

THE EFFECTS OF PEER COUNSELOR  
TRAINING UPON STUDENTS WITH  
VOCATIONAL HANDICAPS

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## CHAPTER I

### THE RESEARCH PROBLEM

#### Introduction

The concept of peer counseling is relatively new to rehabilitation, and is particularly crucial in the area at this time. Since 1973 the major thrust of the rehabilitation movement has been to serve the severely disabled (Arkansas Rehabilitation Research and Training Center, 1974). This population represents the greatest challenge of the rehabilitation professional because the severely disabled have multiple problems which require attention. The use of peers to meet some of these needs has become an attractive alternative to many rehabilitation agencies. Peer counseling is now being used as a primary service in 92% of the independent living centers for the severely disabled (Arkansas Rehabilitation Research and Training Center, 1981).

Expanding the use of peer counselors in other areas of rehabilitation is being advocated by many persons in leadership positions in professional rehabilitation and in consumer organizations. The basic hypothesis of such advocacy is that the integration of effective and efficient peer counseling programs into the disability service delivery system will

significantly improve the rehabilitation service delivery system's capability to help persons with disabilities achieve and maintain a satisfying and satisfactory work role in the community of their choice. Finding new resources is a critical need since rehabilitation agencies are faced with a dilemma of providing services to an increasing number of disabled persons with decreasing financial support.

A study group of rehabilitation professionals addressed the issue of peer counseling as a resource during the Eighth Institute of Rehabilitation Issues in May of 1981 (Peer Counseling as a Rehabilitation Resource, 1982). At that time, the available literature consisted primarily of various program descriptions, philosophical rationales and proposed models with a few reports of service projects and pilot studies. The Annual Report of the National Council of the Handicapped (Akridge, Lundgen and Zishin, 1982) stated that there had been "no indepth studies with respect to peer selection, content, client acceptance, delivery methods or other relevant aspects".

As a consequence of the conference, Akridge and Rice (1982) co-authored a publication on peer counselor training which made several assumptions about peer counseling. They viewed effective peer counseling as an interpersonal helping process which was composed of a few well-documented basic helping skills. Furthermore, they stated that "concepts and skills most important for interpersonal helping can best be learned in a small semistructured group which provides

mutual support and a learning laboratory" p. 3.

While the skill training approach is not a new concept to rehabilitation, the psychoeducational model which provided the prototype for this training program has been most frequently indentified with the psychiatrically handicapped and rarely with other handicapped persons (Anthony, 1979). Those skill training programs which have been employed with handicapped persons frequently focused on cognitive or work-related skills.

The psychoeducational model was conceived by Guerney, Stolleck, and Guerney (1971) as an alternative to the medical practitioner model. This model, as reported by Brown (1980), is characterized by four fundamental tenets: (1) Debilitating psychological or emotional difficulties are not necessary for inclusion in psychoeducational programs. Desire to learn the skills being offered is the most essential prerequisite. (2) Participants are regarded as students; they are assumed to be capable of learning and applying the skills taught during the program. (3) Program facilitators function in the role of teachers teaching skills through a variey of learning experiences and (4) the goal of a psychoeducational program is to teach skills that can be applied to future as well as present-day problems.

#### Statement of the Problem

This model has been primarily used in mental health; however, it has received limited use in rehabilitation settings. It has been employed with handicapped persons, other than the

psychiatrically handicapped, to teach selected self-help skills, (i.e.) problem solving, assertiveness, stress management. These self-help skills have provided a valuable tool for handicapped persons who experience emotional and behavioral difficulties as barriers to their rehabilitation program (Farley, 1983). Available studies of training employing this model to teach interpersonal assertiveness and stress management with other populations have produced conflicting results (Grimes, 1977; Arnold and Parrot, 1978; Mishel, 1978).

Consequently, in this study the psychoeducational model will be utilized in a peer counselor training program to teach assertiveness skills, stress management skills, and interpersonal communication skills to students with a variety of disabilities. The study will investigate the effects of participation in peer counselor training upon these helping skills.

#### Purpose of the Study

It is beyond the scope of the study to evaluate the usefulness of the entire psychoeducational model for rehabilitation. Long term, careful analysis will eventually lead to support or rejection. Instead, this study will focus on the effects of training handicapped students in basic helping skills.

The purposes of the present study consist of the following:

1. To determine the differences, if any, in the interpersonal communication style of students with vocational handicaps who receive peer counselor training and those who

receive usual vocational training.

2. To determine the differences, if any, in the stress management skills of students with vocational handicaps who receive peer counselor training and those who receive usual vocational training.

3. To determine differences, if any, in the interpersonal communication skills of students with vocational handicaps receiving peer counselor training and those who receive usual vocational training.

4. To determine differences, if any, in the drop out rate of students with vocational handicaps receiving peer counselor training and those who receive usual vocational training.

### Research Questions

The present study asks these questions:

1. Does peer counselor training affect the interpersonal communication style of students with vocational handicaps?

2. Does peer counselor training affect the stress-management skills of students with vocational handicaps?

3. Does peer counselor training affect the interpersonal communication skills of students with vocational handicaps?

4. Does peer counselor training affect the drop out rate of students with vocational handicaps?

### Assumptions and Limitations

Assumptions underlying the study are that: 1) peer counselors are not currently utilized in the vocational rehabilitation process; 2) the normative data forms the Personal Skills Map and the Supervisor Questionnaire are valid for this population.

The limitations of this study are as follows: 1) the findings of this study may be generalized only to other students with vocational handicaps who are participating in vocational training; 2) the findings of this study are limited with respect to the time constraints imposed in this study.

### Definitions of Terms

For the purpose of the investigation and to facilitate understanding, the following terms and definitions will be employed:

Disability refers to a physical or mental condition which materially limits, contributes to limiting or if not corrected will probably result in limiting an individual's activities of functioning (Farley, 1975).

Severe disability refers to:

...a physical or mental impairment which seriously limits the functional capacities (mobility, communication, self-care, self-direction, work tolerance, work skills) of a handicapped individual to the extent that the person is unable, to a substantial degree, to cope with the physical or mental demands of gainful employment and whose rehabilitation normally requires multiple services (restorative, compensatory training, selective placement) over an extended period of time (Critical Issues Involved in the Rehabilitation of the Severely Handicapped, p. 3, 1974).

Peer refers to a disabled person who has attained disability related experiences, knowledge and coping skills (ARRCT, 1982).

Peer Counseling refers to help provided by a disabled person who has attained disability related experiences, knowledge and coping skills, and assists other disabled individuals and significant others in coping with their disability related experiences (ARRCT, 1982).

Peer Counselor refers to a disabled person who provides peer counseling services.

Interpersonal Assertiveness refers to an individual's perceived skill in expressing thoughts, feelings, and behaviors in a direct, honest, and appropriate manner as measured by the PSM.

Stress Management refers to an individual's perceived skill in managing stress and anxiety in a positive manner as measured by the PSM.

Personal Skills Map (PSM) is the instrument which will be used to assess the interpersonal assertiveness, aggression, deference skills and the stress management skills of the peer counselor training program participants.

The Carkhuff Index in Communication (CIC) is the instrument which will be used to assess the levels of interpersonal communication skills of the peer counselor program participants.

Handicapped refers to a physical or mental disability which impedes an individual's occupational performance by

preventing the individual from obtaining or retaining employment consistent with his capacities and abilities (Farley, 1975).

Interpersonal Aggression, a subscale of the PSM that refers to a personal communication style which is expressed by hostile and attacking behaviors.

Interpersonal Communication Skills refer to the facilitative and action-oriented conditions of empathy, respect, genuineness, self-disclosure, concreteness, confrontation, and immediacy which compose the basic ingredients of interpersonal communication (AARCT, 1982).

Interpersonal Communication Style refers to the style in which a person communicates and resolves interpersonal conflict. The Interpersonal Assertiveness, Aggression, and Deference scales of the PSM are used to identify the communication style of subjects.

Interpersonal Deference, a subscale of the PSM that refers to a personal communication style which is expressed in apprehensiveness, shyness, and over sensitivity to threat or conflict.

### Summary

In this chapter the research problem was introduced. This introduction was followed by a formal statement of the problem. The purpose of the study was presented followed by the four research questions being investigated in this study. The assumptions and limitations of the study were then delin-



eated. The chapter concludes with the definitions of terms used within the study.

Chapter II will review the relevant literature pertaining to the study. Chapter III will deal with the methodology of the study. The subjects and instrument used in the study will be described. The procedure used to carry out the investigation and the methods for analyzing the data will also be included in this chapter. Chapter IV will present the results of the analysis. Finally Chapter V will conclude the study with the summary, conclusions, and recommendations resulting from this research.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

Chapter II presents information and findings from reviewed literature that attempts to enhance understanding of the factors involved in the study. Available literature concerning the use of peer counseling in Rehabilitation will be discussed. The Training as Treatment Model and its association with interpersonal communication skills will also be discussed. Finally, literature concerned with assertiveness and self management will be presented.

