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The effects of social skills training on the prevention of perceived stress, depression, and social anxiety of Taiwanese graduate students in the United States

Li-An Kuo

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Kuo, Li-An, Ed.D.

The College of William and Mary, 1993

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THE EFFECTS OF SOCIAL SKILLS TRAINING ON
THE PREVENTION OF PERCEIVED STRESS, DEPRESSION,
AND SOCIAL ANXIETY OF TAIWANESE GRADUATE STUDENTS IN
THE U. S.

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Li-An Kuo
April 1993

THE EFFECTS OF SOCIAL SKILLS TRAINING ON THE
PREVENTION OF PERCEIVED STRESS, DEPRESSION, AND
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U. S.

by

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VITA

THE EFFECTS OF SOCIAL SKILLS TRAINING ON THE PREVENTION OF
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GRADUATE STUDENTS
IN THE U. S.

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TAIWANESE GRADUATE STUDENTS IN THE U. S.

ABSTRACT

The purpose of this study was to determine the effects of an Banduraian-based group social skills training in the prevention of stress, depression, and social anxiety of Taiwanese graduate students in the U. S.

The subjects of this study were 60 Taiwanese students recruited at four seminars sponsored by the Taiwan Ministry of Education, which aimed to prepare students for future overseas study. Thirty subjects were randomly assigned to the experimental condition and were trained with social skills before they left for U. S. The other thirty subjects were assigned to the control group without any treatment.

It was hypothesized that: (1) There would be a significant difference at the .05 level in subjects receiving pre-arrival social skills training as contrast with subjects receiving no treatment in their level of stress, depression, and social anxiety at the posttest (1 week after treatment); (2) There would be a significant difference at the .05 level in subjects receiving pre-arrival social skills training as contrast with subjects receiving no treatment in their level of stress, depression, and social anxiety at the follow-up (1 to 2 month after subjects' arrival in U. S.).

The results indicated that participation in an Banduraian-based group skills training course for Taiwanese graduate students did not have short term effects on their perceived stress, depression, and social anxiety. However, results demonstrated a general trend toward more positive outcomes. Although there was also no evidence for the effectiveness of social skills training in the prevention of future perceived depression and social anxiety, the analysis of followup data revealed that the effects of social skills training on prevention of perceived stress for Taiwanese graduate students was supported.

Li-An Kuo

PROGRAM COUNSELING

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA

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Chapter 1

Introduction

Statement of the Problem

In recent years, American colleges and universities have witnessed a steady increase in international student enrollments (Altbach, Kelley, & Lulat, 1985; American Council on Education, 1982; Pedersen, 1991). Of the 1989 doctoral recipients from colleges and universities in the United States, 26.1% were international students. This is a considerable, steady increase since 1960, when 12.2% were international students (Mooney, 1990). The growing number of international students has been cited with both positive and negative effect upon students as well as the hosting universities. Differences in culture, language, and political loyalties can become burdensome to U. S. universities when the ratio of foreign to resident graduate students is high (Barber & Morgan, 1988).

According to Sue et al.'s studies (1982, 1985), many Chinese students, particularly recent immigrants, face significant social and academic hardships. For most of these students attendance at a college abroad is one of their first major life transitions. While this educational journey provides an opportunity to expand one's professional knowledge and to develop in a new environment, it also poses the risk of alienation, stress, depression, and failure to meet the challenges. Many cross-cultural

psychologists (Brislin, 1981; Klineberg & Hull, 1979; Pedersen, Lonner, & Draguns, 1976; Wehrly, 1988) have found that foreign students experience of considerable stress, homesickness and loneliness are pervasive, and depression is common.

Helping people improve social skills appears intuitively to be a promising preventive strategy in changing interpersonal behavior and in reducing anxiety (Alberti, 1977; Bellack & Hersen, 1979; Twentyman & Zimering, 1978). In recent years, social skills training has been shown to be clinically effective in the treatment of schizophrenia (Monti, Curran, DeLancy, Corriveau, & Hagerman, 1980), alcoholism (Monti, Abrams, Binkoff, Zwick, Liepman, Nirenberg, & Rohsenow, 1990; Oei & Jackson, 1980), juvenile delinquency (Ollendick & Hersen, 1979), marital discord (Birchler, 1979), and social isolation in children (Bornstein, Bellack, & Hersen, 1977; Mize & Ladd, 1990).

Since foreign students are reluctant to seek out campus counseling services due to the stigma attached and unfamiliarity with such services (Alexander, Workhen, Klein, & Miller, 1981; Mau & Jepsen, 1989; Sue & Kirk, 1975), predeparture intervention is particularly important and likely to be beneficial (Pedersen, 1980; Ying & Liese, 1990). Social skills training has been suggested to be a promising predeparture intervention for Taiwanese students (Ying & Liese, 1990). However, there has been little, if any empirical study to support this suggestion. The problem

of this study concerns relationships that exist between social skills training and perceived stress, depression, and social anxiety of Taiwanese graduate students in the U. S.

Need for the Study

By the academic year 1988-1989, there were 366,354 international students from 186 nationalities studying at U. S. colleges and universities (Pedersen, 1991). International students are expected to constitute more than 25% of the graduate students enrollment in the 1990s (Parr, Bradley, & Bingi, 1992). More than half the international students come from Asia, and this proportion is continuing to increase (Pedersen, 1991).

Over the last decade, the number of students studying in the U. S. from the island of Taiwan has increased from 19,460 in 1980-1981 to 26,660 in 1987-1988 (Institute of International Education, 1989). For 1987-1988, they constitute the largest group of foreign students in the U. S. In 1991-1992, the number of Taiwanese graduate students enrolled in the U. S. college was reported to be over 33,000 (Institute of International Education, 1991). Since difficulties with appropriate social behavior is a common problem for foreign students (Singh, 1963; Yeh et al., 1973), special efforts could be made in helping this large number of Taiwanese students adjust to their daily social interaction when studying in the U. S. If the results of

this study are encouraging, there will be a significant impact on the ability of Taiwan Ministry of Education to respond to their students' needs with appropriate education, and counseling strategies before students go abroad. The possible effects of providing pre-arrival orientation for international students will also call upon the attention of American colleges and universities to develop useful orientation programs for international students. In addition, the universal effectiveness of social skills training in the prevention of stress, depression, and social anxiety in international students would advance research in this area.

Purpose of the Study

The purpose of this study is to determine the effects of social skills training in the prevention of stress, depression, and social anxiety of Taiwanese graduate students in the U. S. The objective of the study is to address the question:

"How does social skills training prevent the self-reported stress, depression, and social anxiety of Taiwanese graduate students in the U. S.?"

Research Questions

In order to determine the effects of social skills training in the prevention of perceived stress, depression, and social anxiety of Taiwanese graduate students in the U.

S., an empirical answer to the following research questions would appear necessary.

1. Is there a significant difference in students receiving pre-arrival social skills training as compared with students receiving no treatment in their level of stress, depression, and social anxiety at the posttest?

2. Is there a significant difference in students receiving pre-arrival social skills training as compared with students receiving no treatment in their level of stress, depression, and social anxiety at the follow-up?

Theoretical Rationale

Social learning theory employs behavioristic and humanistic terminology to explain human psychological functions in terms of continuous reciprocal interaction between personal and environmental determinants. In the reciprocal interaction process the environment influences human behavior, but human behavior also partly determines his environment in a mutual fashion. By their very actions, people play a significant part in producing contingencies - reinforcement sequences - of which they are a part. Thus, "behavior is regulated by its contingencies, but the contingencies are partly of a person's own making" (Bandura, 1977, p. 314). Human beings do not simply respond to stimuli, they interpret them. "So-called conditional reactions are largely self-activated on the basis of

learned expectations rather than automatically evoked." (Bandura, 1974, p. 859).

In Bandura's reciprocal interaction, interdependent behaviors, other personal factors, and environmental factors operate in a mutual interaction, interlocking each determinants. In the process of reciprocal interactions, people learn to predict events and to anticipate reactions to certain events. "Effective psychological functioning is partly based on the capacity to anticipate the probable consequences of different courses of action" (Bandura, 1977, p. 311). However, depending upon the time, place, and persons involved, the same behavior has different results or effects. Furthermore, within the reciprocal interaction process, the same event can be a stimulus, a response, or an environmental reinforcer, depending upon its place in the sequence at which an analysis begins.

Bandura observes that human operations would be quite boring and trying if solutions to problems could be achieved only by enacting possible alternative actions and suffering the consequences of each. Higher mental capacities, however, enable people to use thought instead of action in solving problems. Alternate courses of action are typically tested through symbolic exploration and, on the basis of their calculated consequences, are either retained or discarded. "By representing foreseeable outcomes [of behavior] symbolically, people convert future consequences into current motivators of behavior" (Bandura,

1977, p. 313). Through their exercise of thought giving them the capability for insightful and foresightful behavior, people can execute favored symbolic solutions to problematic situations.

A person usually changes his behavior in situations where there is a need, adequate performances skills, and adequate incentives. But the change is facilitated by an awareness of it's consequences (Bandura, 1969). The consequences of a behavior serve several functions. They (1) impart information which serves as a guide for action; (2) provide the intervening influence of thought; (3) motivate the person through their incentive value; (4) provide anticipatory benefits and averters of future trouble; (5) bring remote consequences to bear through the person exercising anticipatory thoughts; and (6) give rise to examples and precepts that delineate standards of conduct that serve as a basis for self-reinforcing actions.

Bandura's social learning theory involves goal setting and attainment and hypothesizes how people can shape environmental conditions for their purpose. But in this purposive process some people are better than others, "The greater their foresight, proficiency, and self influence, all of which are acquirable skills, the greater the progress toward their goals" (Bandura, 1974, p. 867). However, if an individual's standards of performance are too high, they can be a source of personal distress. Bandura (1977) says: "In its more extreme form, harsh

standards for self-evaluation gives rise to depressive reactions, chronic discouragement, feelings of worthlessness, and lack of purposefulness" (p. 141). According to Bandura, working at goals that are too distant or too difficult can be disappointing. "Subgoals of moderate difficulty are therefore likely to be most motivating and satisfying" (1977, p. 162)

The learning process, according to Bandura, is the process of internal representations of behavior being construed through informative feedback resulting from direct behavior, observation of examples of behavior in other people, and the consequence of both. Thus, learning events are pleasurable, inspiring, painful, humiliating, frightening, and so on. The internal representations serve as guides to behavioral actions on later occasions. Also, "After response patterns become routinized through repeated execution, they are performed without requiring intermediary visualization or thought." (Bandura, 1977, p. 314)

Bandura states that "research conducted within the framework of social learning theory shows that virtually all learning phenomena resulting from experience can occur on a vicarious basis by observing other people's behavior and its consequences for them" (Bandura, 1974, p. 864). He then identifies four processes in observational learning to explain the completed learning event: attention, retention, motor reproduction, and motivation (1977).

The attentional process regulates one's sensory input and perception of modeled action. It involves a person observing a model's experience so as to learn from the model. Research has demonstrated that models will be attended to more often if they are similar to the observer (i.e., same sex, age, etc.), are respected, have high status, have demonstrated high competence, are thought of as powerful, and are attractive.

