both the experimental and control groups. This problem may have resulted from the physical limitations of the subjects. Although an aide or family member could have assisted with the measures, subjects may have been reluctant to request help due to the personal nature of some of the questions. The exclusion of a follow-up measure in the current study precludes the assessment of the duration of the main effects and must be considered a limitation in the research findings.

## RECOMMENDATIONS FOR FUTURE RESEARCH

It is hoped that the results of this investigation will provide an impetus to further study group psychotherapy methods for individuals with spinal cord injury. Such work should focus on tools and techniques which promote improved psychosocial adjustment as well as enhanced productivity. Since few empirical studies have been performed which utilize the Personal Achievement Skills group approach, it is recommended that future research focus on the following areas:

1. Future research should attempt to obtain a larger sample size to improve representativeness and counter subject attrition. A larger sample size might also allow the inclusion of an unpretested group which could control for the interaction effect and improve generalizability.
2. Since there were high levels of variability in the data of the current study, future researchers should consider group administration of measures. As mentioned earlier, this procedure could allow the investigator to more effectively clarify the meaning and intent of test items and potentially reduce the variability in responses.
3. In a related consideration, future research should address the issue of how subjects with physical disabilities can more effectively complete the pretest and posttest measures. Investigators should consider tape recorded responses, computer scoring, or direct phone contact assessment. Such options may assist subjects to overcome physical limitation constraints and, consequently, increase the volume of data obtained by the researcher.
4. With regard to the measures used in future investigations, the following recommendations are offered:

- a. A follow-up measure should be used to assess the duration of treatment effects.
  - b. Efforts should be made to develop a more accurate and precise behavioral measure of productivity. Such a measure may involve having subjects chart their activities during an average week or month prior to and following the treatment period.
  - c. Researchers may wish to investigate alternative measures of social functioning which more accurately reflect an assessment of what was learned in the PAS communication skills component.
5. In working with individuals with physical limitations, efforts should be made to hold group meetings in a setting where subjects may already be involved in activities on a regularly scheduled basis, such as in a college, school, workshop, or rehabilitation setting. This type of arrangement could potentially increase attendance, reduce transportation problems, and allow for more frequent group sessions and an extended treatment period.
6. Future replications of this investigation should utilize therapists who do not also serve as researchers. With such an arrangement, the therapist could be blind to the instrumentation of the study and hence reduce the potential for experimenter bias.
7. Finally, since there appears to be a connection between self-esteem and body image, future investigations should consider exploring group methods which address body image concerns. In addition, because there were differences in the way men and women responded to the PAS approach, research in the

future should consider how gender issues for individuals with disabilities may impact treatment efficacy.

## CONCLUSIONS

Personal Achievement Skills represents a positive group treatment approach for the rehabilitation professional. Although subjects in the current investigation did make significant gains in self-esteem, further research is necessary to conclusively determine its efficacy in improving productivity, life satisfaction, locus of control, and social functioning. This research should involve (a) the extended training period originally specified by the PAS developers, (b) a larger sample size to improve representativeness and counter attrition, and (c) the inclusion of measures which would reduce high levels of variability and more accurately reflect subject changes. In addition, special consideration should be given to accommodating research subjects with physical limitations, especially with regard to the location of group meetings and the completion of outcome measures. With these factors considered, PAS training has the potential to assist individuals with spinal cord injury to improve their psychosocial functioning, goal attainment ability, and the quality of their lives.



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## APPENDICES

APPENDIX A

LETTER AND FLYER



July 12, 1991

Dear SCA Member:

My name is Roger Frank and I am pursuing a Doctorate in Counseling from Oregon State University. One of the requirements for the degree is to do a thesis or dissertation on a specific research topic. The focus of my research is to study the effects of a group counseling method called "Personal Achievement Skills." The major emphasis in the group will be on communication skills, value clarification, and, most importantly, setting and achieving goals (see enclosed flyer).

As a person with a spinal cord injury myself, I am very excited about the potential for this group. I recognize that, at times, it can be easy to fall into a "rut" or feel a lack of direction in one's life. This group counseling approach first helps participants to identify their needs and priorities and then translate them into meaningful personal goals. With that understanding, members can then schedule a series of clearly defined activities and steps toward achieving their goal.