#### Peer Counseling

The paraprofessional movement of the 1960's was initiated by the shortage of professionally trained helping personnel and of funding for employing such personnel (Mamarchev, 1981). The use of paraprofessionals, particularly in mental health and human services, grew as demands for such services increased. In addition, the paraprofessional movement experienced considerable growth when over 150,000 positions were established as a result of antipoverty, and other related legislature (Mamarchev, 1981). The sudden need for persons to fill these positions and the general public support for these pro-

grams resulted in the use of paraprofessionals. In the area of rehabilitation, the sudden need for service presented a problem in providing training. It was during this period in the mid-1960's when Truax and various others first explored the use of training and the paraprofessionals for providing support services in rehabilitation.

In September of 1966, Bregman presented a paper before a national meeting of rehabilitation center representatives. As a representative of the National Rehabilitation Counseling Association he advocated the use of paraprofessionals in support positions. During Bregman's presentation, he identified specific populations which could provide particularly attractive candidates. One of the populations included was that of former clients.

At the time, the use of paraprofessionals in support roles had not been sufficiently investigated. Later studies indicated that nonprofessionals could effectively provide a number of services traditionally provided exclusively by the professional counselors (Hoffman, 1976).

After a decade of research on the training and effectiveness of the counselor and the counseling process, Egan (1975) made the following assertion in The Skilled Helper:

There is a growing body of opinions and evidence ...that helpers with extensive training in psychological theory and a variety of academic credentials do not necessarily help, and that the paraprofessional helper, if properly trained in helping skills can be very effective even without extensive training in psychological theory (1975, p. 9).

Egan's (1975) position has been accepted by those who advocate the use of peer counselors in rehabilitation (Akridge and Rice, 1982; Ricks, 1980). Many of the advocates for peer counseling have cited supporting studies related to paraprofessional effectiveness for their position. Peer counseling as presently utilized in rehabilitation is also rooted in the self-help movement. Self-help groups provide support for individuals faced with similiar situations by allowing them to assume responsibility for their own conditions and to help others do the same (Sidel and Sidel, 1976).

These groups also offer a number of advantages when compared to the professional rehabilitation agency approach. Self-help groups provide less expensive service and frequently can provide services which are not being provided anywhere else in the community. For example mutual aid groups are particularly beneficial for rehabilitation since they address a large number of chronic disorders such as arthritis, diabetes, emphysema, and hypertension (ARRCT, 1981).

#### Living Centers Role of Peer Counseling

During the 1930's the "people's movement" emerged in rehabilitaiton and today provide the basis for the modern self-help or mutual aid group (Jacques and Patterson, 1983). It was the beginning of self-advocacy for the disabled. According to Wright, this self-help approach enjoys more acceptance within professional rehabilitation than ever before (1973). This is apparent in the 1978 Amendments to the

Rehabilitations Act (Rehabilitations, Comprehensive Services, and Developmental Disabilities Amendments of 1978, P. L. 95-602). Through this legislation, Congress set aside money for the development of independent living programs for the severely handicapped. These programs are multipurpose facilities which provide a broad range of assistance to the severely handicapped to help them achieve greater independence.

Roberts (1977) describes these programs as follows:

Independent living programs deal with the quality of life people lead in the communities; they are service and training centers, but primarily they are advocates working to develop a public awareness of the needs and capabilities of people with severe disabilities, as well as an awareness within the disabled individual of his potential for a life of greater participation and involvement (p. 22).

Max Starkloff, executive director of paraquad Independent Living Center in St. Louis, Missouri, identified the most important services provided by independent living centers (Nosek, Norita, Dart and Dar, 1982). According to Starkloff, they are peer counseling, role modeling by the disabled staff members and attendant care.

A recent survey of 224 Independent Living Centers across the country found that 67% were currently operating peer assistance programs with 13% of the centers planning to implement such programs (Akridge, 1983). The role of the peer counselor varied in each individual center to meet the needs of the occupants. For example, The Center for Independent Living in Berkely, California deliniates three important peer counseling functions: modeling, instruction, and informational link (Roessler, 1981). The most important of these func-

tions is modeling. The peer counselor projects the image of a professional person living independently. Finally, the counselor is an informational link between residents and the service-providing agencies within the community. These functions do not exhaust those available to the Peer Counselor. The study group of peer counseling (ARRCT, 1981) stated that the functions of peer counselors are dependent upon three things, the helper's qualifications, the type of assistance required and the setting in which the helper is working.

#### Selection of Peer Counselors

Selection of potential peer counselors is another salient issue encountered by rehabilitation professionals. The Eighth Institute of Rehabilitation Issues (ARRCT, 1981) made the following statement concerning selection criteria:

There are many varying opinions reflected in the literature concerning personal qualities which enhance a person's ability to be an effective helper. It is generally agreed, however, that individuals who have the greatest degree of success in helping relationships are those who possess good interpersonal or communications skills (p. 17).

Selection is frequently based upon additional factors which vary from program to program. In addition to screening applicants for minimum levels of communication skills, the Ann Arbor Center for Independent Living in Ann Arbor, Michigan employs three criteria for selection (Ricks, 1980). First, volunteers for the Ann Arbor program must be disabled. Second, there must be evidence they have adjusted to their disability. Third, they must have a genuine interest and be willing to

commit ample time to helping others to adjust to disability and loss. The Adult Independent Development Center in Santa Clara, California (Regier, 1980) includes education and experience among their criteria for selecting peer counselor trainees. Trainees in this California program are required to have an associates degree in a field related to counseling and/or two years experience and knowledge in working with disabled individuals (Regier, 1980).

### Training Peer Counselors

In addition to selection, the process varies for training peer counselors. As with the role functions of the peer counselors, training is dependent upon the particular needs of the sponsoring agency. Training formats for these agencies may include workshops, conferences, academic courses, on-the-job training, and in-service training (Griffin and Mertin, 1983). While training may involve a large number of topics, the major goal is to develop and strengthen the helping skills of the participants (ARRCT, 1981).

The Westside Community Center for Independent Living (WCIL) in Los Angeles, California, provides peer counseling training programs several times per year (Roessler, 1981). Training consist of nine two-hour sessions and the course includes the following topics: (a) utilization of resources at WCIL, (b) listening skills, (c) values and conflicts in the counseling setting, (d) problem solving and goal-oriented independent living, (e) crisis and emergency counseling, (f)

living with disability, (g) family counseling with the disabled, (h) sexuality issues with the disabled (Roessler, 1981).

The Ann Arbor Center for Independent Living uses the same training format at the Westside Center, however, the content of the programs differs. Training at the Ann Arbor Center addresses the following issues: (a) human nature and motivation, (b) communication skills, (c) interviewing, (d) feedback, (e) problem solving, (f) community and individual resources, (g) trainee evaluation, (h) rational emotive therapy and (i) human sexuality and disability.

In the peer counseling survey conducted by Akridge (1983), 82 percent of those independent living centers which currently provide peer counseling services conduct training for these peers. Training is conducted by center staff in 55 percent of these centers and by a combination of staff and outside consultants in 32 percent of the facilities (Akridge, 1983). According to the survey, the emphasis of training is equally divided between the counseling process and disability related experience.

#### Training Model as Treatment

While Guerney, Stolleck, and Guerney (1970) advocated the use of the psychoeducational model for clinical psychology in 1970, it was Carkhuff (1971) in human services, who popularized training clients directly in the skills they need to function in society. He proposed this training-as-treatment model, suggesting it could be a potent method of treatment. In 1976,



Carkhuff and Berenson differentiated training from teaching in this treatment process. The primary differences between the teaching and training approaches is the change of emphasis from training individual clients to teaching groups of clients. In addition, they emphasized that the helper-teacher must have a better understanding of the learning process and have sufficient skills in teaching and group management to facilitate skill learning with groups of clients (Carkhuff and Berenson, 1976).

Carkhuff and Anthony (1979) reviewed the skill-training programs which had been developed from the teaching-as-treatment model. Accordingly, they made the following observation:

...some of the most ingenious skills-training programs have been designed based on the skills of the insight-oriented approaches. For example, programs have been developed to systematically teach clients the same relationship skills that the effective helper uses...(Carkhuff and Anthony, 1979, p. 202).

#### Core Conditions

As early as 1967 researchers had established that all effective interpersonal processes shared a common set of conditions (Carkhuff and Berenson, 1967; Carkhuff, 1969). This set of conditions includes the facilitative conditions of empathy, respect, and genuineness as well as the action-oriented conditions of concreteness, self-disclosure, immediacy, and confrontation.