Within the retentional process, "through coding and symbolic rehearsal, transitory experiences are transformed for memory representation into enduring performance guide" (Bandura, 1974, p. 864). To be retained in memory, a model's behavior as a stimulus event is verbally coded, symbolically represented, and held over an elapse of time. According to Bandura, "It is the advanced capacity for symbolization that enables humans to learn much of their behavior by observation" (1977, p. 25). It is these stored symbols that make delayed modeling possible.

Motor reproduction of the images and thoughts acquired through observation depends upon the availability of the motor skills to the observer. When several components are to be mastered for motor reproduction, the missing or deficit skills must first be developed by observation and practice. Bandura maintains that even if an individual is equipped with all of the physical apparatus to make appropriate responses, a period of cognitive rehearsal is necessary before an observer's behavior can match that of a

model. The symbolic retention of a modeling experience serves as a "feedback" loop which can be used to gradually match one's behavior with that of a model's by utilizing self-observation and self-correction.

The motivational process is influenced by external reinforcement. Learned responses that are likely to result in direct external positive consequences are expressed overtly, whereas those that lead to neutral consequences or that may be negatively reinforced will probably not be translated into behavior.

Instead of considering people to be mechanical products of environmental forces, Bandura regards human beings as information processing and interpreting animals who operate on the basis of insightful expectations. Accordingly, he states, "Contrary to the mechanistic metaphors, outcomes change behavior in humans through the intervening influence of thought" (Bandura, 1974, p. 860). Thus, human beings are thinking organisms who possesses capacities that provide them with some power of their own self-direction. According to Bandura, reinforcement is assumed to influence what is performed rather than what is learned. Reinforcement is an effective means of regulating already learned behavior; however, it is relatively inefficient way to create new behavior. People develop cognitive expectations about behavior outcomes and about what they must do to achieve desirable outcomes or to avoid unpleasant ones. Reinforcement guides behavior through

anticipation of a future occurrence. Individuals regulate their behavior according to the outcomes they expect will be produced as a result of their behavior. Reinforcement plays an antecedent role rather than a consequent influence. Observational learning can be achieved more effectively by informing observers in advance about the benefits of adopting modeled behavior.

Bandura believes that most of the behaviors people display have been learned, either deliberately or unintentionally, through modeling. Modeling reduces both the burden and the hazards of direct trial-and-error learning. People learn from example what they should do even before they attempt a given behavior. According to Bandura, an observer can learn simply by observing the consequences of the behavior of a model, storing that information symbolically and utilizing it when it is advantageous to do so. Thus, for Bandura, vicarious reinforcement or punishment is as informative as direct reinforcement.

Modeling for vicarious learning may be either direct, synthesized, or abstract. In direct modeling a person copies the behavior of a model in the form in which he or she has observed it and its consequence. Direct modeling usually gives rise to socially prescribed behaviors being adopted in essentially the same form that they are portrayed.

In synthesized modeling, features of different model behaviors are formed into amalgams that may represent novel styles of thought and action. "By synthesizing what they see around them into new ways of doing things, observers can achieve by creative modeling novel styles of thought and conduct".

Abstract modeling may be used to develop rule-governed cognitive behaviors. Through this process, observers derive principles that underlie specific performances and apply them so as to generate innovative behavior patterns that transcend anything they have either seen or heard. Based upon observationally derived rules, people alter their judgmental orientations, conceptual schemes, linguistic styles, and standards of conduct to achieve novel style of operation.

In summary, according to social learning theory, attitudes, cognitions, and behaviors are learned from direct experience and observationally. Learning can occur without the individual having had the opportunity to make the responses and without the model or the observer being rewarded for the responses. The individual adopts new attitudes, cognitions, and behaviors and alters or eliminates old ones as societal expectations and reward contingencies change. Within the learning process, the individual's cognition and the capacity for self-direction play prominent roles.

The present study is designed to assess the impact of social skills training on the prevention of self-reported stress, depression, and social anxiety of Taiwanese graduate students in the United States. The study is based on a process of resocialization. This process of resocialization is a reflection of Bandura's premise that human behavior is largely acquired and that the principles of learning sufficiently explain the development, maintenance, alteration, and elimination of behaviors, attitudes, and cognitions. The resocialization towards more adapted attitudes, cognitions, and behaviors related to American interpersonal interaction will occur through the process of members participating in structured group exercises, observing role models, and practicing learned skills. The six treatment sessions are based on Bandura's belief that most behavior is learned observationally through modeling and that individuals regulate their behavior according to the outcomes they expect their behavior will produce.

Chapter 2

Review of the Literature

Social Learning Theory and Social Skills Training

Perhaps psychology's most direct contribution to psychological skills training came from social learning theory, in particular, the work conducted and stimulated by Albert Bandura (Goldstein, Gershaw, & Sprafkin, 1985; Kelly, 1982). A growing body of research also suggests that a social learning model can be an effective therapeutic approach in the treatment of a variety of behavioral problems. Studies have shown, for example, that it can be effective for increasing assertive behaviors (McFall & Twentyman, 1973); for rehabilitating juvenile offenders (Sarason & Ganzer, 1969); for increasing social competence of adolescent (Goldstein, Sprafkin, Gershaw, & Klein, 1980); and for improving the interpersonal communication skills of psychiatric patients (Goldsmith & McFall, 1975; Halford & Hayes, 1991).

Benton and Schroeder (1990) conducted a meta-analytic review of 27 studies on social skills training with schizophrenics. The studies being included in the meta-analysis were conducted between 1972 and 1988. The inclusion criteria for the intervention to be defined as social skills training in this research was use of a minimum of three of the following core behavioral techniques: instructions or coaching, live modeling, taped

modeling, simple rehearsal, role-play rehearsal, verbal feedback, videotaped feedback, interpersonal reinforcement, and homework assignments. The results of this research indicate that social skills training leads to significant improvements in the social behavior of schizophrenics when specific behavioral measures are used (+.76 ES). Similarly, training appears to have a positive impact upon the schizophrenics' perceptions of themselves as more assertive and less socially anxious (+.69 ES). The mean effect sizes for other-rated general functioning and self-rated symptoms, although statistically significant, were only half as large (+.34, and +.32 ES), suggesting that training has only a marginal impact on these variables. Despite the need for further research, the authors concluded that social skills training should be regarded as an essential component of treatment for patients with schizophrenia.

Twentyman and McFall (1975) used 31 college males who had reported themselves unable to interact with women. The subjects were randomly assigned either to a skill-training group or to an assessment-only control group. Fifteen subjects in the skill-training group were seen individually once a week for three treatment sessions. The treatment consisted of behavior rehearsal, modeling, and coaching, which was based on Bandura's social learning theory. The findings showed that three brief sessions of skill training significantly improved the heterosexual performance of shy subjects on experimental measures. Subjects who had

received treatment showed less physiological responsivity to the testing stimuli, reported less anxiety, and were rated as being more skillful in the test situations. Behavioral diaries revealed that following treatment subjects who received training changed more than control subjects on several measures of frequency and duration of interaction with women.

Trower, Yardley, Bryant, and Shaw (1978) compared a systematic desensitization (SD) with a social skill training (SST) to improve social competence. Twenty socially unskilled patients and twenty socially phobic patients were given either SD or SST. The basic techniques employed in the SST group are coaching, modeling, behavior rehearsal, and feedback. The results showed that the unskilled patients responded more to SST, as researchers predicted, in that they reported significantly less difficulty in social situations, went out more, and improved on their personal behavior deficits. The phobic patients responded equally well to both therapies. The success of SST in both kinds of problems is explained in terms of an unpredicted dual role, in that it reduced anxiety as well as facilitated behavior change.

After reviewing previous literature on social skills training, Ladd and Mize (1983) concluded that there is a lack of a unified theoretical framework, paradigm, or model from which to conceptualize the skills learning/training process. It is necessary to identify and make explicit

models of skills learning that can be used as guides for the formulation of more complete, theoretically consistent training procedures. As an alternative, Ladd and Mize (1983) proposed a model of social-skill training methodology which was formulated on Bandura's social learning explanation of skill acquisition and behavior change. According to this model, learners form a concept or cognitive representation of behaviors from informative experiences such as observing a model or listening to verbal instructions. On subsequent occasions, the learner may use these concepts as patterns or representational guides for performance. Motivation to act or operate upon a conceptual representation may arise from experiencing favorable consequences for behavior or from perceiving a discrepancy between newly conceived behaviors and current levels of performance. Finally, the learner's concepts and performance may be modified or adjusted as a result of response outcomes. Ladd and Mize's social skills training model had been successfully applied to children (Ladd, 1981).

Thiessen, Avery, and Joanning (1981) conducted research in communications skills training, based on social learning theory to facilitate the postdivorce adjustment of women. Female subjects in the experimental group met three hours per week for five weeks. Male and female facilitators represented and clarified information regarding materials presented in the groups, modeled

empathy and self-disclosure skills, supervised skill practice, and provided feedback and reinforcement to the subjects. Results of this study indicated that the experimental group, relative to the control group, showed increased levels of general postdivorce adjustment as measured by the Fisher Divorce Adjustment Scale. Likewise the Self-Esteem subscale of the Fisher Divorce Adjustment Scale indicated that members of the experimental group increased their level of self-esteem relative to controls. The Acceptance of Other Scale findings indicated that the experimental group's level of empathy increased significantly as compared to the control group. No significant differences between the experimental group and control group were found for self-esteem as measured by the Rosenberg Self-Esteem Scale, perceived level of social support, or self-disclosure skills.

Goldstein and his colleagues also describe "a psychoeducational intervention, designed specifically to enhance the prosocial, interpersonal, stress management, and planning skills of aggressive, withdrawn, immature, and 'normal' but developmentally lagging adolescents - all of whom are, by our definition, skill deficient" (Goldstein, Sprafkin, Gershaw, & Klein, 1986, p. 312). Their "structural learning" approach, which is based on Bandura's social learning theory, includes modeling, role playing, feedback, and transfer of training activities designed to teach specific social skills. The 50 Structured Learning

Skills they developed are divided into six groups: I, Beginning Social Skills; II, Advanced Social Skills; III, Skills for Dealing with Feelings; IV, Skill Alternatives to Aggression; V, Skills for Dealing with Stress; and VI, Planning Skills (Goldstein et al., 1986). According to the authors (McGinnis, Goldstein, Sprafkin, & Gershaw, 1984), the skills presented are those believed to be related to one's social competence; those suggested by research to be related to peer acceptance, positive teacher attention, and academic success. Gutride, Goldstein, and Hunter (1973, 1974) carried out two studies on acute and chronic inpatients to assess the effectiveness of structured learning therapy. Both studies showed structured learning therapy to produce a significant improvement in both acute and chronic patients as compared with the no-treatment control groups.

Critique

From the studies cited above it is evident that social skill training based on Bandura's social learning theory has been applied in a variety of research investigations. The social learning theory principles of instruction, modeling, behavioral rehearsal, reinforcement, and feedback have been described within any skills-training session. Although the behavioral components to which these principles are applied change over the course of an intervention, the training techniques within any session remain relatively constant.

Experimental evidence from studies on both psychiatric patients and volunteer subjects indicates that skills training can produce positive changes in social behavior at least in the short term. In the better designed studies it has been shown that this is not due to chance factors, nor to the non-specific effects of treatment.