I'm hoping that this type of group may be of interest to you or someone you know. The meetings will be two hours in length, once a week, over an 11 week period, beginning in September of 1991. There will be no charge for the group, and meetings will be held in the Portland area. The identity of participants and interaction within the group will be of a confidential nature. This group experience is not sponsored by or affiliated with the Spinal Cord Association, although the SCA does endorse its general methods and purpose.

If you are a person with a spinal cord injury and are at least one year post-injury, please call me at 555-5555 for further information.

Sincerely,

Roger Frank

## PERSONAL ACHIEVEMENT GROUP TO BEGIN

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Individuals with spinal cord injury are being asked to participate in a new research project to begin in September of 1991. The study will focus on a group counseling method designed to assist people in identifying, defining, and achieving personal goals. Major life skills introduced during the course of the group include:

1. **Communication Skills**—interacting with people in a positive and assertive manner.
2. **Value Clarification Skills**—examining needs and desires and translating them into meaningful personal goals.
3. **Goal Definition Skills**—defining a personal goal or objective so that it is obtainable.
4. **Problem Exploration Skills**—examining the factors that have interfered or are interfering with movement toward a desired goal.
5. **Program Development Skills**—scheduling a series of concrete steps and activities to achieve a personal goal.

The group's major purpose is to assist individuals to "break out of the rut." The idea is that people, with or without disabilities, tend to fall into habitual life patterns and occasionally need to examine and discuss where they are and where they are heading. For that reason, the group's approach places a major emphasis on defining goals as well as formulating the activities and steps needed to achieve one's goals.

*Group meetings will be held over an 11-week period in the Portland area. There is no fee for the group. Individuals with SCI who are at least one year post-injury are encouraged to call **Roger Frank** at 555-5555 for further information.*

**APPENDIX B****ACTIVITY QUESTIONNAIRE**

## Instructions:

Here are some items concerning activity. For each statement, estimate the average total times and the average total hours that you engage in the activity during a typical 7-day week. For some activities, it may be possible that you do not perform the behavior each week, but instead do it on a monthly basis. In such cases, divide the monthly amount by four and list that figure. If you are not involved in an activity, write 0.

	Average Total Times per Week	Average Total Hours per Week
1. Spend time with friends inside your home.	_____	_____
2. Spend time with friends at their homes.	_____	_____
3. Spend time alone or with others outside your home and in the community (i.e., movies, plays, concerts, sporting events, going to the shopping mall, restaurants, etc.).	_____	_____
4. Attend meetings or do volunteer work with special interest groups or organizations (i.e., clubs, churches, committees, etc.).	_____	_____
5. Seek information or read about educational training programs or course work or talk with educational advisors (teachers, professors, or college/school counselors, committees, etc.).	_____	_____
6. Attend classes at a high school, college, university, or special training center.	_____	_____
7. Spend time doing correspondence work, homework, or independent study inside your home.	_____	_____
8. Spend time traveling to and from an educational setting or training center.	_____	_____
9. Perform paid employment activities.	_____	_____
10. Seek information or read about jobs or careers or talk with vocational rehabilitation counselors or potential employers.	_____	_____

	Average Total Times per Week	Average Total Hours per Week
11. Spend time traveling to and from paid employment.		
12. Perform activities at your home for yourself such as laundry, cooking, cleaning, gardening, or yard work.		
13. Perform activities for others such as laundry, cooking, cleaning, gardening, yard work, making phone calls, child care, tutoring, or caring for others.		
14. Perform activities outside your home for yourself, such as running errands, shopping for groceries or other items, or sightseeing.		
15. Perform activities outside your home for others such as running errands or shopping for other items.		
16. Engage in physical exercise activities (sports, swimming, aerobics, etc.).		
17. Spend time on the telephone.		
18. Spend time in bed (other than sleeping).		
19. Spend time sleeping (including naps).		
20. Spend time watching television alone.		
21. Spend time involved in recreational activities (sightseeing, going to the park, picnics, etc.).		
22. Engage in hobbies or special interests (stamp or coin collecting, reading material of interest, working with computers, etc.).		
23. Engage in procrastinating behavior (putting off important tasks, avoiding responsibilities, daydreaming, etc.).		

## APPENDIX C

## THE AFFILIATIVE TENDENCY SCALE

## Instructions:

Please use the following scale to indicate the degree of your agreement or disagreement with each of the statements on the page below. Record your answers in the space provided to the left of the statement.