Without doubt, empathy is one of the most recognized constructs associated with psychotherapeutic success (Avery,

D'Augelli, Danish, 1976). Empathy maintains a particularly important role in peer counseling. Brammer (1977) describes the relative importance of empathy as follows:

A key characteristic of informal helpers is their empathy: people gravitate toward such informal helpers who listen and understand. Effective helpers have an ability to perceive the world the way others see it in terms of others' ideas and feeling. They are natural listeners. (p. 307)

Carl Rogers was the first to use the term empathy in therapeutic application (Hackney, 1967). He provided the following definition of empathy:

To perceive the internal frame of reference of another with accuracy, and with the emotional components and meaning which pertain thereto, as if one were the other person, but without ever losing the as if condition. (Rogers, 1959, p. 210)

Later, revisions were made to Roger's definition. First, Truax revised the definition to reflect a shift of emphasis from an internal perception to an externally observable skill (Hackne, H., 1967). In 1971, Carkhuff used empathic understanding in a manner which emphasized the relationship between the condition and the visible and behavioral expression of the counselor. He defined empathy in the following way:

...the ability to recognize, sense and to understand the feelings that another person has associated with his behavioral and verbal expressions, and accurately communicate this understanding to him. (p. 266).

Numerous studies have emphasized that empathy is an essential core condition for counselor effectiveness (Carkhuff, 1969b).

Although much less has been written concerning the other facilitative and action-oriented conditions, i.e. respect, genuineness, concreteness, self-disclosure, immediacy and con-

frontation, they are also important components of effective interpersonal communication. In fact, the Eighth Institute on Rehabilitation Issues (1981) reiterated the importance of these core conditions in the peer counselor process. The institute utilized the following definitions in their report ARRCT (1981).

Respect as defined by Carkhuff focused on the helper's caring, warmth, and positive regard for the client. In the report published by the Eight Institute of Rehabilitation Issues, respect was described as a manifestation of "appropriate warmth, interest, and acceptance which is communicated to the helper in a non-possessive, but caring manner" (ARRCT, 1981, p. 18-19).

Genuineness was among the three facilitative therapeutic conditions identified by Carkhuff and others. It involves the helper's honesty, realness and humanness. The establishment of a genuine relationship between counselor and client is at the base of the therapeutic process (ARRCT, 1981).

Concreteness, self disclosure, immediacy and confrontation compose the four action oriented conditions identified by Carkhuff and his associates. Concreteness as defined by Eighth Institute of Rehabilitation Issues involves the counselor's ability to direct "discussion into personally relevant material in specific and concrete terms" (ARRCT, 1981, p. 19). The counselor is thereby able to get a clearer view of the client to also conceptualize experiences in more useful terms.

Self-disclosure allows the counselor to share personal

experiences, feelings and attitudes with the client. The counselor serves as a model for the client to engage in self exploration and effective problem solving for the client (ARRCT, 1981).

Another of the action-oriented therapeutic conditions is immediacy. Immediacy is concerned with what is going on between the counselor and client at this point in time. Peer Counseling (1983) states that "immediacy occurs when the helper and the helpee are dealing directly with each other and their impact upon each other" (p. 19).

In addition to being an action-oriented therapeutic condition, confrontation is a therapeutic technique which is used to distinguish between a client's ideal versus real self. Confrontation by the therapist allows the client to see the discrepancy between his/her verbal expressions of self awareness and his/her observable or reported behavior (ARRCT, 1983).

The core facilitative and action-oriented therapeutic conditions popularized by Carkhuff and associates provide the basic ingredients of effective interpersonal helping (Peer Counseling, 1981). These empathic facilitation skills allow the helper to achieve the following specific helping tasks: (1) initiate and maintain a positively reinforcing verbal exchange; (2) achieve a mutual agreement about a proable goal; (3) explain alternative in terms of personal values and cultural expectation; (4) try alternative and evaluate the consequences (Akridge and Rice, 1983).

Carkhuff and Berenson (1967) identified the relationship

between the helper's level of communications of these core conditions and the score of the helpee of a variety of outcome indexes. Clients of counselors who offered high levels of these conditions improved while clients of counselors who offered low levels of these conditions showed no improvement or deteriorated (Carkhuff, 1969a). Studies have also indicated that the level of communication of these core conditions is not a fixed characteristic; furthermore, they have shown paraprofessionals can be trained to function at higher levels (Carkhuff 1969a,b; Truax and Carkhuff, 1967; Truax and Mitchell, 1971).

#### Assessment of Communication

In 1971, Carkhuff questioned the validity of using personality tests for assessing these communication skills. He recommended using two indexes, the Index of Communication and the Index of Discrimination (Carkhuff, 1969a, b). Studies (Carkhuff, 1969a, 1971; Carkhuff and Banks, 1970; Carkhuff and Bierman, 1970; Carkhuff and Riffin, 1970) reported that post-test group gains on these indexes paralleled gains of the ability of the trainee to communicate with others.

The Carkhuff Index of Communication (CIC) has been employed in several rehabilitation studies to assess the level of functioning of the counselor as well as the client. Anthony and Carkhuff (1969) used the CIC to assess the effects of rehabilitation counselor education upon trainee functioning. Significant differences between trainees and controls were

found after completion of training. In another study, Crisler (1972) conducted an interpersonal skills training program with selected paraprofessional employees of the Georgia Rehabilitation Center in Warm Springs, Georgia. After 40 hours of formal training, the participants showed significant gain in functioning as measured by the CIC.

A later study employing the CIC was conducted with 20 severely disabled clients enrolled in the same comprehensive rehabilitation center (Crisler and Long, 1978). Subjects participated in a Human Relation training program. A significant improvement in the level of participants interpersonal functioning was recorded after the completion of training. Selected items for the CIC were used by Evans and Livneh (1982) to investigate the effects of peer counseling training program involving eight physically disabled persons. Participants demonstrated significant improvements in communication skills.

#### Communication Style

While communication facilitation skills are important to the effective helper, the helper's communication styles determine how they communicate and resolve interpersonal conflict under stress (Nelso and Low, 1981). Grimes (1977) purports that rehabilitation clients generally tend to be passive and deferent in their style of communication. Since interpersonal assertiveness is often required to engage the person in a helping relationship and to provide honest and helpful feedback.

an assertive communication style is preferable to an aggressive or deferent style. According to Akridge (1983) helper assertiveness in conjunction with empathy can result in helpee change. In addition, modeling of assertiveness by the helper has proven to be a potent method for teaching assertiveness skills. Moreover, the benefits of modeling assertive behavior can be provided by participants within a training group (Alberti, 1974).

In fact, within the last few years the assertiveness training group has become the treatment of choice (Alberti and Emmons, 1974). Assertiveness training best lends itself to this approach because it provides an opportunity for role playing and feedback among the group members. Since social situations involving several people often create anxiety, participants can be taught to deal with these situations within the less threatening environment of the therapy group (Alberti, 1974).

Assertiveness training has developed from techniques associated with limited settings, such as coping with phobia, to its present-day form, encompassing a number of techniques and dealing with a variety of behavior. In fact, Alberti (1977) outlines this development as follows:

Assertive behavior training is indeed a process which exists with an underdeveloped theoretical base. Although founded within the general framework of behavior therapy and characterized initially...as a counter-conditioning procedure for anxiety, it has integrated substantial material from social learning theory..., "gestalt" theory...humanistic-existential theory...and the concepts of universal human rights...(p. 23-26)

Salter first used the term assertiveness with its currently accepted meaning as reported by Wolpe (1958). While he described assertiveness as "more or less aggressive behavior," he added that it was "the outward expression of friendly, affectionate and other non-anxious feelings."

Since that time, other definitions of assertiveness and assertive behavior have appeared in the literature. One such definition proposed by Alberti and Emmons in Your Perfect Right (1974) defines assertive behavior in the following manner:

Behavior which enables a person to act in his (her) own best interests, to stand up for himself (herself) without undue anxiety, to express his (her) honest feelings comfortably, as to exercise his (her) own rights without denying the rights of others...(p. 27)

Nelson and Low (1981, p. 1) conceptualized interpersonal assertiveness as a "personal communication skill indicated by direct, honest and appropriate expression of thoughts, feelings, and behaviors."

Several studies have investigated the effects of assertiveness skills training upon clinical as well as nonclinical populations. Cosgrove (1980) randomly selected two groups of subjects from thirty undergraduates enrolled in an upper division rehabilitation course. The experimental group participated in an assertiveness training program. Following training, the experimental group evidenced a significant increase in assertive response probability and a significant decrease in the reported degree of discomfort. In another study (Mishel, 1978) fourteen physically handicapped persons



were recruited from college and noncollege populations for assertiveness training. Findings showed that participants made significant gains on behavioral and self-reported measures of assertiveness.

Additional skills training programs which emphasize assertiveness training have been developed to prepare rehabilitation clients for job interviewing and employment (Arnold and Parrott, 1978; Keith, Engelkes, and Winborn, 1977; Pinto, 1970; Kneipp, Vandergoot, and Lawrence, 1980). These programs generally incorporated instruction, modeling, practice, and discussion into training. Although the outcome measure of assertiveness training on job interviewing and employment have been mixed, when other salient dimensions such as anxiety management and career development skills are controlled, results have been generally positive.