A criticism of all these studies is the use of patients or maladjusted persons as the research subjects. Thus, generalizing from the findings of these researches to normal population would be seriously limited. In fact, there are few well-designed studies analyzing the efficacy of social skills training with the normal population (Phillips, 1985). The purpose of this study is to explore the possible positive effects of social skills training on normal graduate students relative to stress coping behavior. Much can be learned when more rigorous research results become available. An additional criticism is that these studies did not focus on the preventive function of social skills training. The therapeutic role of social skills training is quite certain so far, however, investigators did not go beyond the remedial strategy and respond to identify persons at risk and training them in a preparatory manner to confront future skill-demanding situations as they arise. This study would focus on the preventive function of social skills training. In summary, a review of the literature regarding social skills training specifically based on Bandura's learning theory reveals

reliable research in this area providing a strong theoretical and applied base of knowledge with which this study's results can be compared.

Social Skills and Stress

Tolman and Rose (1990) evaluated a structured group coping skills intervention designed to reduce stress. The treatment focused specifically on modifying cognitive mediation of events and on improving coping with ongoing routine stressors, and contained relaxation, cognitive restructuring, and social skills training components. The experimental treatment was compared to a relaxation-only (RO) treatment and to a waiting list (WL) control condition. The treatment group met once per week for eight weeks. Social skills were introduced in sessions 6 and 7 for the multi-method (MM) treatment group. The social skills training component of the MM program consisted of the following procedures: explanation of the relationship between social skills deficit and stress; identification of social deficits through training exercises in commonly occurring social events; identification of specific stress-filled events unique to each client; determination of goals, critical moment, and specific behavior required to deal with the event effectively; behavioral modeling of the event; behavioral rehearsal by the client, with and without coaching of the new response; structured feedback to the client; discussion of the specific situation by linking it

to general stress problems; application of newly learned social skills in the environment through successively more difficult homework assignments. It was hypothesized that MM treatment would be more effective in helping clients to cope with routine stressors than would relaxation alone.

The results of this study show that the treated subjects improved on three of four dependent measures of stress. Although differences between the MM, RO, and WL conditions were not statistically significant, the mean differences were in predicted directions. Tolman and Rose (1990) also concluded that since subjects in the MM treatment were provided with social skills training which are likely to bring about lasting environmental changes and would decrease stress for the subjects, MM treatment was expected to have longer lasting changes than the RO treatment. In fact, MM subjects did continue to improve from posttest to follow-up on the symptom measure, while the RO subjects deteriorated. MM subjects maintained their gains on the mood measure, while the RO subjects deteriorated. This evidence of a maintenance effect for the MM approach however was not statistically significant.

Since the total number of subjects in Tolman and Rose's (1990) study was only forty-one, the failure to reject the null hypothesis may be due to the small sample size. Tolman and Rose (1990) suggested that if the study had more power, the null hypothesis of no differences

between treated subjects and waiting list controls may have been rejected.

Social support has been studied extensively as a coping resource which can mitigate the adverse psychological effects of environmental stressors (Cohen & Syme, 1985; Lepore, Evans, & Schneider, 1991; Sarason, Sarason, & Pierce, 1990). The perception, or belief, that others are available to provide emotional comfort or practical assistance in times of need appears to be particularly beneficial for mental health (Wethington & Kessler, 1986). Individuals with high levels of perceived support appear to be more resistant to the adverse psychological effects of environmental stressors than do individuals with relatively low levels of perceived support (Cohen & Wills, 1985; Leavy, 1983; Mallinckrodt & Leong, 1992). That is, perceived social support may buffer individuals from the adverse psychological consequences of exposure to stressors. To maintain one's social support resource, social skills play a prominent role (Shaver, Furman, & Buhrmester, 1985). According to Heller and Swindle (1983), socially competent individuals are better able to maintain high levels of social support during prolonged stressful situations than less socially competent individuals. Cohen, Sherrod, and Clark's (1986) research also provides evidence for the importance of social skills in the development of support perceptions. Thus, it is likely that support buffering effects would occur primarily

for those with greater social skills (Lefcourt, Martin, & Saleh, 1984; Monroe & Steiner, 1986). In two more recent studies done by Elliot and Gramling (1990), data collected from two independent samples of college students provide evidence that interpersonal assertiveness skills are related to the effectiveness of social support. Elliot and Gramling (1990) suggested that counseling interventions should be used to equip persons with interpersonal and social skills that could be used to access and use social support.

In addition to social support, coping skills are another means of lessening the effect of stress. Lazarus and Folkman (1984, p. 141) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person". They regard coping as serving two overriding functions: to manage or modify the difficulty with the environment that is causing distress, and to regulate the emotional response to the problem. In Lazarus and Folkman's (1984) stress coping model, social skills are suggested to be an important coping resource. Indeed, since many of the stresses in society grow out of interpersonal relations, "interpersonal skills become key factors in coping with daily stresses of life" (Torrance, 1965, p. 81).

According to Wrubel, Benner, and Lazarus (1981), coping and social competence are highly overlapping subvarieties. Wrubel et al. (1981) believe that social competence differs from coping competence only in the arena of management. However, since the most important, persistent, and troubling encounters in human existence are often social in nature (Lazarus & Cohen, 1977; Pearlin & Liberman, 1979) there is a large area of overlap between the two concepts (Wrubel et al., 1981). In dealing with stress, Wrubel et al. (1981) also suggest that every transaction involves a set of real environmental demands, constraints and resources with which to cope. For example, culture shock is illustrated as a common example of the loss of social competence as a result of the uniqueness of environmental demands (Wrubel, et al. 1981). In a foreign culture not only can the more obvious customs and practices be different, but subtle nonverbal communication and deeply held implicit views and beliefs about the world are apt to isolate the foreigner from the familiar social and meaning contexts (Merton, 1957).

Matheny, Ancock, Pugh, Curlette, and Cannella (1986) conducted a meta-analysis of recent experimental and quasi-experimental studies on stress coping and concluded that the two most promising strategies for combating stressors are social skills and problem solving. Moreover, these researchers found that social skills such as assertiveness seem particularly promising in attacking stressors, as

training in these skills had the largest effect size among single treatments (1.28 ES). For most persons, other people may be the greatest source of stress; and the more skills one possesses in dealing with them, the lower one's overall stress level is likely to be. In addition, such skills may contribute significantly to the client's sense of control in social situation, thus reducing felt stress. The possession of effective social skills is likely to influence positively self-esteem and self-confidence, and it undoubtedly contributes to the development and maintenance of a social support network (Matheny et al., 1986).

Critique

The investigation and treatment of stress serves as a point of interface between the disciplines of psychology, medicine, physiology, endocrinology, nursing, sociology, and anthropology. In spite of its mass appeal, however, the science of stress lacks precision and integration. There is little consensus among research scientists across disciplines as to what constitutes stress in humans. Stress at times is defined as an inequality between perceived demands and resources (Lazarus, 1966), at other times as troublesome situations, events, or thoughts (Anderson, 1978), and yet at other times as the body's response to these troublesome situations, events, or thoughts (Selye, 1956). These definitional differences contribute significantly to the lack of precision in the scientific

study of stress. As can be seen from the selected studies cited above, although an impressive body of available research literature which addresses the topic of stress coping, the function of social skills, social competence, and social support system in the stress coping process is still in need for further clarity by means of empirical studies and this study will fulfill part of that need.

Additionally, one clear implication of this review is the need for multiple standardized measures to assess stress. According to Matheny et al's (1986) review of 54 studies in this field, it has been concluded that assessment of stress coping should include more outcome domains. Indeed, in researching a construct as multifaceted as stress, it is advantageous to employ a number of different measurement methods in order to obtain a more accurate evaluation of a treatment. Because stressors may affect us physically, psychologically and/or behaviorally, single-measurement methods are likely to prove inadequate in capturing this multiplicity of effects. (Matheny et al., 1986). This study will employ two different measures to assess subjects' psychological, behavioral, and physiological stress.

Relationship Between Social Skills and Depression

In testing the hypothesis about the instrumental behavior of depressed individuals Lewinsohn tended to focus on social skills. A study done by Lewinsohn and his

colleagues (Lewinsohn, Golding, Johannson, & Stewart, 1968) had subjects talking to each other via teletypewriters. Pairs of subjects took turns talking to each other and each subject could say as much or as little as he wanted to before ending his turn. Subjects from two groups, depressed and nondepressed, were randomly assigned to one of three types of diadic pairing - depressed-depressed, depressed-normal, and normal-normal. Each pair of subjects was tested in front of the teletype machines. The subjects were able to communicate with each other through the teletypewriters, which were connected through a wall between two rooms in which the subjects were seated. There was thus no visual contact between the subjects and they were unable to talk to each other except via the teletypewriters. For all subjects the number of words typed per person increased over the 45-minute session, but for depressed subjects the increased in output was much less than for nondepressed subjects. Thus, the hypothesis that depressed persons as a group are less socially skillful than nondepressed individual was supported in this study.

Wierzbicki (1984) conducted a research to examine Lewinsohn's model of depression by assessing the relationship between social skills, independent of current depression level, and subsequent depression. A total of 65 undergraduate students in Wierzbicki's (1984) study were administered the Beck Depression Inventory and two measures of social skills: the College Self-Expression Scale and the

Means-Ends-Problem-Solving Test. Two months later, depression was reassessed using the D30 Depression Scale. It was found that social skills measures were significantly correlated with currently assessed depression. It was also found that the best single predictor of future depression was current depression. A stepwise regression analysis indicated that, after partialling out the influence of current depression scores, two measures of social skills provided incrementally significant contributions to the prediction of future depression scores. This provides modest correlational evidence for Lewinsohn's social skill deficit model of depression. That is, social skills, independent of current depression, significantly increased the predictability of future depression.

With the recognition that an adequate analysis of the role of social competence in depression must separate the effects of actual competence deficits from those of a second potentially relevant personal variable - the individual's encoding, or perception of those competences, Lewinsohn, Mischel, Chaplin, and Barton (1980) conducted research with the aim to disentangle in clinical depression of these two potentially relevant personal variables: social competence (as perceived by others) and self-perception by the individual. In Lewinsohn et al.'s (1980) study, both self-ratings and ratings from observers were obtained for depressed, psychiatric control, and normal control individuals following a group interaction at

different times in the course of treatment. As expected, the depressed individuals initially rated themselves and were rated by others as less socially competent than the two control groups, and their self-perceptions improved with treatment. Surprisingly, the depressed were more realistic in their self-perceptions than the controls. Specifically, the controls perceived themselves more positively than others saw them, whereas the depressed saw themselves as they were seen. In the course of treatment the depressed not only rated themselves more positively, but began to increase the discrepancy between how they rated themselves and how they were rated. The results suggest that a key to avoiding depression is to see oneself less stringently and more favorably than others see one.