- +4 = very strong agreement
- +3 = strong agreement
- +2 = moderate agreement
- +1 = slight agreement
- 0 = neither agreement or disagreement
- 1 = slight disagreement
- 2 = moderate disagreement
- 3 = strong disagreement
- 4 = very strong disagreement

- \_\_\_\_\_ 1. When I'm introduced to someone new, I don't make much effort to be liked.
- \_\_\_\_\_ 2. I prefer a leader who is friendly and easy to talk to over one who is more aloof and respected by his followers.
- \_\_\_\_\_ 3. When I'm not feeling well, I would rather be with others than alone.
- \_\_\_\_\_ 4. If I had to choose between the two, I would rather be considered intelligent than sociable.
- \_\_\_\_\_ 5. Having friends is very important to me.
- \_\_\_\_\_ 6. I would rather express open appreciation to others most of the time than reserve such feelings for special occasions.
- \_\_\_\_\_ 7. I enjoy a good movie more than a big party.
- \_\_\_\_\_ 8. I like to make as many friends as I can.
- \_\_\_\_\_ 9. I would travel abroad starting my trip alone than with one or two friends.
- \_\_\_\_\_ 10. After I meet someone I do not get along with, I spend time thinking about arranging another, more pleasant meeting.
- \_\_\_\_\_ 11. I think that fame is more rewarding than friendship.
- \_\_\_\_\_ 12. I prefer independent work to cooperative effort.
- \_\_\_\_\_ 13. I think that any experience is more significant when shared with a friend.

- +4 = very strong agreement
- +3 = strong agreement
- +2 = moderate agreement
- +1 = slight agreement
- 0 = neither agreement or disagreement
- 1 = slight disagreement
- 2 = moderate disagreement
- 3 = strong disagreement
- 4 = very strong disagreement

- \_\_\_\_\_ 14. When I see someone I know walking down the street, I am usually the first one to say hello.
- \_\_\_\_\_ 15. I prefer the independence which comes from lack of attachments to the good and warm feeling associated with close ties.
- \_\_\_\_\_ 16. I join clubs because it is such a good way of making friends.
- \_\_\_\_\_ 17. I would rather serve in a position to which my friends had nominated me than be appointed to an office by a distant national headquarters.
- \_\_\_\_\_ 18. I don't believe in showing overt affection toward friends.
- \_\_\_\_\_ 19. I would rather go right to sleep at night than talk to someone else about the day's activities.
- \_\_\_\_\_ 20. I have very few close friends.
- \_\_\_\_\_ 21. When I'm with people I don't know, it doesn't matter much to me if they like me or not.
- \_\_\_\_\_ 22. If I had to choose, I would rather have strong attachments to my friends than have them regard me as witty and clever.
- \_\_\_\_\_ 23. I prefer individual activities such as crossword puzzles to group ones such as bridge or canasta.
- \_\_\_\_\_ 24. I am much more attracted to warm, open people than I am to stand-offish ones.
- \_\_\_\_\_ 25. I would rather read an interesting book or go to the movies than spend time with friends.
- \_\_\_\_\_ 26. When traveling, I prefer meeting people to simple enjoying the scenery or going places alone.



## APPENDIX D

## NOWICKI-STRICKLAND LOCUS OF CONTROL SCALE

## Instructions:

In this research project, we are trying to find out how participants feel about certain things. Please answer the following questions the way *you* feel. There are no right or wrong answers. Don't take too much time answering any one question, but do answer them all.

	YES	NO
1. Do you believe that most problems will solve themselves if you just don't fool with them?		
2. Do you believe that you can stop yourself from catching a cold?		
3. Are some people just born lucky?		
4. Most of the time, do you feel that getting good grades meant a great deal to you?		
5. Are you often blamed for things that just aren't your fault?		
6. Do you believe that if somebody studies hard enough he or she can pass any subject?		
7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?		
8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?		
9. Do you feel that most of the time parents listen to what their children have to say?		
10. Do you believe that wishing can make good things happen?		
11. When you get punished, does it usually seem it is for no good reason at all?		
12. Most of the time, do you find it hard to change a friend's (mind) opinion?		
13. Do you think that cheering more than luck helps a team to win?		
14. Did you feel that it's nearly impossible to change your parents' minds about anything?		
15. Do you believe that parents should allow children to make most of their own decisions?		
16. Do you feel that when you do something wrong there's very little you can do to make it right?		
17. Do you believe that most people are just born good at sports?		