Arnold and Parrott (1978) employed an experimental group training approach to teach psychologically disabled rehabilitation clients stress-management and interpersonal skills. The purpose of the training was to reduce job interview related stress and provide participants with additional skills in assertive communication as well as nonverbal communication. No significant difference in interview anxiety was found between the experimental and the conventional groups. However, a significant difference between groups with respect to assertive communication indicates that the experimental procedure was superior to the traditional training group in teaching assertive job interview behavior.

## Self Management

Stress is an essential feature of life. While Selye (1974) noted that a certain amount of stress was required to regulate body functions, he recognized that excessive acute or chronic stress forced upon an individual produces harmful side effects. He referred to this type of extreme stress as distress.

In 1974, Selye defined stress and "the non-specific response of the body to any demand made upon it" (p. 27) consequently both pleasant as well as unpleasant experiences are associated with stress and, as such, he contends that stress cannot be avoided.

Selye (1974) hypothesized that deprivation of stimulation and excessive stimulation are both accompanied by increasing stress and frequently result in distress. Experiments on sensory deprivation have shown that participants experience discomfort and disorientation and report feelings of anxiety and depression when deprived of normal environment stimulation (Benson, 1976; Tanner, 1976; Schafer, 1978).

The negative effects of excessive stimulation upon the body has been well-documented by researchers (Selye, 1951, 1971; Benson, 1976). When confronted with extreme stress a person will elicit a natural response to counteract the perceived threat. This response is frequently referred to as the fight or flight response and is associated with physiological changes, i.e. increased metabolism, blood pressure, heart rate, and breathing rate (Goodwin, 1980). The stress response is pattern-

ed and involves all systems of the body. Researchers have observed that activation of any part of this response pattern tends to elicit the total stress response (Selye, 1974; Benson, 1976; Schafer, 1978; Strobel, 1982).

In addition, excessive stress can affect the emotional, intellectual and behavioral responding of an individual (Schafer, 1978). On these dimensions people clearly differ in their response to stress. Some individuals can cope with severe stress while others experience upset or physical illness. These differences may be attributed to personal qualities possessed by the individual; these qualities provide a filter which eases or exaggerates the impact of incoming stressors. Schafer (1978) refers to this as a stress filter.

The stress filter is the mechanism which allows individuals to eventually adapt to changing stresses. Even with this adaptation individuals are not comfortable unless their perceived level of stress falls within an individually specified range. Schafer (1978) refers to this range as the comfort zone. According to Schafer (1978), people vary greatly in the amount of stimulation they find comfortable. Some prefer a fast-paced life while others are happier with a slower pace. In addition, the size of this comfort zone varies among individuals (Schafer, 1978). Those with relatively large comfort zones can tolerate alternating periods of high signs of distress. Individuals with smaller comfort zones will feel the effects of stimulation above or below their comfort level.

Helppees in crisis situations are frequently in a state of distress. To avoid over identifying with the strong emotions being experienced by some helppees, the helper must be able to relax on cue (Akridge, 1983).

The effects of stress upon counselor performance have been investigated. Bowman and Roberts (1978) found that as counselor anxiety increased, counselor effectiveness tended to decrease. In fact, several measures of physiological arousal, including skin conductivity, skin temperature of the body's extremities, measures of muscle tension taken five minutes prior to the helping session have provided some of the strongest predictors of counseling effectiveness (Akridge, 1983).

Over the years a number of techniques have been developed which purport to reduce the effects of stress. These include the following: J. H. Schulte's autogenic training, Edmund Jacobson's clinically standardized meditation, Herbert Benson's relaxation response, Lester Fehmi's open focus, George Stoebell's quieting reflex, and biofeedback most frequently associated with Neil Miller.

More recently, stress management training programs for disabled individuals have been developed (Arnold and Parrott, 1978; Garrison, 1978). Findings, however, have been mixed. In fact, Arnold and Parrott (1978), as previously discussed, reported there is no difference in the level of stress of participating and non-participating subjects.

## Summary

In the present chapter the literature pertaining to peer counseling in the field of rehabilitation was reviewed. The role of peer counseling in the independent living centers was discussed. The selection and training of peer counselors was also considered. It was found that 67% of the Independent Living Centers across the country were currently operating peer assistance programs with 13% of the centers planning to implement programs (Akridge, 1983).

The training-as-treatment model popularized by Carkhuff (1971) was described and studies which utilized his model for training helpers in the core conditions of communication were reviewed. These core conditions include empathy, respect, genuineness, concreteness, self-disclosure, immediacy and confrontation. The Carkhuff Index of Communication (1969a, b) an instrument used to assess the communication skill of counselors, was presented and the research studies employing the instrument were presented.

Finally, the general research pertaining to assertiveness and self-management was discussed. Studies which had involved rehabilitation clients or other disabled populations were presented. Contradictory results were indicated (Grimes, 1977; Arnold and Parrott, 1978; Mishel, 1978).

## CHAPTER III

### METHODOLOGY

#### Introduction

The effects of peer counselor training upon selected helping skills is important information in determining the usefulness of peer counselors in the rehabilitation process. Accordingly, it is the purpose of the present study to determine differences, if any, in the selected helping skills of students with vocational handicaps who participate in peer counselor training and those students who receive usual vocational instructions.

#### Subjects

Subjects of the present study included disabled students enrolled in vocational training in a state-supported rehabilitation center in the southwestern region of the country. A list of students who had completed vocational evaluation no longer than two months and no less than one week prior to the selection of subjects was obtained from the Director of Counseling. Subjects with reading levels above the fourth grade, seventh month were notified by their vocational instructors and were asked to attend an orientation session. After the orientation, those who volunteered were randomly assigned to

to either treatment or control groups.

The ages of the subjects who participated in the original study ranged from 17 to 56 with the mean age for the experimental group being 30.8 and the mean for the control group being 29.5. The sample of subjects was composed of 11 females and 14 males. Of the 15 subjects assigned to the treatment group 13 actually participated in the training. Of the 12 subjects assigned to the control group only 10 completed the program and the post tests.

The ages of the subjects who participated in the replication study ranged from 18 to 53 with a mean age of 33.7 for the experimental group and mean age of 22.1 for the control group. The sample of subjects was composed of 8 females and 12 males. Of the 13 subjects assigned to the treatment group 11 actually participated in the training. Of the 14 subjects assigned to the control group only 10 completed the post tests.

## Instruments

### Personal Skills Map

The Personal Skills Map (PSM) was developed to assess an individual's perceived level of selected personal skills. Fourteen scales (representing three major dimensions of personal effectiveness: Intrapersonal, Interpersonal, and Career/Life Management) are utilized to measure these 11 skills. In addition to measuring selected skills, the PSM determines a person's current interpersonal communication style (i.e., assertive, aggressive, or deferent) and his/her readiness for personal change.

The PSM-A (Adolescent Version) is the form of the PSM developed for use with secondary school studies and for adults where reading level is a factor. Where the overall readability level of the PSM is tenth grade, the overall readability level of the PSM-A is fifth grade.

The PSM was standardized for 1,400 adult males and females selected from a cross section of education, counseling, and business populations (Nelson and Low, 1979). The initial standardization sample employed by Nelson and Low (1979) for the PSM-A consisted of 1,157 males and females age 13 and above.

Validity. The major test of validity of the PSM was to determine how effectively it could differentiate individuals functioning at healthy, normal, and below-average personal skill levels (Nelson and Low, 1979). Such validation was accomplished by administering the instrument to two research groups. One group (N=26) was composed of professional helpers in the behavioral sciences. Another group (N=26) of 26 was comprised of individuals seeking psychotherapy services at an outpatient treatment facility. Means, mean differences, and  $f$  values were computed from comparison on the two groups on each PSM scale. The obtained differences were at or beyond the 0.05 level of confidence accepted as significant. The professional helpers achieved significantly higher than the therapy group. Nelson and Low (1979) concluded that the PSM effectively discriminates personal skill levels of professional, normal adults, and clinical populations.

The validity of the PSM was further established by com-



pleting scale-by-scale correlations for the PSM and the Personal Orientation Inventory (POI), which was developed by Shastrom in 1962; the Edwards Personal Preference Schedule (EPPS), which was developed by Edwards in 1953; the Sixteen Personality Factor Questionnaire (16PF), which was developed by Cattell in 1956; and the Minnesota Multiphasic Personality Inventory (MMPI), which was developed by Hathawas and McKinley in 1943. The POI, the EPPS, and the 16PF all purport to measure factors of the healthy or normal personality, while the MMPI was designed for measuring pathology. Scale-by-scale correlations between the PSM and the POI and MMPI indicate that the PSM measures similar aspects of the mental health (Nelson and Low, 1979).

The Validity of the PSM-A for assessing the skill levels of handicapped vocational students was determined through content analysis. A panel composed of experts in the area of rehabilitation counseling judged the content of the PSM to be appropriate for this usage. See Appendix A for members of the panel.

Reliability. Test-retest reliability coefficients were obtained for the PSM scales based on an undergraduate college student sample (N=24). The reliability coefficients ranged for 0.64 for the Empathy Scales to 0.94 for the Sales Orientation Scales (Nelson and Low, 1979). Since reliability coefficients above the level of 0.60 are acceptable for research purposes (Nunally, 1972), all scales fall within acceptable limits for behavioral science research.