In response to the findings of Lewinsohn et al.'s study, Dykman, Horowitz, Abramson, and Usher (1991) also conducted a study to examine whether depressed persons' social skill deficits contribute to their more negative cognitions (relative to those of nondepressed persons) and whether this contribution is independent of their more negative schemata. The authors found that independently of their negative schemata, depressed subjects' social skill deficits explained a significant portion of the variance in their more negative interpretation of feedback (relative to nondepressed subjects'). This suggests that real deficits in depressed persons' performance compound the effects of their negative schemata and further contribute to their

negative cognitions. The results of Dykman et al.'s (1991) study, however, were contrary to the depressive realism findings obtained by Lewinsohn et al. (1980). That is, depressed and nondepressed subjects' self-ratings were comparably different not only from confederates' ratings but also from the peers' rating of them. Dykman et al.'s (1991) findings suggest that depressed and nondepressed subjects were equally accurate in rating their own performance (as defined by agreement with objective others' ratings). Thus, the illusory glow found among nondepressed persons in Lewinsohn et al.'s (1980) study was not supported in this study.

Cole, Lazarick, and Howard (1987) used 68 subjects to estimate the true relationship between social skill and depression. The subjects were assessed for levels of social skills and depression via multiple methods. When analyzed in the traditional manner, the results were consistent with previous research, i. e., correlations between social skill and depression ranged from .11 to .42. When confirmatory factor analysis was used to estimate the theoretical relationship between social skill and depression, a correlation of .85 was found. Thus, the authors concluded that the implication for Lewinsohn's theory of depression are quite profound.

Segrin (1990) also conducted a meta-analysis on 51 studies to assess quantitatively the magnitude and reliability of the association between depression and

social skill deficits. The results showed moderate, but not unequivocal, support for the social skill deficit theory. Depression was most strongly related to social skill deficit when they were measured via self-reports. Observer-ratings and behavioral analyses of social skill revealed weaker and more sporadic relationships with depression.

Vredenburg, O'Brien, and Krames (1988) investigated the nature of college-student's depression as well as its relation to personality characteristics and experiences unique to college life. The results of the study demonstrated that the depression that college students experience, though relatively mild in severity, are more than simple, transient mood swings. Moreover, the finding that depressives felt the intensity and frequency of their depressions to have increased since they started university raises the question of whether events in college that are perceived as stressful are also related to the occurrence of depression. Despite the mild level of their depressions, it was found that approximately half the depressed students reported having considered committing suicide. This finding is in accord with previous research (Beck & Young, 1978). The results suggested, in regard to individual personality characteristics, that depressed students are deficient in the interpersonal skills necessary for success in the college environment and that they make unrealistic demands on themselves and others while lacking the steadfastness to realize these objectives. The findings regarding

experiential variables also revealed that depressed students reported experiencing less success at making friends. Accordingly, Vredenburg et al. (1988) suggested that the most appropriate form of intervention for depressed college students may be to provide training programs in areas such as social skills, assertiveness, and study habits.

Critique

The correlational studies of depression reviewed above have been subjected to the criticism that correlations between social skills deficits and depression do not prove that these deficits cause depression. It is equally plausible that depression produces decreased effectiveness in social responding. More powerful tests of this model can be conducted in experimental studies wherein social skills are manipulated and subsequent depression levels assessed. Such manipulative studies have been reported in the treatment literature. For example, several studies have demonstrated social skills training to be an effective intervention for the treatment of mild to moderate depressions (Hammen, Jacobs, Mayol, & Cochran, 1980; Hersen, Bellack, & Himmelhoch, 1980; LaPointe & Rimm, 1980; Lewinsohn, Antonuccio, Steinmetz, & Teri, 1984). It remains to be shown, however, whether such training is an effective technique for preventing future episodes of depression. This study will add to the small body of the research focusing on preventing the episodes of depression.

Studies concerned with the relationship between social skills and depression have generally been limited to a specific population such as psychiatric patients and undergraduate students. None of the reviewed studies addresses the adequacy of social skills relative to the depression of graduate students, and this also is a special population. More research is needed in assessing the effect of social skills relative to depression in graduate students. This study adds to this need.

Relationship Between Social skills and Social Anxiety

Social anxiety is a frequent clinical complaint, especially among college-age individuals (Martinson & Zerface, 1970). Landy and Gaupp (1971) surveyed 494 male and female college students and also found that interpersonal situations appeared to be a major stimulus for people's fears and anxieties.

Furnham and Bochner (1982) extended social skills specifically to an analysis of cross-cultural interaction. They suggested that for visitors to an unfamiliar culture (tourists, students, immigrants, refugees) the mundane, everyday interpersonal encounters with members of the host society are a source of anxiety, and misunderstanding as they are unaware of the risks, conventions, and implicit messages being given. In the extensive study of 150 foreign students, Furnham and Bochner (1982) found that the anxiety experienced by sojourners was largely due to their lack of

the requisite social skills with which to negotiate specific social situation.

College male undergraduates, either high frequency daters (HFD) or low frequency daters (LFD), were compared on a variety of self-report, peer-rating and behavioral measures of social competence in heterosexual interaction in Arkowitz, Lightenstein, McGovern, and Hines' (1975) study. It was found that self-report measures of social anxiety and peer ratings of social anxiety and skill showed highly significant differences between the two groups. That is, the social anxiety of HFD was significantly lower than LFD's. Consistent with Dow, Biglan, and Glaser's (1985) conclusion, the "breadth of the social competence construct should not be underestimated" (p. 281), Haemmerlie, Montgomery, and Melchers (1988) also found that socially anxious college students might have deficits in personal and interpersonal functioning.

Greenwald (1977) also conducted a study to assess heterosexual behavior in high- and low-dating women across three laboratory interactions to identify constellations of social skilled or social anxious behavior that will differentiate these two dating groups. In the first two interactions, male assistants judged the female participants on global measures of social skill and social anxiety. Female judges rated the women on the same global measures from videotape. Behavioral measures of social skill and social anxiety were rated from the videotaped

interactions for both the male assistant and female subjects. It was found that there were some significant findings for global measures of social skill, but not for social anxiety. Thus, the results of Arkowitz et al.'s (1975) study were only partially supported in this research.

Fingeret and Monti (1983) examined relationships among social perception, social skill, and social anxiety in a psychiatric population to determine the role of social cognition in social performance. Patients participated in role-play situations, judged social appropriateness, and completed a self-report inventory. It was found that social perception was significantly correlated with ratings of social skill but not with ratings of social anxiety. However, social skills and social anxiety were significantly negatively correlated.

From the researches cited above, it seems to be reasonable to adopt the belief that social skill is negatively correlated with social anxiety; and a social skill training would have an effect on lessening participants' social anxiety. However, this line of reasoning was only partially supported in former experimental researches.

In Frich Elliot, Atsidades, Salva, and Denney's (1982) study, twenty-four hospitalized day patients were administered social skills training alone or in conjunction with stress management training. Relative to a minimal

treatment control, subjects in both the social skills training condition and the combined training condition showed significant improvements on behavioral measures of social skill. These improvements persisted over a 4-week follow-up and generalized to new situations not addressed in training. However, neither treatment condition had an impact upon self-reports of social anxiety or self-esteem.

Twenty-two female undergraduates from Baylor University were selected from a pool of 188 volunteers who reported social difficulties received either role-play training or demand-for-skill instructions in Frich's (1988) study. Role-play training, which consisted demand-for-skill instructions, covert rehearsal, "self-control" desensitization, and cognitive restructuring, was associated with less subjective and behavioral anxiety, greater skill in assertiveness, and less awareness of negative thoughts and feelings than demand-for-skill instructions alone. Frich (1988) therefore concluded that the role-play training was effective in reducing subjective and behavioral anxiety.

Wright (1976) compared a systematic desensitization (SD) and a social skill training (SST) to help undergraduates participate more actively and comfortably in class discussion. SD and SST led to significant improvements relative to a no-treatment control (NT) group. SST was superior to both SD and NT on observer ratings of frequencies of verbalizations in a simulated conference

section conducted in the laboratory. Whereas, neither treatment nor control condition yielded significant changes in observer ratings of anxiety or verbal performance in the natural environment. Wright (1976) suggested that the discrepancy between the laboratory measures and real-life ratings may be due to the differential social consequences expected in the two situations.

Haynes-Clements and Avery (1984) developed a systematic training program for shy college students. Twelve subjects (6 males and 6 females) were given 9 hours of social skills training, while 12 other subjects (6 male and 6 females) served as a wait-list control group. Results indicated that subjects in the experimental group, relative to the control group, significantly decreased their level of social anxiety.

Critique

The need for further systematic research on the relationship between social skills training and social anxiety is evidenced by the inconsistency of the outcomes of present studies. There are two popular models for social skills training. The skill deficit model (McFall, 1976) suggests that social dysfunction results from a lack of social skills within the individual's behavioral repertoires. In accordance with this model, one's social anxiety is due to skill deficit, and the principal goal of treatment should be to assist participants to acquire the skills that they currently lack. In contrast, the anxiety

inhibition model (Salter, 1949; Wolpe, 1973) asserts that individuals possess the requisite skills but performance of these skills is inhibited by anxiety that has become conditioned to interpersonal settings. This model suggests that the appropriate focus of treatment should be the reduction of social anxiety. In other words, social anxiety is viewed as the cause of social dysfunction, and not as a result. Although the anxiety inhibition model has been believed to be more appropriate for college population (Royce & Arkowitz, 1978), the studies comparing social skills training with systematic desensitization aimed at reducing participants' social anxiety (Marzillier, Lambert, & Kellet, 1976; Weinman, Gelbart, Wallace, & Post, 1972) have generally shown weak. In my study, participants who are graduate students will be administered social skill training which is based primarily on skill deficit model. The results might not only add to the literature the possible effectiveness of social skill training on social anxiety but also might shed light on the distinction between skill deficit and anxiety inhibition accounts for foreign students' interpersonal functioning.

Taiwanese Graduate Students and Social Adjustment

For many people, admission to graduate school marks the beginning of a period of major, unavoidable life changes. In one study, over half of the first- and second-year graduate students tested on the Social Readjustment

Rating Scale reported life changes that placed them in the life crisis category (Goplerud, 1977). Given the fact that even the American graduate students have to make great efforts to adapt to graduate work, it is not surprising that entrance to graduate school for foreign students would mark the beginning of a period of high risk for physical and psychological problems (Alexander, et al., 1981; Guglielmino & Perkins, 1975; Hagey & Hagey, 1972; Manansala, 1977; Pedersen, 1991; Reiff, 1972; Sharma, 1973).

Using questionnaires and adaptive capacity scales of Minnesota Multiphasic Personality Inventory, Klein (1971) found that the great disparity between Asian and American cultural life-styles caused Asian foreign students particular difficulty, with social isolation as a major problem. Collins (1977) administered the Mooney Problem Checklist to foreign students and found major problems, in descending order of importance, to be (a) lack of social and recreational activities; (b) inadequate finances, living conditions, and employment; (c) problems with home and family; (d) difficulties in personal psychological reactions; and (e) difficulties with courtship, sex, and marriage. The similar results were also found in some more recent studies (Adelegan & Parks, 1985; Lee, Abd-Ella, & Burke, 1981). These problems may be manifested as social withdrawal, inability to sleep well, sexual problems,

sadness and depression, academic problems, loss of self-esteem (Marion, 1986), and loneliness (Mohammadreza, 1982).