	YES	NO
18. Are most of the other people your age stronger than you?		
19. Do you feel that one of the best ways to handle most problems is just not to think about them?		
20. Do you feel that you have a lot of choice in deciding whom your friends are?		
21. If you find a four leaf clover, do you believe that it might bring you good luck?		
22. Did you often feel that whether you did your homework had much to do with the grades you got?		
23. Do you feel that when a person your age decides to hit you there's little you can do to stop them?		
24. Have you ever had a good luck charm?		
25. Do you believe that whether or not people like you depends on how you act?		
26. Did your parents usually help if you asked them to?		
27. Have you felt that when people were angry with you it was usually for no reason at all?		
28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?		
29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?		
30. Do you think that people can get their own way if they just keep trying?		
31. Most of the time, do you find it useless to try to get your own way at home?		
32. Do you feel that when good things happen, they happen because of hard work?		
33. Do you feel that when somebody your age wants to be your enemy, there's little you can do to change matters?		
34. Do you feel that it's easy to get friends to do what you want them to?		
35. Do you usually feel that you have little to say about what you get to eat at home?		

	YES	NO
36. Do you feel that when someone doesn't like you there is little you can do about it?		
37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you were?		
38. Are you the kind of person who believes that planning ahead makes things turn out better?		
39. Most of the time, do you feel that you have little to say about what your family decides to do?		
40. Do you think it is better to be smart than to be lucky?		

## APPENDIX E

### LIFE SATISFACTION INDEX

## Instructions:

Here are some statements about life in general that people feel differently about. Using the scale below, read each statement on the list and circle the number which corresponds to how you feel. Please be sure to answer every question on the list.

5 = Definitely  
 4 = Probably  
 3 = Possible  
 2 = Probably not  
 1 = Definitely not

- |     |                                                                              |   |   |   |   |   |
|-----|------------------------------------------------------------------------------|---|---|---|---|---|
| 1.  | As I grow older, things seem better than I thought they would be.            | 1 | 2 | 3 | 4 | 5 |
| 2.  | I have gotten more of the breaks in life than most people I know.            | 1 | 2 | 3 | 4 | 5 |
| 3.  | This is the gloomiest time of my life.                                       | 1 | 2 | 3 | 4 | 5 |
| 4.  | I am just as happy now as before my injury.                                  | 1 | 2 | 3 | 4 | 5 |
| 5.  | My life could be happier than it is right now.                               | 1 | 2 | 3 | 4 | 5 |
| 6.  | These are the best years of my life.                                         | 1 | 2 | 3 | 4 | 5 |
| 7.  | Things I do now are as interesting to me as things I did prior to my injury. | 1 | 2 | 3 | 4 | 5 |
| 8.  | Most of the things I do are boring or monotonous.                            | 1 | 2 | 3 | 4 | 5 |
| 9.  | I expect some interesting and pleasant things to happen to me in the future. | 1 | 2 | 3 | 4 | 5 |
| 10. | I manage to live a good life despite my disability.                          | 1 | 2 | 3 | 4 | 5 |
| 11. | As I look back on my life, I am fairly satisfied.                            | 1 | 2 | 3 | 4 | 5 |
| 12. | Except for my disability, I would not change my life.                        | 1 | 2 | 3 | 4 | 5 |
| 13. | Compared to other people, I make a good appearance.                          | 1 | 2 | 3 | 4 | 5 |

5 = Definitely  
4 = Probably  
3 = Possible  
2 = Probably not  
1 = Definitely not

- |     |                                                                                |   |   |   |   |   |
|-----|--------------------------------------------------------------------------------|---|---|---|---|---|
| 14. | I have made plans for things I will be doing in the future.                    | 1 | 2 | 3 | 4 | 5 |
| 15. | When I think back over my life since injury, I haven't got what I wanted.      | 1 | 2 | 3 | 4 | 5 |
| 16. | Compared to other people, I get down in the dumps too often.                   | 1 | 2 | 3 | 4 | 5 |
| 17. | I get pretty much what I want out of life.                                     | 1 | 2 | 3 | 4 | 5 |
| 18. | In spite of what some people say, the lot of man is getting worse, not better. | 1 | 2 | 3 | 4 | 5 |

## APPENDIX F

## ROSENBERG SELF-ESTEEM SCALE



Please respond to each item by checking (✓) the most appropriate column on the right.