### Carkhuff Index of Communication

The Carkhuff Index of Communication (CIC) was designed to assess the level of communication in prospective helpers (Carkhuff, 1969). The CIC is composed of a pretest and post-test. Both consist of sixteen different stimulus statements. These audio taped statements represent varied client affect and content in different problem areas.

A subject's response to each item is assigned a rating of one through five on a Likert-type scale. Each of these ratings are described as follows: (1) none of the core conditions are communicated to any noticeable degree in the person; (2) some of the conditions are communicated and some are not; (3) all of the conditions are communicated at a minimally facilitative level; (4) all of the conditions are communicated and some are communicated fully; (5) all of the core conditions are fully communicated simultaneously and continually. Low ratings are associated with low levels of interpersonal communication while high ratings represent increasing levels of interpersonal communication.

Validity. The validity of the CIC has been supported by a number of studies (Carkhuff, 1969a; Hefele and Hurst, 1972). According to Carkhuff (1969a), factor analysis of subject responses revealed that one factor accounted for approximately two-thirds of the variability of the index. All variables had significant loadings of this factor. Carkhuff (1969a) concluded that "all tests were essentially measuring the same variable 16 times" (p. 103).

In reviewing studies which employed the CIC, Hefele and Hurst (1972) concluded that construct validity for the scale had been established by a number of studies. According to Hefele and Hurst (1972) early studies indentified a relationship between the communication skills of the therapist and the change in the skills of the client when rated on similar dimensions of interpersonal functioning. Later studies also established a relationship between the trainer's level of facilitative functioning (Carkhuff, 1969b). These studies indicated that trainees who had trainers who were high level communicators increased their level of functioning while those who had trainers who were low level communicators decreased their level of functioning.

Reliability. A rate-rerate procedure has been employed in a number of studies to determine the reliability of the CIC (Hefele and Hurst, 1972). Hefele and Hurst reported rate-rerate reliability to be generally in the 0.80's and 0.90's. Interrater agreement has shown correlations of 0.80 and 0.90 among raters who received training (Carkhuff, 1969a; Avery et al., 1976).

### Supervisor Questionnaire

The Supervisor Questionnaire (SQ) was developed to assess the supervisor's impression of an employee's behavior (i.e. passive, aggressive, or assertive) in various situations (Meien and Pulichene, 1980). The SQ was initially developed by the research and development staff of a large multi-

national energy producing corporation to measure the effects of a recently implemented assertiveness training program upon women, minorities, and short-service employees.

The instrument uses a five-point Likert-type scale to allow the supervisor to rate a series of statements regarding the employee's behavior in their typical work setting. The supervisor's impression of the student's behavior in various situations was rated using the following descriptors: 1= Never or rarely observed, 2= Seldom observed, 3= Sometimes observed, 4= Usually observed, 5= Almost always or always observed. The SQ consists of a total of 21 items. Each item is rated with a score of one through five. Each questionnaire generates three scores: a score for passive behavior, one for aggressive behavior, and another for assertive behavior. Seven items are summed to obtain each of these scores.

The standardization sample for the SQ included 36 employees participating in assertiveness training groups (Meien and Pulichene, 1980). The resulting means were as follows: 19.79 for passive behavior, 13.79 for aggressive behavior, and 20.79 for assertive behavior.

Validity and Reliability. The validity of the SQ for assessing the supervisor's rating of employee behavior was determined through content analysis. A panel composed of experts in the area of rehabilitation counseling has judged the SQ to be appropriate for this usage. In addition, reliability of the SQ was determined by calculating the coefficient alpha. An overall reliability of 0.826 resulted.

## Research Design

The design utilized in this study was the pretest, post test, and control group design. Two groups were formed. Subjects in group one, the experimental group, received peer counseling training while subjects in group two, the control group, received regular vocational instruction. This design was chosen to insure comparability of the groups.

The nature of the instruments and the large number of test items in conjunction with the six weeks that elapsed between pre- and post-testing, should reduce possible interactions of testing and treatment, thus producing no major threat to the internal validity of the study. External validity is limited, however, to the population from which the sample was selected.

## Procedure

All previously selected subjects were requested to attend an informational meeting. During this meeting, Dr. Robert Akridge and Dr. Douglas Rice of the Arkansas Rehabilitation Research and Training staff and the author discussed the HSRC peer counselor training program and explained the purpose of the present study. The presentors answered all questions. Those students who were interested in participating in the study were asked to remain after the presentation. From all those remaining, twenty-four were randomly assigned to the two groups. Four scales from the Personal Skills Map were administered to those students who were selected. They include the

following: the assertiveness scale, the aggressiveness scale, the deference scale, the empathy scale, and the stress management scale.

the following day the twenty-four subjects were randomly assigned to either the experimental or control group. Items from the Carkhuff Communication Index were then administered. The peer counselor training group was conducted jointly by one of the developers of the peer counseling program and by a professional rehabilitation counselor at HSRC. Training consisted of two 3-hour sessions per week (see Appendix B). Subjects in the control group participated in their usual vocational training activities during this time period (see Appendix C).

Within the first week of training the Supervisor Questionnaire was distributed to each student's vocational instructor for completion. During the final session, subjects from both the experimental and control groups met. The same instruments employed in pretesting were used in post-testing subjects. The Supervisor Questionnaire was again distributed to the vocational instructors of all participants. A new sample of subjects was randomly selected from the newly admitted HSRC student population and the entire procedure was repeated. The coauthor of the peer counseling training program served as facilitator for this replication study.

#### Analysis of Data

An analysis of covariance was used to determine if there

were significant differences between the means of the treatment and control groups with respect to interpersonal communication style and stress management skills. The Mann Whitney U was employed to analyze data resulting from the CIC. Since these scores are derived from rating, they may not represent true interval-level data. In such cases, Kirk (1972) recommends the use of the nonparametric statistic.

### Hypotheses

- 1) There is no significant difference between the interpersonal communication style of students with vocational handicaps who receive peer counselor training and those who receive usual vocational instruction after covarying for pregroup differences.
- 2) There is no significant difference between the stress management skills of students with vocational handicaps who receive peer counselor training and those who receive usual vocational instruction after covarying for pregroup differences.
- 3) There is no significant difference between the interpersonal communication skills of students with vocational handicaps who receive peer counselor training and those who receive usual vocational instruction.
- 4) There is no significant difference between the drop-out rate of students with vocational handicaps who receive counselor training and those who receive usual vocational instruction.

## CHAPTER IV

### RESULTS

#### Results of Analysis

The data collected for this study is presented in this chapter. The data is analyzed as described in Chapter III. Results will be presented for each null hypothesis.

HYPOTHESES I: There is no significant difference between the interpersonal communication style of students with vocational handicaps who receive peer counselor training and students who receive usual vocational instruction after covarying for pre-group differences.

A one way between group analysis was performed to test Hypothesis I and II. Pre-group scores were covaried. Analyses were performed by SAS ANCOVA weighting cells by their sample sizes in order to deal with unequal-cell sample sizes.

An analysis of the PSM scales revealed that pretest scores significantly accounted for adjustment of the Assertiveness and Aggressiveness, but not the Deference post test scores as seen in Tables I, III and V. After adjustment by covariates on the PSM scales it was found that peer counselor training did not significantly effect student communication style. The F scores obtained for each scale were 1.46 for Assertiveness, 0.84 for Aggression and 0.27 for Deference; none of which ex-



ceeded the table value of 4.30 for significance. The mean score of the experimental group was lower than the mean score of the control group on each of the scales (see tables II, IV, and VI).

TABLE I  
ANALYSIS OF COVARIANCE OF INTERPERSONAL ASSERTIVENESS

Source of Variance	Adjusted SS	df	MS	F
Treatment	28.40	1	28.40	1.46
Covariate Pretest	1082.82	1	1082.82	55.86*
Error	387.70	20	14.38	

\*p > 0.05

TABLE II  
ADJUSTED AND UNADJUSTED MEANS ON INTERPERSONAL ASSERTIVENESS  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	29.73	28.08
Control	10	32.05	34.20

TABLE III  
ANALYSIS OF COVARIANCE OF INTERPERSONAL DEFERENCE

Source of Variance	Adjusted SS	df	MS	F
Treatment	43.36	1	43.36	0.84
Covariate Pretest	143.33	1	143.33	2.78
Error	1032.98	20	51.60	

TABLE IV  
ADJSUTED AND UNADJUSTED MEANS ON INTERPERSONAL DEFERENCE FOR  
TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	16.02	15.23
Control	10	18.97	20.00

TABLE V  
ANALYSIS OF COVARIANCE OF INTERPERSONAL AGGRESSION

Source of Variance	Adjusted SS	df	MS	F
Treatment	15.52	1	15.50	0.27
Covariate Pretest	243.14	1	243.14	4.16*
Error	1168.28	20	58.40	

TABLE VI  
ADJUSTED AND UNADJUSTED MEANS ON INTERPERSONAL AGGRESSION FOR  
TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	10.13	8.92
Control	10	11.93	13.50

An analysis of the SQ scales revealed that pretest scores significantly accounted for adjustment of the Assertiveness, Deference and Aggression post test scores as displayed in Tables VII, IX and XI. The adjusted mean scores on the SQ did not significantly discriminate between the program participants and the controls on the Deference and Assertiveness scales. However, significance was obtained on the Aggression scale with  $F(1,22)=6.25$ ,  $p > 0.05$ , indicating that the treatment group was treated significantly more aggressive than the control group. The adjusted mean score of the control group on all three of the scales indicating that the control group was more assertive, deferent, and aggressive than subjects in the treatment group. (See Tables VII, X, and XII). On the instructor rated scales the experimental group was more assertive, deferent, and aggressive than the control group. There was significant difference between the communication style of the group which participated in the peer counseling program and the group which received no unusual treatment.