To clarify the relation between loneliness and depression and the distinction between emotional and social loneliness, Hsu, Hailey, and Range (1987) conducted a study by administering the Beck Depression Inventory, the UCLA Loneliness Scale, the Belcher Extended Loneliness Scale (BELS), and self-report questions about social and emotional loneliness to the following four groups: (a) foreign (Taiwanese) students in American universities, (b) Taiwanese students in Taiwanese universities, (c) American students in American universities, and (d) depressed American clients. Consistent with predictions, depressed clients reported not only more depression but also more overall loneliness than did any of the other groups. In addition, there were three significant differences between foreign students and Taiwanese students. First, foreign student scored significantly higher than Taiwanese students on the BELS factor of Social Alienation. Second, a higher proportion of foreign students than Taiwanese students reported feeling socially lonely. Third, a larger percentage of Taiwanese students than foreign students were classified as emotionally lonely. The first two of these differences reflect the social loneliness that would be expected to accompany the cultural displacement involved in being a foreign student. This investigation also supports

the notion that foreign students must deal with social loneliness rather than emotional loneliness.

In Sue and Zane's (1985) study, the academic performance, majors, study habits, and socioemotional adjustment of 177 Chinese university students were examined. The 177 subjects were students enrolled at the University of California, Los Angeles (UCLA). Of 177 students, 53% were foreign born. Of the foreign born, 44% were from Taiwan, 37% from Hong Kong, 4% from mainland China, and 4% from Burma, and the remaining were from other parts of the world. Data were collected through official university records, questionnaires, and inventories (Dimension of Self-Concept, DOSC; Omnibus Personality Inventory-Form F, OPI). Because the authors were particularly interested in achievement and adaption for foreign-born Chinese, the sample was divided into three groups: (a) American-born Chinese students, (b) early immigrant Chinese students, and (c) recent immigrant Chinese students. Results of this study indicate that the grades of Chinese students exceeded those of other students at UCLA. The high level of academic performance was true even in the case of recent immigrants who have extremely limited English verbal skills and who presumably experience some degree of culture shock. Despite the fact that recent immigrant, early immigrant, and American-born Chinese students perform equally well, recent immigrants apparently used certain strategies to compensate for limited English

proficiency by taking reduced courseloads, studying more hours, and limiting career majors. In addition, there also was evidence that the recent immigrants were less socio-emotionally adjusted than were other Chinese students. The happiness measure, the DOSC, and the OPI offer convergent evidence that recent Chinese immigrants are less happy and more anxious, lonely, and isolated than are early immigrants or American-born Chinese individuals.

Ying and Liese (1990) conducted a research to examine the process of adaptation of a group of Taiwan foreign students who embarked on graduate studies in the U. S. in the fall of 1988. Specifically, this study examined the impact of prearrival preparation and resources on initial postarrival emotional well-being and adjustment to the U. S. Prior to their departure for the U. S., 172 participants were given paper-pencil measures to complete the CES-D, the CPI structural and femininity scales, and a questionnaire designed specifically for this study. Assessment of adjustment and postarrival depressive level was obtained at the follow-up, which occurred 2 to 3 months after arrival in the U. S. Instruments were mailed to the students, including the CES-D and the Adjustment Composite. It was found that there was a significant increase in depressive level from pre- to postarrival and higher postarrival depressive level was best predicted by higher prearrival depression in both genders. Initial adjustment was predicted by higher subjective ratings of English ability

for both genders; more outgoing and self-confidence for men; and availability of a larger potential social support network in the U. S. for women. Given this, the authors suggested that predeparture programs aimed at confidence building would appear most likely to result in improved initial adaptation. Since foreign students are reluctant to seek out campus counseling services due to the stigma attached and unfamiliarity with such services (Alexander, et al., 1981; Mau & Jepsen, 1988; Sue & Kirk, 1975), the authors believed that predeparture (preventive) intervention is particularly important and likely to be beneficial. They also suggested assertiveness training and establishing and strengthening ties between new students and future support networks are likely to facilitate initial adaptation of the students.

According to Furnham and Bochner (1982), people who are new to a culture will not have been socialized in the rules and routines of behavior pertaining to that society, and will therefore at least initially be socially unskilled in their new environment. Many of these tend to be highly skilled in the verbal and non-verbal facets of interaction of their own society, and find their inadequacy in the new culture particularly frustrating and embarrassing. Ordinary everyday situations such as attending parties, making contact with the opposite sex, ordering meals, shopping, even using the bathroom, all activities which hitherto presented no problems, suddenly become major obstacles.

Furnham and Bochner (1982) suggested that the social skills training based on the skill deficit model has clear implications for the understanding and management of social-cultural incompetence. The theoretical guidelines suggested by Furnham and Bochner (1982) for remedial action are quite clear: First, it is necessary to identify the specific social situations which trouble that particular sojourner, and then give the individual specific training in those skills that are lacking.

Critique

The findings of studies cited above indicate that for some Taiwanese students, particularly recent arrivals, face significant social and academical hardships. Sue and Zane's (1985) study reaffirm the ecological reality that such hardships exert some type of impact, adverse or otherwise, on human functioning. This impact has received little attention in recent reports on the Taiwanese because of reliance on grade point average and graduation as the sole indicators of academic success. In fact, many Taiwanese students may need counseling or mental health services. Among the various intervention strategies, Ying and Leise's (1990) suggested that predeparture intervention is particularly important and likely to be beneficial.

An abundance of research (Pendleton & Furnham, 1980; Trower, Bryant, & Argyle, 1978) supports the feasibility of the social skills training method for same culture, and, or subculture clients. The same research suggests few reasons

to suppose that these social skills training procedure would not work with persons from one society learning the social customs of another, quite divergent, culture. However, this proposition still awaits empirical verification, and this study will add to that need.

Summary of Research and Relationship to problem

Social skills training which based on Bandura's social learning theory has been suggested to have a positive impact on the individual's development of social competence. However, the relationship between social skills, stress, depression, and social anxiety still await to be clarified by means of empirical study. Moreover, investigators in this area did not go beyond the remedial strategy and respond to the needs of foreign students and trainig them in a preparatory manner to confront future skill-demanding situations. The purpose of this study is to examine the effect of social skills training on Taiwanese graduate students in their self-perceived stress, depression, and social anxiety.

Chapter 3

Procedures

Population and Selection of the Sample

The target population for the present study is thirty-three thousand Taiwanese graduate students in the U. S. Most of them are young, from middle- to upper middle- class backgrounds and with above-average intelligence (Ying & Liese, 1990).

The samples of the present study were recruited at four seminars sponsored by the Taiwan Ministry of Education, which aimed to prepare students for future overseas study. The seminars were one day long and free for all students who wished to study abroad. The contents of these seminars were four lectures on common issues, such as how to validate visa; choosing a more prestigious school; Taiwan is on the turning point; and living well in a foreign country. The lectures were given by official persons and university professors. Recruitment occurred in the first week of July, 1992. The sample consisted of 60 students (33 male and 27 female; see Table 3.1) who volunteered to be subjects for the study. The students were told that this was a study to evaluate the effect of a certain kind of social skills training associated with the stress of overseas study. The samples were also told that when the study was finished, they would receive copy of a

Chinese newspaper for one month for their participation. They were further advised their individual results would be confidential and only group data would be reported.

Thirty volunteer subjects (16 male and 14 female; see Table 3.1) were randomly assigned to two experimental groups (15 subjects in each; see Table 3.2) and were trained with identical social skills by a same leader. The other thirty subjects (17 male and 13 female; see Table 3.1) were assigned to the control group without any treatment.

The participants ranged in age from 23 to 32 years, with a mean age of 26.45 and a standard deviation of 2.43. In terms of marital status, 78% were single and had never been married, and 22% were married. Most of the sample (82%) were in pursuit of a master's degree, and the rest (18%) expected to obtain a doctoral degree in the U. S. In terms of field of study, 41% were in engineering and computing science; 30% were in the social sciences and humanities; 18% were in business and management; 11% were in the natural/health sciences. The 31 different universities of the participants enrolled are located in 18 states. The names of 18 states are listed in Table 3. 3. The mean score of TOFEL of total subjects for this population was 563.77 (SD = 31.17). TOEFL (Test of English as a Foreign Language) is a standard test required of foreign students for college entrance, which is an indicative of language mastery. The possible range for

TOEFL score is 0 to 676.6 (Chen, 1992). In a survey (Chen, 1992), the mean score for 2627 Taiwanese graduate students who were in pursuit of a master's degree in U. S. was 556 (SD = 33). A score of 567.77 would indicate that the subjects of this study would not have serious difficulties in answering the items on the employed instruments.

TABLE 3.1

Table of number and sex of total samples (N = 60)

Group/Sex	Male	Female	Total
Experimental	16	14	30
Control	17	13	30
Total	33	27	60

TABLE 3.2

Table of subject number and sex distribution of two experimental groups (N = 30)

Group/Sex	Male	Female	Total
1	6	9	15
2	10	5	15
Total	16	14	30

TABLE 3.3

Table of the States in which the samples studied (N = 60)

States	Number of Participant
Arizona	4
Arkansas	1
California	5
Colorado	3
Florida	1
Indiana	1
Illinois	3
Iowa	5
Massachusetts	4
Missouri	1
New Jersey	2
New York	15
North Carolina	1
Ohio	4
Oklahoma	1
Pennsylvania	3
Tennessee	1
Texas	5
Total	60

Definition of Terms

1. Observational Learning. The process whereby information is acquired by attending to events in the environment.
2. Model. Anything that conveys information to an observer. In Bandura's theory, a model can be such things as a person, a film, a picture, instructions, a description, an animal, television, or a newspaper.
3. Vicarious Reinforcement. The process by which observing another person's behavior being reinforced increases the probability of the observer acting in a similar manner.
4. Abstract Modeling. The situation where observer are presented a variety of modeling experiences from which they extract a common rule or principle. Once extracted, the rule or principle can be applied to new situations.
5. Social Skills. An individual's abilities to communicate with others in a manner that fulfills one's rights, requirements, satisfactions, or obligations to a reasonable degree without damaging the other person's similar rights, requirements, satisfactions, or obligations, and shares these rights, etc., with others in free and open exchange.
6. Stress. Stress is defined as troublesome situations, events, or thoughts, and the body's response to these troublesome situations, events, or thought.

Data Gathering Procedure

Experimental subjects participated in six, ninety-minute sessions of social skills training designed to increase social competence. The treatment extended over a two week period, i. e., from July 18, 1992 to August 1, 1992. The training procedures were directed and associated specifically to the social setting in U. S.

The dependent variables are perceived stress, depression, and social anxiety. The Perceived Stress Scale and the Physiological and Behavior Stress Inventory were used to assess stress. The Beck Depression Inventory assessed the level of perceived depression. The Social Avoidance and Distress Scale was used to assess social anxiety.

Pretest and posttest were administered by mail in Taiwan. All subjects were pretested with the four self-report instruments two weeks prior to the first meeting of the experimental groups. This two-week interval was considered to be helpful to control for the effects of pretesting on subsequent behaviors. All subjects were tested with the same instruments during the week following the final treatment session. The same instruments were also mailed to all subjects at the follow-up, which occurred 1 to 2 months after their arrival in U. S. i. e. September and October of 1992.

There was a 100% response rate for the pretest. Two subjects in the control group who did not respond to the posttesting, and one subject in the experimental group and

three subjects in the control group who did not respond to the follow-up testing, were reached by telephone and were also sent follow-up letters along with the tests and self-addressed envelopes. This follow-up brought the response rate for the posttest and follow-up test to one-hundred percent (100%).