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
1. I feel that I'm a person of worth, at least on an equal basis with others.						
2. I feel that I have a number of good qualities.						
3. All in all, I am inclined to feel that I am a failure.						
4. I am able to do things as well as most other people						
5. I feel I do not have much to be proud of.						
6. I take a positive attitude toward myself.						
7. On the whole, I am satisfied with myself.						
8. I wish I could have more respect for myself.						
9. I certainly feel useless at times.						
10. At times I think I am no good at all.						

APPENDIX G

INFORMED CONSENT FORM

## INFORMED CONSENT AGREEMENT

This study involves psychological research to assess the effects of a structured group counseling method on persons with spinal cord injury. The expected duration of involvement for participants is 11 weeks. Those who agree to participate will meet in a group counseling setting for two hours, once a week, for an 11 week period. There will be a group leader who will guide participants through specific exercises. Those involved will take part in the exercises and interaction using participant workbooks. Group members will be tested on certain psychological measures prior to the beginning of the group, after the group terminates, and at a sixty day follow-up.

It is expected that participants will benefit from the experience as they may gain knowledge in communication skills, goal setting, and problem solving ability. There are no foreseeable risks involved with the experience. The identity of participants, individual member records, and interaction among group members will be of a confidential nature. Participation in the group is voluntary and group members may discontinue their involvement at any time without penalty or loss.

For questions regarding the research or research subjects' rights, participants may contact Dr. Joe Sendelbaugh, Western Oregon State College, 555-5555.

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Signature

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Date

## APPENDIX H

## BIOGRAPHICAL QUESTIONNAIRE

## BIOGRAPHICAL QUESTIONNAIRE

Name \_\_\_\_\_ Home Phone # \_\_\_\_\_

Home Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Marital Status:

- ☐ Single  
☐ Married  
☐ Separated  
☐ Widow or widower

Number of Children:

- ☐ None  
☐ One child  
☐ Two children  
☐ Three or more children

Date of accident or occurrence causing spinal cord injury: \_\_\_\_\_

Age at onset of accident or occurrence causing injury: \_\_\_\_\_

Level of injury \_\_\_\_\_ Cause of injury \_\_\_\_\_

How many years of education had you completed prior to your injury? \_\_\_\_\_

How many years of education have you completed since your injury? \_\_\_\_\_

How many years of paid employment had you completed prior to your injury? \_\_\_\_\_

How many years of paid employment have you completed since your injury? \_\_\_\_\_

Do you have another disability besides your spinal cord injury: ☐ Yes ☐ No

If yes, what other disability do you have? (Check one category and describe the disability):

☐ Physical disability (explain) \_\_\_\_\_☐ Mental disability (explain) \_\_\_\_\_☐ Emotional or psychological condition (explain) \_\_\_\_\_☐ Sensory impairment (explain) \_\_\_\_\_

## APPENDIX I

## NOTES TO PAS INSTRUCTORS AND SAMPLE EXERCISES

## NOTES TO INSTRUCTOR

Before you conduct Personal Achievement Training Skills Training...

Prospective PAS facilitators should complete a training program as a participant prior to conducting a PAS group. The experience will give the trainer a basic understanding and feel for each of the activities and for the program process itself. For persons who have had extensive training and/or experience in group counseling, prior exposure to the materials may not be necessary. Whether or not the trainer has experienced a PAS group as a participant, all program material should be thoroughly studied.

### 1

#### *Materials and Equipment*

The PAS Training Package is composed of:

1. Leader's Manual
2. Participant's Workbook
3. Leader's Introductory Materials, and
4. Training Audio Tapes

The instructor should have a complete set of materials and a Participant's Workbook for each participant.

The following equipment is needed to conduct the program:

1. Blackboard and chalk
2. Tape recorder (preferably with a good speaker), and
3. Colored marking pens

Each activity has a section designating whether or not equipment is needed for that activity.