TABLE VII  
ANALYSIS OF COVARIANCE OF INTERPERSONAL ASSERTIVENESS  
AS RATED BY INSTRUCTOR

Source of Variance	Adjusted SS	df	MS	F
Treatment	1.48	1	1.48	0.07
Covariate Pretest	432.79	1	431.79	19.0*
Error	454.57	20	22.70	

\*p > 0.05

TABLE VIII  
ADJUSTED AND UNADJUSTED MEANS ON INTERPERSONAL ASSERTIVENESS  
FOR TWO TREATMENT CONDITIONS AS RATED BY INSTRUCTOR

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	15.33	22.96
Control	10	11.97	25.20

TABLE IX  
ANALYSIS OF COVARIANCE ON INTERPERSONAL DEFERENCE  
AS RATED BY INSTRUCTOR

Source of Variance	Adjusted SS	df	MS	F
Treatment	27.36	1	27.36	1.75
Covariate Pretest	62.92	1	62.92	4.02*
Error	311.98	20	15.60	

\*p > 0.05

TABLE X  
ADJUSTED AND UNADJUSTED MEANS OF INTERPERSONAL DEFERENCE  
FOR TWO TREATMENT CONDITIONS AS RATED BY INSTRUCTOR

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	18.31	18.23
Control	10	16.10	16.20

TABLE XI  
ANALYSIS OF COVARIANCE OF INTERPERSONAL AGGRESSION  
AS RATED BY INSTRUCTOR

Source of Variance	Adjusted SS	df	MS	F
Treatment	62.98	1		6.25*
Covariate Pretest	192.73	1		19.11*
Error	432.60	20		10.08

\*p > 0.05

TABLE XII  
ADJUSTED AND UNADJUSTED MEAN INTERPERSONAL AGGRESSION  
FOR TWO TREATMENT CONDITIONS AS RATED BY INSTRUCTOR

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	15.33	15.00
Control	10	11.97	12.40

HYPOTHESIS II: There is no significant difference between the stress management skills of students with vocational handicaps who receive peer counselor training and those who receive usual vocational instruction after covarying for pre group differences.

An analysis of covariance was used to determine if the two groups were significantly different with respect to stress management skill. Pretest scores were significant in accounting for adjustment of the Stress Management post test scores (see Table XIII). Although the post test scores did not reach significance, the experimental group obtained a higher mean score (see Table XIV). There was, however, no statistically significant difference between the stress management skills of the two groups. Hypothesis II was not rejected.

TABLE XIII  
ANALYSIS OF COVARIANCE OF STRESS MANAGEMENT

Source of Variance	Adjusted SS	df	MS	F
Treatment	2.19	1	2.19	0.06
Covariate Pretest	1776.86	1	1776.86	44.45*
Error	799.54	20	39.98	

\*p > 0.05

TABLE XIV  
ADJUSTED AND UNADJUSTED MEAN STRESS MANAGEMENT  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	13	36.10	37.77
Control	10	35.47	33.30

HYPOTHESIS III: There is no significant difference between the interpersonal communication skills of students with vocational handicaps who receive peer counselor training and students who receive usual vocational treatment. A nonparametric statistical procedure was used to determine if the experimental group and the control group differed significantly in interpersonal communication skills. The U value calculated from the Mann Whitney procedure exceeded the critical value required for statistical significance at the 0.05 level. The critical value of U is 28 while the obtained value was 84.5 (see Table XV). Thus Hypothesis III was rejected. There was a statistically significant difference between the interpersonal communication skill of the experimental and control groups. Responses of the experimental group were rated higher by judges than the responses of the control group, indicating that the experimental group was demonstrating better interpersonal communication skill than the control group.

HYPOTHESES IV: There is no significant difference between the drop out rate of students with vocational handicaps who re-

ceive peer counselor training and students who receive usual vocational instruction. Three subjects in the experimental groups dropped out of the vocational training programs. One was expelled for disciplinary reasons. The remaining eight subjects completed training or were still in training one year after participating in peer counselor training. Five subjects completed training or were still in training one year after participating in peer counselor training. Five subjects in the control group dropped out of vocational training. One was expelled for disciplinary reasons. The seven remaining control subjects completed training or were still in training one year after participating in peer counselor training.

A test of proportions was employed to test significance of peer counselor training upon students completion of vocational training. The Z score resulting from this procedure ( $Z = 1.7$ ) was not statistically significant at the 0.05 level. Consequently, Hypotheses IV was not rejected.



TABLE XV  
RANKING OF INTERPERSONAL COMMUNICATION SKILLS SCORES BY GROUP

Rank	Group	E-Group	C-Group
1	E	1	
2	E	2	
3	C		3
4	C		4
4	C		4
5	C		5
6.5	E	6.5	
6.5	E	6.5	
8.5	C		8.5
8.5	C		8.5
10.5	C		10.5
10.5	C		10.5
12	C		12
13	C		13
14.5	C		14.5
14.5	C		14.5
16	E	16	
17	E	17	
18.5	E	18.5	
18.5	E	18.5	
20	E	20	
21	E	21	
T1 = 127	T2 = 104	N1 = 10	N2 = 12

TABLE XVI  
COMPLETION OF VOCATIONAL INSTRUCTION BY GROUP

	Complete	Drop Out
Treatment	8	3
Control	7	3

p > 0.05

## Replication Study

The data from the replication study was analyzed using the same procedures employed in the original study. The results are consistent with those found in the first study and add validity to the findings. The findings of the replication study are presented as follows:

HYPOTHESES I: There is no significant difference between the interpersonal communication style of students with vocational handicaps who receive peer counselor training and students who receive usual vocational instruction after covarying for pre group differences.

A one way between group analysis was performed to test Hypothesis I and II. Pretest scores were covaried. Analyses were performed by SAS ANCOVA weighing cells by their sample sizes in order to deal with unequal-cell sample sizes.

An analysis of the PSM scales revealed that pretest scores significantly accounted for adjustment of the Assertiveness, Deference, and Aggressiveness post test scores as seen in Tables XVII, XIX, and XXI. After adjusting for pre-group differences the F scores obtained for each scale were 0.32 for Assertiveness, 3.42 for Deference, and 1.05 for Aggressiveness; none of which exceeded the table value of 4.35 for significance. The experimental group obtained a higher mean score on the Assertiveness scale while the control group obtained a higher mean score on the Deference and Aggression scales (see Tables XVIII, XX, and XXII).

TABLE XVII  
ANALYSIS OF COVARIANCE OF INTERPERSONAL ASSERTIVENESS

Source of Variance	Adjusted SS	df	MS	F
Treatment	7.979	1	7.98	0.32
Covariate Pretest	364.54	1	364.54	14.76*
Error	44.69	20		

\*p > 0.05

TABLE XVIII  
ADJUSTED AND UNADJUSTED MEAN INTERPERSONAL ASSERTIVENESS FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	11	32.78	34.54
Control	10	31.43	29.50

\*p > 0.05

TABLE XIX  
ANALYSIS OF COVARIANCE OF INTERPERSONAL DEFERENCE

Source of Variance	Adjusted SS	df	MS	F
Treatment	117.59	1	117.59	3.42
Covariate Pretest	582.00	1	582.00	16.99*
Error	617.53	20	34.21	

\*p > 0.05

TABLE XX  
ADJUSTED AND UNADJUSTED MEAN AND INTERPERSONAL DEFERENCE  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	Adjusted Mean	Unadjusted Mean
Treatment	12.47	10.45
Control	17.58	19.80

TABLE XXI  
ANALYSIS OF COVARIANCE OF INTERPERSONAL AGGRESSION

Source of Variance	Adjusted SS	df	MS	F
Treatment	22.377	1	22.37	1.95
Covariate Pretest	209.99	1	209.99	9.88*
Error	382.73	20	21.2	

\*p > 0.05

TABLE XXII  
ADJUSTED AND UNADJUSTED MEAN INTERPERSONAL AGGRESSION  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	11	5.62	4.5
Control	10	7.81	9.0

An analysis of the SQ scales revealed that pretest scores significantly accounted for adjustment of the Assertiveness, Deference and Aggression post test scores as displayed in Tables XXIII, XXV, and XXVII. The adjusted mean scores on the SQ did not significantly discriminate between the program participants and the controls on the Deference, Aggressiveness or Assertiveness scales. There was no significant difference between the communication style of the group which received peer counselor training and the group which received no unusual treatment. The experimental group was rated higher by their instructor on the Assertiveness and Aggression scales while the control group was rated higher on the Deference scales (see Tables XXIV, XXVI, AND XXVIII).