Selection of Social Skills

A variety of methods have been used by the author to select the social skills to be taught to the experimental groups. The selection was first based on literature reviews. From the reviews, "50 Structured Learning Skills" developed by Goldstein, et al., (1980) was found to have gained considerable attention and also to have been clinically supported by many researchers (e. g. Bleeker, 1980; Fleming, 1977; Golden, 1975; Raleigh, 1977; Swanstrom, 1978; Trief, 1976) in recent years, therefore, they were used to construct a questionnaire (Appendix A). Then a survey of fourteen Taiwanese graduate students who are studying in the U. S. was conducted. These graduate students were all at their first year in the U. S. Two are studying in a college located in the eastern part of the U. S. The others are studying in an university located in the southern part of the U. S. Respondents were asked to identify three social skills which they considered to be most useful at the time when they were new comers from the questionnaire. The identified skills which had the largest

frequencies were: 1. asking for help (19%); 2. expressing affection (12%); 3. dealing with fear (10%); 4. making a complaint (10%); 5. dealing with being left out (10%); and, 6. dealing with embarrassment (7%). Thus, these six social skills were selected to construct the content of training sessions.

Treatment Procedure

The independent variable were six, ninety-minute sessions designed to increase social competence. The social skills training component for the experimental group employed instructions, modeling, coaching, covert and overt rehearsal, corrective feedback, and social reinforcement. These procedures were used to teach a particular set of verbal and nonverbal skills associated with each of six selected social response classes: asking for help; expressing affection; dealing with fear; making a complaint; dealing with being left out; and dealing with embarrassment. These procedures were directed and associated specifically to the social setting in the U. S. The training sessions were 9 hours long in duration. Subjects in the experimental groups met three times a week, and the training extended over two weeks. Since it is hard to find a qualified Taiwanese leader with overseas-study experiences, and also to assure that two experimental groups would received identical treatment, the author of

this study taught the courses. A more thorough description of each training session is included in the appendix B.

Instrumentation

Four instruments were employed as measures of the differential effects of the treatment.

Perceived Stress Scale

The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) is a 14-item self-report inventory designed to measure the degree to which individuals appraise situations in their lives as stressful. For each item, subjects rate how often during the past two weeks they felt a certain way. Responses are made on a five-point scale (0. never; 1. almost never; 2. sometimes; 3. fairly often; 4. very often). All items are summed to produce a total score that may range from 0 to 56. A typical item is as follows:

In the last month, how often have you been upset because of something that happened unexpectedly?

The scale attempts to represent situations where persons perceive that their demands exceed their ability to cope. In three validation samples done by Cohen et al. (1983), coefficient alpha reliability was .84, .85, and .86. Two-day test-retest reliability was .85.

Many researchers share the belief that a valid measure of appraised stress should not be totally independent of

psychopathology (Cohen, et al., 1983; Lazarus, DeLongis, Folkman, & Gruen, 1985). In Cohen et al.'s study (1983), data revealed that correlations between the PSS and physical symptomatology are reduced but remained statistically significant even after partialing out depressive symptomatology. Thus, this established for this study that the PSS was associated with physical symptoms even when the possible role of psychological symptoms was controlled for. Similar results were found in Cohen's (1986) later study with a sample of 125 college students. In another two studies of subjects attempting to quit smoking independent or with minimal aid, similar evidence for the independence of the PSS and psychological symptoms was also found (Cohen, 1986; Glasgow, Klesges, Mizes, & Pechacek, 1985). In sum, the PSS provided significant prediction of a variety of health-related outcomes independent of psychological and physical symptomatology.

Physiological and Behavior Stress Inventory

The Physiological and Behavior Stress Inventory (PBSI; Decker, Williams, & Hall, 1982) reported having a test-retest reliability coefficients of .91 (over 2 weeks) and .87 (over 6 weeks) on a pilot study of this instrument involving college students. In one study of stress management, college students receiving stress management training scored lower in the PBSI than the students who received "success" treatment (Williams, Decker, & Libassi,

1983). The 29 items on the PBSI ask subjects to indicate whether or not they exhibit such symptoms of stress as drug use, gastrointestinal problems, hypertension, fatigue, exhaustion, and presence of type A characteristics (excessive ambition, rapid speech, competitiveness, impatience, hostility, and inability to relax). A yes response receives a score of 1; a no response receives a score of 0. No studies describing the validity of the PBSI have been reported in the literature.

Beck Depression Inventory

The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item inventory of self-reported depression during a week prior to test administration. Each item is scored from 0 to 3, and all items are summed to produce a total score that may range from 0 to 63. A typical item is as follows:

- 0 I can sleep as usual
- 1 I wake up more tired in the morning than I used to
- 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
- 3 I wake up early everyday and can't get more than 5 hours sleep

Internal consistency reliability of the BDI was been estimated at between .81 and .85 (Dobson & Breiter, 1983; Vredenburg, Krames, & Flett, 1985), and the correlation of

the scale with clinicians' depth-of-depression ratings yielded a coefficient of .79 (Bumberry, Oliver, & McClure, 1978). Correlations with other depression scales range from .78 to .80 (Hammen, 1980; Hatzenbuehler, Parpal, & Matthews, 1983).

Social Avoidance and Distress Scale

Among the most widely used self-report inventories in social anxiety studies is Watson and Friend's (1969) Social Avoidance and Distress Scale (SAD; Haemmerlie, et al., 1988; Turner, McCanna, & Beidel, 1987). The SAD is a 28-item true-false inventory which assesses distress and discomfort in interpersonal interactions and deliberate avoidance of social situation. Sample items include "I often find social occasions upsetting" and "I try to avoid talking to people unless I know them well". The possible range for SAD score is 0 to 28. The items comprising the scales were selected using a rational analysis. Items concerning physiological signs of anxiety or impaired performance were specifically excluded.

Watson and Friend (1969) reported a one-month test-retest coefficient of .68, and Jones, Brigg, and Smith (1986) reported Cronbach's alphas of .88-.90 in undergraduate samples. Scores on the SAD were significantly related to peer ratings of social skills and observational measures (gaze, speech latency, number of words spoken) derived from two social interaction tasks

(Arkowitz, et al., 1975). High scorers preferred to work alone and tended to avoid social interactions (Watson & Friend, 1969), and reported more negative self-statements (Cacioppo, Glass, & Merluzzi, 1979) and fewer positive self-statements (Heimberg, Acerra, & Holstein, 1985) than low scorers in anticipation of an interaction with a person of the opposite sex. The SAD was significantly correlated with the Taylor Manifest Anxiety Scale ($r = .54$), the S-R Inventory of Anxiousness ($r = .45$), and a number of other instruments designed to assess anxiety and personality dimensions such as social approval and affiliation (Watson & Friend, 1969).

It may be noted that the reliability and validity estimates provided for the BDI as well as for the other three measures listed above represent estimates of the psychometric characteristics of these scales that are specifically relevant to college-student samples. Though may be more appropriate to have measures specifically designed for Taiwanese graduate students, or graduate students. However, these measures were chosen carefully and appeared to be the best currently available.

Research Design

The experiment is a 2 x 3 factorial design that includes one between-subjects factor (with social skills training experience or without social skills training experience) and one within- factor (pretest, posttest, and

follow-up test). A 2 x 3 multivariate analysis of variance was computed with multiple dependent variables.

The experimental population were assigned randomly to one of the two treatment groups and a control group. Each treatment group received identical information which were presented by the same instructor.

The pretest-posttest control group design controls for numerous threats to internal validity. History is controlled insofar as general historical events might be expected to influence all groups in a similar manner. Motivation, maturation, and testing were basically the same for experimental and control groups. The random assignment to treatment groups controls for the effect of regression, as well as that of selection (Borg & Gall, 1989).

Statistical Hypotheses

Hypothesis 1. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of perceived stress as assessed by the Perceived Stress Scale at posttest.

Hypotheses 2. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of stress as assessed by the Physiological and Behavior Stress Inventory at posttest.

Hypotheses 3. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of depression as assessed by the Beck Depression Inventory at posttest.

Hypotheses 4. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of social anxiety as assessed by the Social Avoidance and Distress Scale at posttest.

Hypotheses 5. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of perceived stress as assessed by the Perceived Stress scale at followup.

Hypotheses 6. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of stress as assessed by the Physiological and Behavior Stress Inventory at followup.

Hypotheses 7. Students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of depression as assessed by the Beck Depression Inventory at followup.

Hypotheses 8. Students participating in the social skills training group will not show statistically

significant differences from students in the control group in their level of social anxiety as assessed by the Social Avoidance and Distress Scale at followup.

Data Analysis

Repeated measures Manova were employed to assess group differences on the PSS, PBSI, BDI, and SAD from pretesting to posttesting and follow-up testing. The post hoc univariate F tests were computed when significant multivariate differences arose.

Ethical Considerations

Procedures as outlined by the Human Subjects Research Committee of the College of William and Mary were followed. Written consent forms were obtained for all experimental and control subjects. The consent form is included in the Appendix C.

All subjects were told before they participated in the study that all the data from them would only be accessed by the researcher.

A statement that the study involved research, an explanation of the purposes of the research and expected duration of the subjects' participation, and a description of the procedures to be followed were given to subjects before their participation.

Dr. Hweigh-Chin Liu, Director of the Counseling Center, Shui Chow University in Taiwan, assisted subjects who became distressed by the study.

After the analyses of the follow-up tests, all subjects were mailed a letter in which a general description of their coping condition were stated. Suggestions about how to cope with stress were also outlined in the letter. Subjects were encouraged to make contact with the researcher whenever they need consultation.

Limitations of the Study

1. The pretest might act as part of the experimental treatment and thus affect research results.
2. Since it was virtually impossible to obtain the cooperation of all subjects selected by random sampling, the samples of this research were volunteers, which may limit the external validity of the research results.
3. Since the instruments employed in this study are all self-reported inventory, we can never be sure of the degree to which the subjects' responses on the inventories reflect their true attitude. Research indicates, however, that these instruments possess sufficient reliability and validity to justify their use.

Chapter 4

Analysis of Results

The purpose of this study was to determine the effects of social skills training in the prevention of perceived stress, depression, and social anxiety of Taiwanese graduate students in the United States. Subjects were Taiwanese graduate students. Testing was administered pretest, posttest and follow-up test to two experimental and one control group. The experimental groups (n=30), led by the same instructor, were trained with identical programs. The control group received no treatment. Tests were collected and scored, and the resultant data was analyzed using the Statistical Package for the Social Sciences (SPSS). The means and standard deviations for all pretest, posttest and follow-up test scores were computed. The analyses of variance were computed on all tests using the SPSS Package, MANOVA.

This study addressed the following research question:

What will the effects of social skills training be on the prevention of perceived stress, depression, and social anxiety of Taiwanese graduate students in the U. S.?

Before examining the data for the effects of experimental treatment, the data was examined with a series of MANOVAs and univariate analyses of variances (ANOVAs)

to determine whether the skills training and control groups differed on the dependent measures at pretest. No significant differences were found in the dependent measures at pretest scores (see Table 4.3; 4.4; 4.5; 4.6).