### 2

#### *Guidelines*

Overlooking seemingly small details can seriously hinder your best efforts to present Personal Achievement Skills. Before leading a PAS group, review the following guidelines:

1. When the PAS program is initially implemented in your setting, you will need to inform and, often, sell the program to other personnel who are in charge of the participants' schedule of activities. To some extent, you will be dependent on instructors, counselors, etc. to facilitate the student's attendance and participation in the program.

2. Select a physical location for the PAS group that is comfortable and *free of distractions*. The setting must insure that confidentiality can be maintained, i.e., no one can hear or see group activities.
3. Have your materials ready. You will need: a Leader's Manual, a workbook for each participant, pencils for each participant, a blackboard, tape, a tape recorder on certain days, and colored marking pens.
4. Know your program development techniques discussed in Section IV of the Leader's Introductory Materials, "Developing Programs". Since you will be teaching others the basic principles involved in goal attainment, you need to be well versed in the area of program development.
5. Although the information contained in the Personal Achievement Skills Manual is adequate for conducting Personal Achievement Skills, you should strive to develop your expertise in skill areas taught in the program. Extra reading and studying of such techniques as interpersonal skills, goal setting, self-control of behavior, social learning theory, etc. will increase your effectiveness as a trainer.

### 3

#### *Selecting the Participants*

To date little empirical evidence is available concerning the appropriate recipients of the PAS program. Theoretically, the program would be beneficial for almost anyone, as anyone can grow. However, the program was developed for rehabilitation clients who need to gain skills in the area of goal setting and communications and who need to adjust to some major disruption in their life pattern.

PAS has been successfully used with: the blind, spinal cord injured persons, professional rehabilitation personnel, juvenile delinquents, the intellectually impaired, personality behavior disorders, etc. It is recommended that consideration be given to the following factors in selecting the participants.

1. As with any program of this nature, it would probably be most successful if volunteers were selected for the program. In many cases, conducting the program with volunteers is not feasible. The majority of the programs to date with rehabilitation clients have not been of a voluntary nature.



2. The program is much easier to conduct with participants who have basic reading skills. Many of the activities can be completed more quickly if the participants can read and study on their own. It is possible, however, for the instructor to read the activities, questions, lessons, etc. to the participants.
3. The program requires written responses. If the participants do not possess basic writing skills, it will be necessary for someone else to write for them on some of the activities.
4. The intelligence level of the group members should be given consideration. If there is a great variation in level of intellectual functioning, the materials, explanations, etc. may need to be provided at different levels of abstraction.

## 4

### *The PAS Group Leader*

The way the PAS group is conducted (i. e., what the instructor does) has perhaps more impact on participants' gains than any other variable. To help insure participant gains, the following guidelines are presented to guide the instructor's behavior throughout the program.

1. Modeling - This is the most critical instructor variable, especially early in the program (first 4 to 6 hours) when participants cue in closely on the instructor. However, throughout the program, the instructor should exhibit the orientation and behaviors desired in participants. The following modeling suggestions are offered.
  - A. Demonstrate each activity by going first when appropriate. (This will be noted in each unit.)
  - B. When demonstrating, be open, genuine, and sincere.
  - C. If you feel somewhat unsure of the inter-personal skills approach, attempt to label participants' feelings by responding with the format "You feel \_\_\_\_\_ because \_\_\_\_\_".
  - D. Consistently examine and, when appropriate, share your experiences related to the activities.
2. Verbal Reinforcement - The best method of increasing desired participant behavior is to reward the desired behavior when it occurs. Use "good", "fine", "that's great", etc. each time a participant makes a genuine effort at self-exploration or contributes to the group. Use "good try", "almost", etc. when the response is off target. Again, verbal reinforcement is especially important early in the program.