TABLE XXIII

ANALYSIS OF COVARIANCE OF INTERPERSONAL ASSERTIVENESS  
AS RATED BY INSTRUCTOR

Source of Variance	Adjusted SS	df	MS	F
Treatment	6.63	1	6.63	0.35
Covariate Pretest	253.00	1	253.00	13.38*
Error	379.13	20	18.90	

TABLE XXIV

ADJUSTED AND UNADJUSTED MEAN INTERPERSONAL ASSERTIVENESS  
FOR TWO TREATMENT CONDITIONS AS RATED BY INSTRUCTOR

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	11	25.46	25.54
Control	10	24.38	24.30

TABLE XXV

ANALYSIS OF COVARIANCE OF INTERPERSONAL DEFERENCE  
AS RATED BY INSTRUCTOR

Source of Variance	Adjusted SS	df	MS	F
Treatment	1.77	1	1.77	0.33
Covariate Pretest	126.94	1	126.94	23.91*
Error	106.18	20	5.31	

\*p > 0.05

TABLE XXVI

ADJUSTED AND UNADJUSTED MEAN INTERPERSONAL DEFERENCE  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	11	16.76	16.45
Control	10	17.31	17.60

TABLE XXVII  
ANALYSIS OF COVARIANCE OF INTERPERSONAL AGGRESSION  
AS RATED BY INSTRUCTOR

Source of Variance	Adjusted SS	df	MS	F
Treatment	46.99	1	46.99	2.68
Covariate Pretest	73.46	1	73.86	4.20*
Error	350.17	20	17.50	

TABLE XXVIII  
ADJUSTED AND UNADJUSTED MEAN INTERPERSONAL AGGRESSION  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	11	15.29	14.54
Control	10	12.21	12.90

HYPOTHESIS II: There is no significant difference between the stress management skills of students with vocational handicaps who receive peer counselor training and those who receive usual vocational instruction after covarying for pre group differences.

An analysis of covariance was used to determine if the two groups were significantly different with respect to stress management skill. Pretest scores were significant in accounting for adjustment of the Stress Management post test scores

(see Table XXIX). Although the post test scores did not reach significance, the experimental group obtained a higher mean score (see Table XXX). Consequently, there was no statistically significant difference between the stress management skills of the two groups.

TABLE XXIX  
ANALYSIS OF COVARIANCE OF STRESS MANAGEMENT

Source of Variance	Adjusted SS	df	MS	F
Treatment	9.69	1	9.69	0.18
Covariate Pretest	1222.35	1	1222.35	22.85*
Error	962.73	20	53.99	

\*p > 0.05

TABLE XXX  
ADJUSTED AND UNADJUSTED MEAN STRESS MANAGEMENT  
FOR TWO TREATMENT CONDITIONS

Peer Counseling	n	Adjusted Mean	Unadjusted Mean
Treatment	11	38.46	41.27
Control	10	36.99	33.90

HYPOTHESIS III: There is no significant difference between the interpersonal communication skills of students with vo-



cational handicaps who receive peer counselor training and students who receive usual vocational treatment. A nonparametric statistical procedure was used to determine if the experimental group and the control group differed significantly in interpersonal communication skills. The U value calculated from the Mann Whitney procedure exceeded the critical value required for statistical significance at the 0.05 level. The critical value of U is 26, while the obtained value was 38. Thus Hypothesis III was rejected. There was a statistically significant difference between the interpersonal communication skill of the experimental and control groups.

The responses of the experimental group were rated higher by judges than the responses of the control group indicating that the experimental group was demonstrating better interpersonal communication skill than the control group.

HYPOTHESIS IV: There is no significant difference between the drop out rate of students with vocational handicaps who receive peer counselor training and students who receive usual vocational instruction. Four subjects in the experimental group dropped out of the vocational training programs. Two were expelled for disciplinary reasons. The remaining seven subjects completed training or were still in training one year after participating in peer counselor training. Six subjects in the control group dropped out of vocational training. Three were expelled for disciplinary reasons. The five remaining control subjects completed training or were still in training one year after the training.

A test of proportions was employed to test significance of peer counselor training. The Z score resulting from this procedure ( $Z = 0.95$ ) was not statistically significant at the 0.05 level. Consequently, Hypothesis IV was not rejected.

TABLE XXXI  
RANKING OF INTERPERSONAL COMMUNICATION SKILLS SCORES  
BY GROUP REPLICATION STUDY

Rank	Group	E-Group	C-Group
1	E	1	
2	E	2	
3	C		3
4	C		4
5	E	5	
6.5	E	6.5	
6.5	C		6.5
8	C		8
9	C		9
10	C		10
11	C		11
12	C		12
14	E	14	
14	E	14	
14	C		14
16	E	16	
17.5	E	17.5	
17.5	E	17.5	
19	E	19	
20	E	20	
21	E	21	
22	E	22	
T1 = 175.5	T2 = 77.5	N1 = 13	N2 = 9

TABLE XXXII  
 COMPLETION OF VOCATIONAL INSTRUCTION BY GROUP  
 REPLICATION STUDY

	Complete	Drop Out
Experimental	7	4
Control	5	6

p = 0.3422

### Summary

In this chapter the questions presented in Chapter I are answered as follows:

1. Does peer counselor training affect the interpersonal communication style of students with vocational handicaps? No/Yes In the original study peer counselor training did not result in significant differences between groups on the assertiveness and deference subscales. Training did result in post test differences between the two groups on the aggression subscale. The treatment groups as rated by their instructors were found to be significantly more aggressive than the control group. However, in the replication study the two groups did not significantly differ on any of the three subscales. The treatment group was not rated significantly more aggressive by their instructor than the control group.

2. Does peer counselor training affect the stress-management skills of students with vocational handicaps? No on both

Neither the original study or replication study found any significant differences between stress management skills of the treatment and control groups. However, the mean score for students who did participate in peer counselor training was higher than the mean score for the control group.

3. Does peer counselor training affect the interpersonal communication skills of students with vocational handicaps? Yes on both. Both studies found significant differences between the interpersonal communication skills of the treatment and control groups. Students who received peer counselor training were rated significantly higher than the control group on their interpersonal communication skills.

4. Does peer counselor training affect the drop out rate of students with vocational handicaps? No on both. Neither study found significant differences between the drop out rate of the treatment and control group. However, there was a higher rate of student drop out rate in the control group of both studies.

The results of the analysis of the data were presented in this chapter. Peer counselor training was found to have no significant effect on the stress management skills and drop out rate of students with vocational handicaps. It was found to have a significant effect on the interpersonal communication skills of these students. The effects of peer counselor training upon interpersonal communication style was found to be inconclusive.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### Summary

The purpose of this study was to determine whether the use of peer counselor training would affect the basic helping skills of handicapped vocational students. This study consisted of two groups of handicapped vocational students. They consisted of an experimental group which received the peer counselor training and a control group which received the usual vocational instruction.

The subjects for the primary study were 23 disabled students enrolled in a vocational rehabilitation training center located in the southwestern region of the country. The students who volunteered to participate in the study were pre-tested and then randomly assigned to one of the two groups. Training consisted of two 3-hour sessions per week. The length of training was 5 weeks. A replication of the study was completed at the same facility with 21 new students 6 weeks after completion of the original study.

The four hypotheses tested in this study were as follows:  
HYPOTHESIS I: There is no significant difference between the interpersonal communication style of students with vocational handicaps who receive peer counselor training and those stu-

dents who receive usual vocational instruction after covarying for pregroup differences.

HYPOTHESIS II: There is no significant difference between the stress management skills of students with vocational handicaps who receive peer counselor training and those students who receive usual vocational training after covarying for pre group differences.

HYPOTHESIS III: There is no significant difference between the interpersonal communication skills of students with vocational handicaps who receive peer counselor training and those who receive usual vocational instruction.

HYPOTHESIS IV: There is no significant difference between the drop-out rate of students with vocational handicaps who receive peer counselor training and students who receive usual vocational instruction.

The study answered each research question as follows:

1. Does peer counselor training affect the interpersonal communication style of students with vocational handicaps?  
No/Yes. In the original study peer counselor training did not result in significant differences between groups on the assertiveness and deference subscales. Training did result in post test differences between the two groups on the aggression subscale. The treatment groups as rated by their instructors were found to be significantly more aggressive than the control group. However, in the replication study the two groups did not significantly differ on any of the three subscales. The treatment group was not rated significantly more aggressive by their instructors than the control group.