A series of 2 X 3 (condition X time) repeated measures MANOVAs and ANOVAs were conducted to assess change across time in the dependent variables.

A repeated measures Manova on the PSS, PBSI, BDI, and SAD from pretesting to posttesting and follow-up testing yielded no significant effect for treatment, $T = .054$, $F(4, 55) = .74$, $p > .05$. The trial effect was significant, $T = 1.21$, $F(8, 51) = 7.71$, $p < .05$, and also the interaction, $T = .54$, $F(8, 51) = 3.47$, $p < .05$ (see Table 4.1). Means and standard deviations of the PSS, PBSI, BDI and SAD at pretest, posttest, and follow-up test of experimental and control groups are presented in Table 4.2.

The main effect of social skills training treatment is important for the purpose of the present study. However, because trial (assessment time) is included in this main effect, and because there is a significant Treatment X Trial interaction, an analysis of the simple main effects of treatment was undertaken separately for each dependent variable and each trial.

TABLE 4.1

Table of Results of MANOVA

Source	Hotellings	Appro.	Hypoth.	Error DF	Sig. of
	Value	F	DF	DF	F
<u>Between Subjects</u>					
Group	.054	.74	4	55	.571
<u>Within Subjects</u>					
Trial	1.21	7.71	8	51	.000*
<u>Interaction</u>					
Group/Trial	.54	3.47	8	51	.003*

* = significant at .05 level

TABLE 4.2

Means and Standard Deviation of Pretest, Posttest, and Follow-Up Test of Experimental and Control Groups

Measure and Group	Assessment Time					
	<u>Pretest</u>		<u>Posttest</u>		<u>Follow-up</u>	
	M	SD	M	SD	M	SD
PSS						
Experiment	23.90	6.58	20.83	6.42	22.30	6.52
Control	22.53	7.12	21.16	7.08	26.40	8.24
PBSI						
Experiment	5.17	4.74	3.57	3.79	2.73	2.72
Control	3.47	3.45	3.13	3.29	4.57	4.00
BDI						
Experiment	7.47	5.82	4.90	5.01	4.23	3.34
Control	5.27	7.57	3.80	5.28	6.87	7.35
SAD						
Experiment	10.77	5.97	8.53	5.58	8.67	5.49
Control	11.43	7.03	10.50	6.83	11.43	6.88

HYPOTHESIS 1

This hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of perceived stress as assessed by the Perceived Stress Scale at posttest.

Univariate analyses and an examination of the relevant means (see Table 4.3 & 4.2) revealed no significant differences in the posttest of PSS between experimental and control groups. Therefore, Hypothesis 1 was accepted. Figure 1 graphically illustrates the interaction of treatment and trial on PSS.

HYPOTHESIS 2

This hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of stress as assessed by the Physiological and Behavior Stress Inventory at posttest.

Univariate analysis of variance and an examination of relevant means (see Table 4.4 & 4.2) revealed that there was no significant difference on the posttest of PBSI between experimental group and control group. Therefore, Hypothesis 2 was accepted. Figure 2 graphically illustrates the interaction of treatment and trial on PBSI.

HYPOTHESIS 3

This Hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of depression as assessed by the Beck Depression Inventory at posttest.

Univariate analysis of variance and examination of relevant means (see Table 4.5 & 4.2) revealed that there was no significant difference on the posttest of BDI between experimental and control groups. Therefore, Hypothesis 3 was accepted. Figure 3 illustrates the interaction between treatment and trial on BDI.

TABLE 4.3

Hypothesis 1 - Univariate Analysis of Variance on the
Pretest, Posttest, and Follow-up PSS Scores of Experimental
and Control Group

Univariate F-tests with (1, 58) D.F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
Pretest	28.017	2727.167	28.167	47.037	.596	.433
Posttest	1.667	2648.333	1.667	45.661	.037	.849
Follow- up	252.150	3241.500	252.150	55.888	4.512	.038*

* = significant at the .05 level

Figure 1
Illustration of Interaction Between Treatment
and Trial Factors on PSS Scores

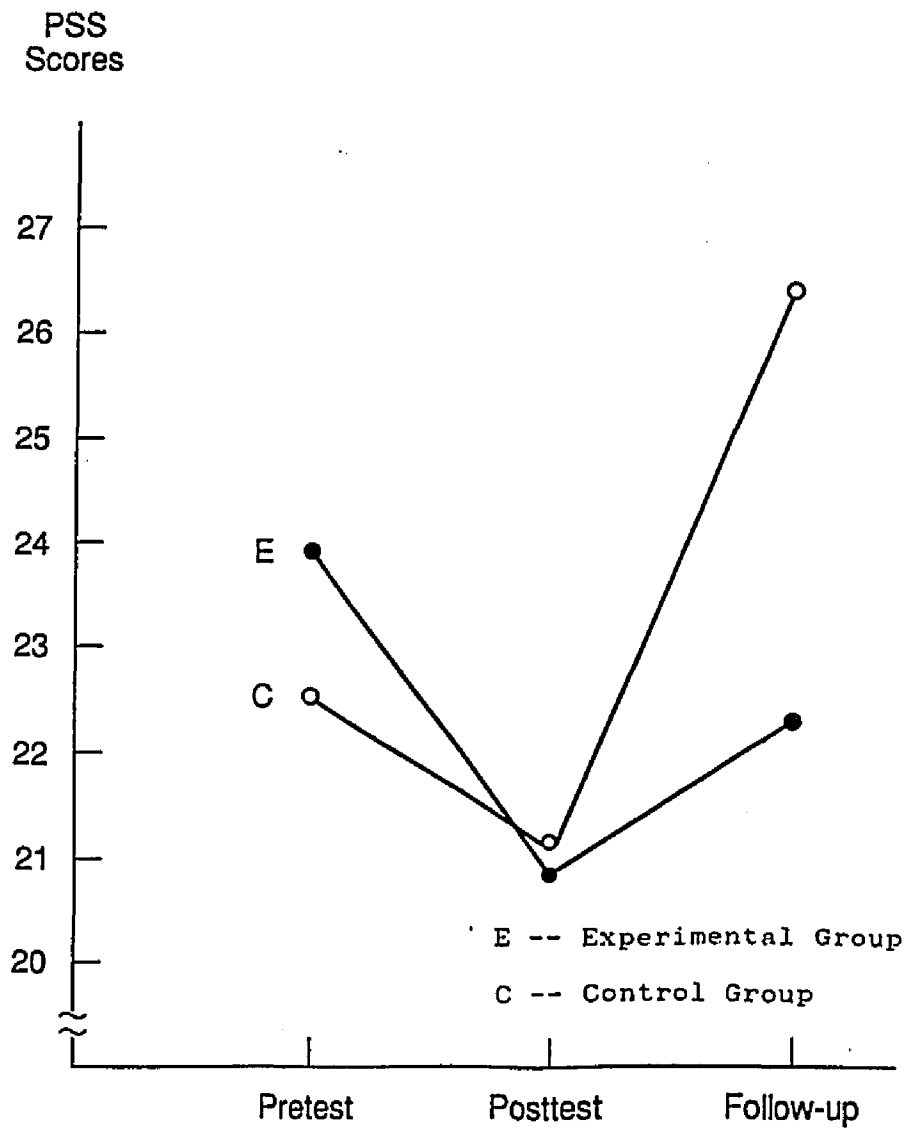


TABLE 4.4

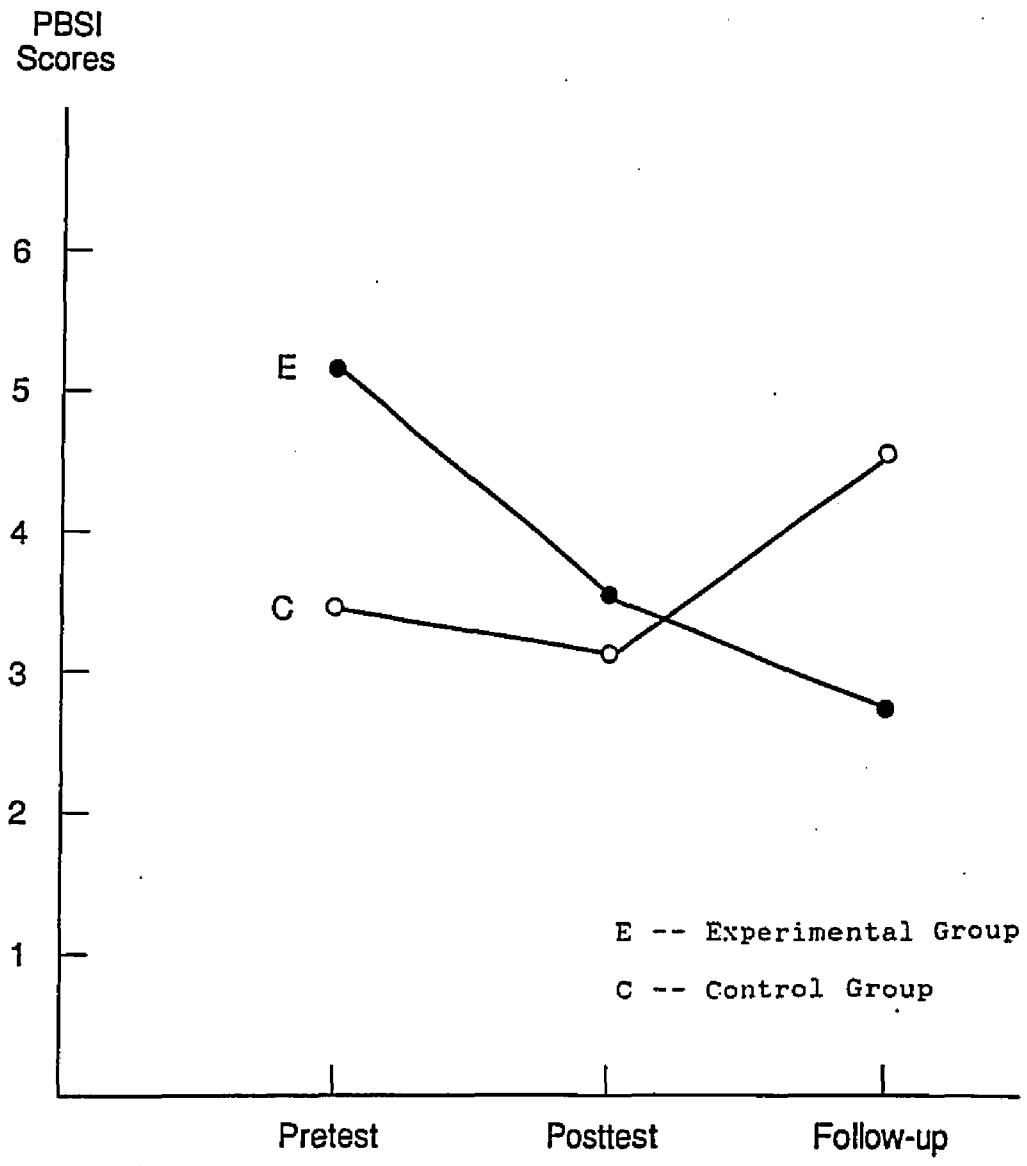
Hypothesis 2 - Univariate Analysis of Variance on the
Pretest, Posttest, and Follow-up PBSI Scores of
Experimental and Control Group.