3. Do not get caught up in "grouping". In almost every case, the PAS program itself will achieve group cohesion and openness. Do not allow your desires for free expression to consume large quantities of time needed to teach other program skills. Group cohesion exercises and self-exploration exercises allow for ample free interaction. On the other hand, do not skip over group cohesion exercises in an effort to move quickly into goal setting and communication skills training. The strength of the group and, hence, the willingness of individuals to work on real problems, depends upon the feelings of trust and rapport developed among the participants. A meaningful Personal Achievement Skills experience begins with group cohesion.
4. In general, do not be overly permissive with the group. Impress upon them the importance of the overall experience and, hence, the necessity to adhere to the process of exploration, understanding and action.
5. Follow carefully the steps outlined in the Trainer's Manual, but know your program so that you can conduct sessions without constantly reading or referring to the PAS Manual.
6. Stay on schedule. If necessary, prepare 3 x 5 cards for each day's session outlining the skills you intend to cover and the amount of time for each.
7. Know your Program Development Techniques. Since you will be teaching others the basic principles involved in goal attainment, you need to be well versed in the area of program development.
8. You must manage the Triads and Diads. Closely monitor individual diads and triads to insure that all are staying on the task. Do not permit "in-groups" or "cliques" to form in the group. Unobtrusively break up triads or diads by assigning the groupings.
9. Impress upon those selecting PAS participants and the participants themselves the importance of consistent attendance and punctuality. Since PAS is a sequential learning and growth program, absenteeism is detrimental to the basic foundation of the program. Many problems related to punctuality can be avoided if the instructor models punctual behavior.
10. It is necessary for the instructor to be a participant, as well as a leader. Use the program as a tool for your personal growth. ("Faking it" will probably not stand the test of time.) Participants can sense even the best efforts to "fake it".

## 5

### *Handling of Participants' Workbooks*

1. Handle the participants' workbooks carefully. Collect the workbooks at the end of each session. Inform the participants that the workbooks will be kept in a safe place and handled confidentially. A student should be able to see his own workbook at any time.
2. Some activities are appropriate as homework. If you decide to have participants fill out some forms as homework, remove the form from the workbook. Provide a short period of time at the beginning of the next class to permit participants to "clean-up" their homework and give any who failed to do their homework time to complete it.

## 6

### *The Leader's Manual*

1. The leader's manual presents step-by-step guidelines for successful PAS training. However, it is recommended that each instructor attempt to modify the manual and, thereby, the program to be most suitable for his/her situation and clientele.
2. Use the extra space provided in the manual to make notes to yourself. Note examples, explanations, exercises, etc. which are most successful for you.
3. The suggested time frames are only rough estimates based on the experience of different trainers. Keep track of how long it typically takes you to complete each activity with the group and write down your average time in the block provided.

## 7

### *Group Size*

Group size should be limited to around eight participants. The more participants in your group the longer it will take you to complete many of the individual activities and the less time you will have to devote to individual needs and goals.

## 8

### *Interpersonal Skills Training*

The PAS instructor is required to consistently respond to participant statements in a manner that communicates genuineness, caring, and understanding. Additionally, the instructor is required to teach components of inter-personal skills training as a part of PAS. Hence, the instructor should attempt to secure interpersonal skills training as a part of his professional development.

## 9

### *Further Information*

For information related to either Interpersonal Skills Training or to Personal Achievement Skills Training and Materials, contact:

Director of Training  
Arkansas Rehabilitation Research  
and Training Center  
Hot Springs Rehabilitation Center  
105 Reserve Avenue  
P. O. Box 1358  
Hot Springs, Arkansas 71901

Phone: 501/624-4411

## SELF EXPLORATION: EXPLANATION

### Objective:

**TO IDENTIFY THE SPECIFIC WAYS TO BEHAVE TO BE HELPFUL TO OURSELVES AND OTHERS.**

**Note:**

- 1. Four behaviors are basic to exploring yourself, and to helping another person to explore.**

<p>Tell how you feel about yourself.</p> <p>I'm really down; I just can't seem to get anyplace.</p>	<p>Tell how you think about yourself.</p> <p>I don't know if I have what it takes to learn accounting. I'm thinking about quitting.</p>
<p>Tell how you feel about others.</p> <p>I enjoy being with you almost all the time, but it really irritates me when you get so silly.</p>	<p>Tell how you think about others.</p> <p>I get the idea that you really want to get along with your folks, but you don't know how.</p>

## GOAL SELECTION

### Objective

### TO SELECT AND BEHAVIORALLY DEFINE A GOAL.

### Instructions:

It's time to select a goal. In the space provided below write the goal you have selected. Remember, the goal should be:

- A. An important one to you,
- B. A personality type goal, and
- C. One that the group can see you grow on.

<b>MY GOAL</b>

Check with your neighbor and your group leader to see if they think your goal meets the three rules above. Get them to check the box if they think the goal meets all three rules.