2. Does peer counselor training affect the stress management skills of students with vocational handicaps? No on both. Neither the original study or replication study found any significant differences between stress management skills of the treatment and control groups. However, the mean score for students who did participate in peer counselor training was higher than the mean score for the control group.

3. Does peer counselor training affect the interpersonal communication skills of students with vocational handicaps? Yes on both. Both studies found significant differences between the interpersonal communication skills of the treatment and control groups. Students who received peer counselor training were rated significantly higher than the control group on their interpersonal communication skills.

4. Does peer counselor training affect the drop out rate of students with vocational handicaps? No on both. Neither study found significant differences between the drop out rate of the treatment and control group. However, there was a higher rate of student drop out rate in the control groups of both studies.

#### Conclusion

The results of this study may be compared with the results of similar studies and similar populations. In 1982, Evan and Livneh reported that peer counselor training increased the communication skills of disabled adults. The present study is consistent with these earlier findings. The findings are

also consistent with those of Crisler and Long (1978) and Griffin (1976), who found that severely handicapped clients enrolled in a similar comprehensive rehabilitation center in Georgia showed significant improvement after participating in a Human Relations training program.

Crisler and Long (1978) and Griffin (1976) however, were exclusively concerned with the effects of training upon communication skills. In reviewing the literature, no studies of peer counseling examined the effect of training upon the communication style or the stress management skills of the handicapped person.

Based upon the findings of this study, several conclusions are offered. Analysis of the data did not show a significant difference in the assertiveness, deference or stress management skills of students who had participated in the peer counselor training and those who served in the control groups. This indicates that peer counselor training did not result in significantly higher assertiveness, deference or stress management skill for those who participated in the training. Analysis did show a significant difference between the groups with respect to aggression. The experimental group was rated by their instructors as significantly more aggressive than the control group. This finding was not replicated with the second group of subjects. However, since it has been noted earlier that rehabilitation clients as a group tend to be passive and deferent (Grimes, 1977), changes in the communication style of students which result in the student trying



new behaviors might be viewed as more aggressive in comparison to their perviously passive style. One possible explanation for the outcome is that these variables as measured by the PSM may be enduring personality traits which are not sensitive to change within a five week period. Perhaps using behavioral critieria to measure communication style and stress management would result in a different outcome.

Pre- and Post-test which employ physiological measures, i.e. blood pressure, pulse rate, etc, may provide an equally valid measure of stress management. Additional instruments which measure state trait anxiety could also be employed. The State-Trait Anxiety Inventory is but one example. Communication style could be assessed during video taped sessions such as those utilized by Alberti (1977). Another measure of assertiveness is the Assertive Inventory (Gambill and Richey, 1975).

Another possible explantion for these findings involves the power of the test. Since the study was limited to two relatively small gorups of subjects, the power of the test to find significant differences was also limited. Further repli-cation of this study with a larger number of treatment groups might yield different results.

#### Recommendations

Based upon the findings of this study the follwoing re-commendations fur future research are made:

- 1) Futher research should be concerned with the content of

peer counselor training. In developing their format for peer counselor, Evan and Livneh (1982) asked participants to identify their personal needs and incorporated them into the program format. Other coping skills, such as problem solving ability and self management, as well as information about services available in the community may be considered equally important in the format of the peer counselor training program.

2) Research should also be conducted to assess the effect of disabled peer counselors upon the rehabilitation process and adjustment of other disabled students. While Gregg and Roberts (1976) reported that handicapped students frequently sought out peers to discuss interpersonal problems, no controlled studies have investigated the impact of peer counselors upon the rehabilitation process.

3) Investigation of the selection process for peer counselors is also recommended. McEwen (1976) and others who advocate the use of peer counselor recognize the importance of selecting handicapped persons who will serve as appropriate role models to their disabled persons.

4) Further research should be conducted to determine the effect of peer counselor training upon the student's level of aggression as perceived by their instructors.

Based upon the findings of this study the following recommendations are made for rehabilitation practitioners:

1) Spreitzer (1976) in a study of clients enrolled in a comprehensive vocational rehabilitation facility reported that peer or informal leaders commonly emerge whether sanctioned

or opposed by the official structure of the institution. He found in analyzing the reasons that clients gave for nominating a fellow client as an informal leader that those nominated seemed to serve as lay therapists by providing social and analytic functions. Findings from the present study indicate that clients can be trained in some of the helping skills (i.e. interpersonal communication skills) used by rehabilitation professionals in the rehabilitation process. Professionals in the area of vocational rehabilitation should consider formalizing this informal helping network and utilizing peer counselors to help reach the goals of the institution.

2) While participation in this peer counselor training program did not clearly effect interpersonal communication style, the experimental group was rated significantly more aggressive than the control group by their instructor. This suggests that training does have an impact upon the instructor's perceptions of student communication style. Since, according to Grimes (1977), most rehabilitation clients tend to be deferent and passive it is possible that this perceived increase in aggression as a result of participation in peer counselor training could jeopardize the students chances of successfully completing vocational training.

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APPENDIXES

APPENDIX A

THE EXPERT PANEL OF JUDGES

## THE EXPERT PANEL OF JUDGES

The expert panel of Judges consisted of the following:

Dr. Robert Akridge  
Associate Professor  
Department of Counselor Education  
University of Arkansas

Dr. Roy Farley  
Assistant Professor  
Department of Counselor Education  
University of Arkansas

Dr. Robert Means  
Professor  
Department of Counselor Education  
University of Arkansas

APPENDIX B

PEER COUNSELOR TRAINING PROGRAM

## PPER COUNSELOR TRAINING PROGRAM

1. Introduction to Peer Counseling
  - Historical Development
  - Peer Counseling in Rehabilitation
  - The Consumer Movement
  - R&T Involvement
  - Peer Counselor Training
2. Pre-Test
3. Strength Bombardment
4. Overview of Basic Helping Skills
5. Introduction to Relaxation Skills Training  
(Guided Imagery Practice)
6. Responding with Accurate Empathy
  - What is Empathy Training
  - Attending
  - Body Language
  - Listening
  - Practice Session - Identifying Feeling  
Responding to Feeling
  - Practice Session - Helpee Problem Solving Skills  
Rating Helper Responses  
Expressiveness and Intensity  
Responding to Feeling and Meaning
  - Practice Session - Summary Feeling Statements
  - Practice Session in Triads
7. Developing a Conceptual Model of the Helpee's Experience  
and Behavior
  - Customary Stimulation Activation Curves
  - Active/Passive Styles of Behavior
  - Stress and Information Processing
  - Managing Self-System Functions
  - Behavioral Response Problem Solving Success Scale

8. Additive Empathy - The Stimulation Phase of Helping
  - Concreteness and Specificness
  - Practice Session - Self-Exploration
  - Immediacy of Experiencing
  - Practice Session
9. Information Exchange
10. Assertiveness in the Helping Relationship
  - Helper Style
  - Assertiveness Questionnaire
  - Explanation of Assertiveness
  - Discrimination Assertive/Aggressive/Passive/  
Passive-Aggressive Response
  - Emotional States and Irrational Messages that  
Block Assertiveness
  - Basic Human Rights
11. Managing the Helping Relationship
  - Self-Disclosure
  - Checklist of Genuineness
  - Checklist of Giving Feedback
  - Immediacy of Relationships
  - Three Part "I" Message
  - Checklist of the Communication of Respect
  
  - Practice Session - Feedback
12. Confrontation
13. Information Exchange
  - Recruitment/Training/Mutual Support Peer Counselors
14. General Problem Solving Skills
  - Seven Step Problem Solving Procedure
  - Problem Solving Dialogue
  - Value Clarification

15. Personal Problem Solving Skills

Introduction to Rational Thinking  
Guidelines for Developing Rational Beliefs  
Practice in Applying Guidelines  
Changing Self-Defeating Beliefs to Rational Beliefs

16. Summary and Post-Test

17. Implementing Peer Counseling Programs

18. Evaluation

APPENDIX C

USUAL VOCATIONAL TRAINING



## USUAL VOCATIONAL TRAINING

Usual vocational instruction consisted of individual based instruction in one of several areas including the following: business education, office machines, auto mechanics, auto body, printing, cosmetology, laundry, food service and horology.

VITA

Anne M. McSpadden

Candidate for the Degree of

Doctor of Philosophy

Thesis: EFFECTS OF PEER COUNSELOR TRAINING UPON STUDENTS WITH VOCATIONAL HANDICAPS

Major Field: Psychology

Biographical:

Personal Data: Born in Little Rock, Arkansas, August 29, 1954, the daughter of Mr. and Mrs. L. T. McSpadden.

Education: Graduated from Blytheville High School, Blytheville, Arkansas in May 1972; received a Bachelor of Science degree in Psychology from Arkansas State University in 1976; received a Master of Rehabilitation counseling degree in Rehabilitation Counseling from Arkansas State University in 1978; completed the requirements for the Doctor of Philosophy degree at Oklahoma State University in December, 1985.

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