Neighbor

Group Leader

Does your goal agree with the goal defining rules? If not, correct it below. Have your neighbor and group leader check the goal to see if they think it meets the rules.

<b>MY GOAL</b>

APPENDIX J

ATTENDANCE RECORDS

## PAS GROUP ATTENDANCE RECORDS

Session	Experimental Group 1	Experimental Group 2
	Number of Members Attending	Number of Members Attending
1	8	7
2	7	6
3	8	5
4	7	5
5	6	7
6	8	7
7	5	6
8	7	4
9	8	7
10	7	6
11	7	6



## APPENDIX K

RAW SCORES ON THE ACTIVITY QUESTIONNAIRE,  
AFFILIATIVE TENDENCY, LOCUS OF CONTROL,  
LIFE SATISFACTION, AND SELF-ESTEEM SCALE

## Activity Questionnaire—Raw Scores

Subject	PRETEST		POSTTEST	
	Times Per Week	Hours Per Week	Times Per Week	Hours Per Week
1	56.5	125.5	77	139
2	58	90.5	35	93
3	18	68	16	64
4	31.5	75	19	85
5	60	164	52	98
6	43	207	48	140.5
7	27	74	38	138.5
8	54	105.5	58	101.5
9	44	157	42	162.5
10	13	20.5	24	57.5
11	46	82	41.5	92
12	32	23.5	51	83
13	56	78	46	97
14	79	182.5	84	174.5
15	33	82.5	14.5	58
(END OF EXPERIMENTAL SUBJECTS)				
16	15	102	22	31
17	89	145.5	69	91.5
18	13	88	20	88
19	85	113	59	102.5
20	50	101	64.5	97.5
21	58.5	142.5	58.5	156.5
22	47	123	53	138
23	107	119.5	110	62
24	48	97	65	120
25	64.5	121	46	156.5
26	44	92	64	141
27	37	134	73	112
28	22.5	-22	19	10
29	46	110	43	104

## Affiliative Tendency—Raw Scores

Subject	Pretest	Posttest
1	32	35
2	54	28
3	41	-7
4	19	47
5	12	21
6	40	51
7	50	46
8	48	53
9	30	53
10	50	55
11	26	9
12	7	23
13	66	48
14	29	28
15	6	10
(END OF EXPERIMENTAL SUBJECTS)		
16	-12	-22
17	37	32
18	22	13
19	58	72
20	23	38
21	14	23
22	11	10
23	38	44
24	13	13
25	55	44
26	20	27
27	-9	32
28	42	42
29	24	25

## Nowicki-Strickland Locus of Control—Raw Scores

Subject	Pretest	Posttest
1	35	37
2	27	32
3	22	13
4	27	23
5	31	35
6	30	28
7	36	38
8	30	31
9	32	33
10	31	31
11	32	34
12	27	39
13	24	28
14	36	37
15	27	25
(END OF EXPERIMENTAL SUBJECTS)		
16	22	26
17	35	30
18	24	20
19	26	26
20	32	32
21	34	35
22	35	35
23	28	32
24	31	35
25	26	29
26	24	27
27	33	30
28	32	33
29	32	31

## Rosenberg Self-Esteem Scale—Raw Scores

Subject	Pretest	Posttest
1	51	55
2	25	38
3	17	24
4	44	47
5	59	56
6	55	56
7	37	53
8	49	51
9	59	60
10	39	46
11	57	54
12	48	53
13	44	43
14	36	38
15	39	41
(END OF EXPERIMENTAL SUBJECTS)		
16	17	11
17	51	44
18	39	36
19	47	52
20	33	41
21	58	60
22	52	49
23	58	60
24	48	42
25	53	57
26	34	51
27	59	53
28	42	38
29	54	51

## Life Satisfaction Index—Raw Scores

Subject	Pretest	Posttest
1	41	69
2	48	61
3	39	23
4	51	78
5	62	71
6	79	67
7	68	72
8	68	73
9	83	79
10	46	51
11	67	62
12	53	66
13	57	53
14	62	64
15	60	50
(END OF EXPERIMENTAL SUBJECTS)		
16	30	31
17	32	71
18	51	49
19	83	85
20	54	65
21	78	84
22	67	70
23	67	65
24	66	54
25	77	74
26	58	53
27	79	75
28	45	42
29	73	71