Univariate F-tests with (1, 58) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
Pretest	43.350	995.633	43.350	17.166	2.525	.117
Posttest	2.817	728.833	2.817	12.566	.224	.638
Follow- up	50.417	679.233	50.417	11.711	4.305	.042*

* = significant at the .05 level

Figure 2
Illustration of Interaction Between Treatment
and Trial Factors on PBSI Scores



HYPOTHESIS 4

This hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of social anxiety as assessed by the Social Avoidance and Distress Scale at posttest.

Univariate analysis of variance and an examination of relevant means (see Table 4.6 & 4.2) revealed no significant differences on the posttest of SAD between experimental and control groups. Therefore, Hypothesis 4 was accepted. Figure 4 illustrates the interaction between treatment and trial on SAD.

HYPOTHESIS 5

This hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of perceived stress as assessed by the Perceived Stress Scale at followup.

Univariate analysis of variance and an examination of relevant means (see Table 4.3 & 4.2) revealed a significant difference in the follow-up test of PSS between experimental group and control group, $F(1,58) = 4.512$, $P < .05$. Therefore, Hypothesis 5 was rejected.

HYPOTHESIS 6

This hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of stress as assessed by the Physiological and Behavior Stress Inventory at followup.

Univariate analysis of variance and an examination of relevant means (see Table 4.4 & 4.2) revealed a significant difference in the follow-up test of PBSI between experimental group and control group, $F(1,58) = 4.305$, $P < .05$. Therefore, Hypothesis 6 was rejected.

HYPOTHESIS 7

This hypothesis states that students participating in the social skills training group will not show statistically significant differences from students in the control group in their level of depression as assessed by the Beck Depression Inventory at followup.

Univariate analysis of variance and an examination of relevant means (see Table 4.5 & 4.2) revealed no significant differences in the follow-up test of BDI between experimental and control groups. Therefore, Hypothesis 7 was accepted.

HYPOTHESIS 8

This hypothesis states that students participating in the social skills training group will not show

statistically significant differences from students in the control group in their level of social anxiety as assessed by the Social Avoidance and Distress Scale at followup.

Univariate analysis of variance and an examination of relevant means (see Table 4.6 & 4.2) revealed no significant differences in the follow-up test of BDI between experimental and control groups. Therefore, Hypothesis 8 was accepted.

TABLE 4.5

Hypothesis 3 - Univariate Analysis of Variance on the
Pretest, Posttest, and Follow-up BDI Scores of Experimental
and Control Group

Univariate F-tests with (1, 58) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
Pretest	7.600	2643.333	72.600	45.575	1.593	.212
Posttest	18.150	1535.500	18.150	26.474	.686	.411
Follow- up	104.017	1888.833	104.017	32.566	3.194	.079

Figure 3
Illustration of Interaction Between Treatment
and Trial Factors on BDI Scores

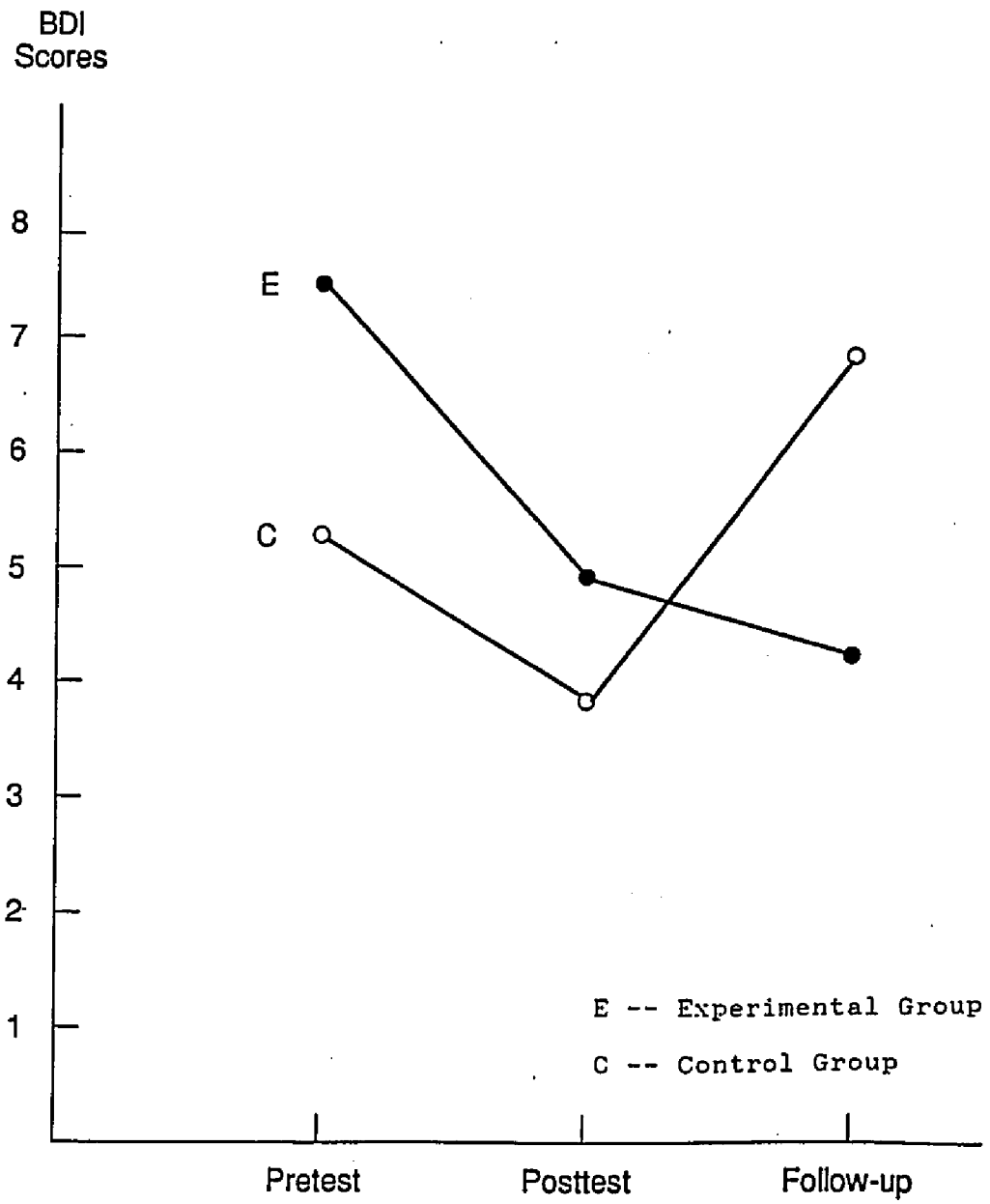


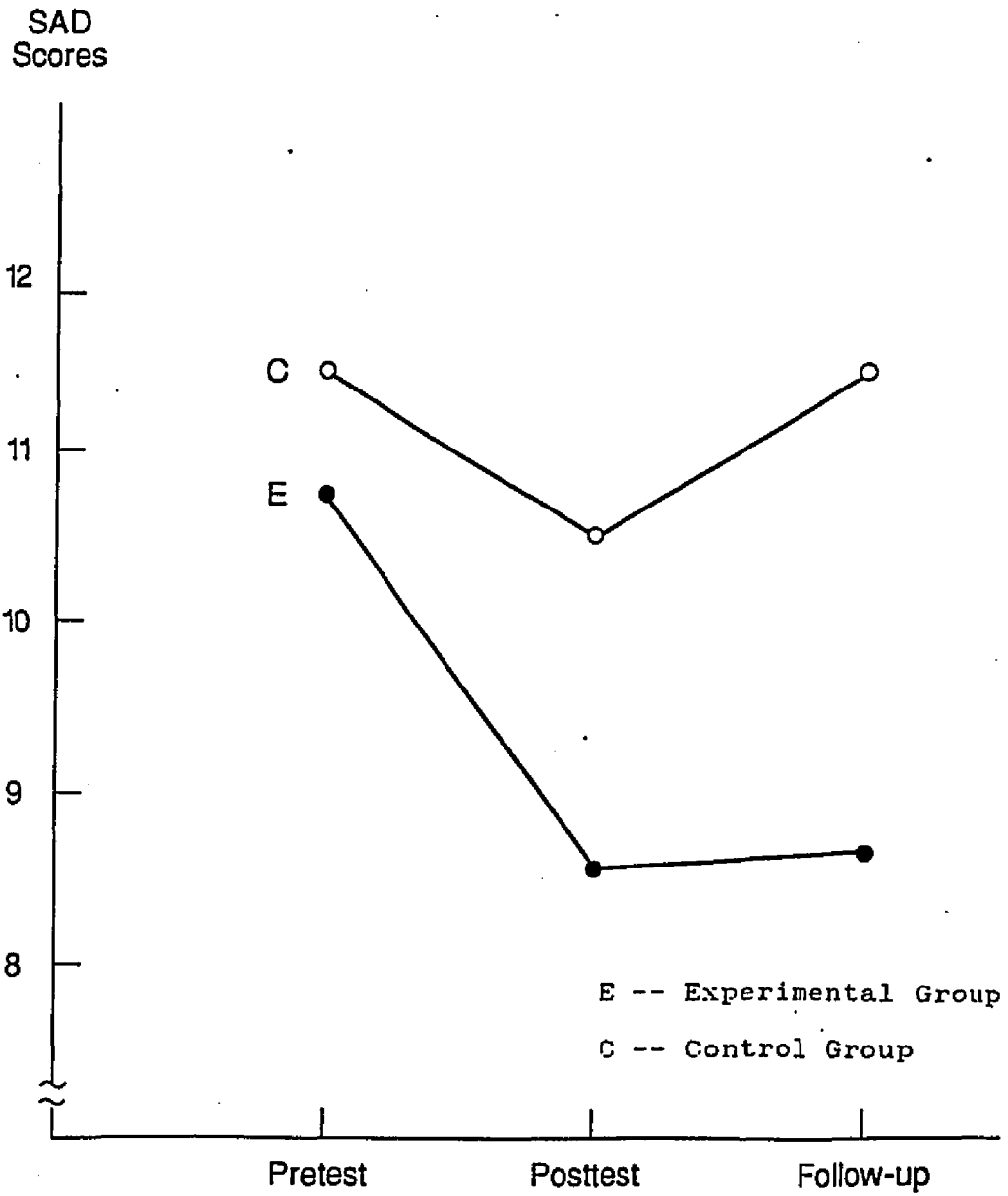
TABLE 4.6

Hypothesis 4 - Univariate Analysis of Variance on the
Pretest, Posttest, and Follow-up SAD Scores of Experimental
and Control Group

Univariate F-tests with (1, 58) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
Pretest	6.667	2466.733	6.607	42.530	.157	.699
Posttest	58.017	2254.967	58.017	38.879	1.492	.227
Follow- up	114.817	224.033	114.817	38.690	2.968	.090

Figure 4
Illustration of Interaction Between Treatment
and Trial Factors on SAD Scores



Chapter 5

Summary, Conclusions, and Recommendations

Summary

Over the last decade, the number of students studying in the U. S. from the island of Taiwan has largely increased. Although the high level of academic performance was true for this population (Sue & Zane, 1985), many of these students experienced of considerable stress, anxiety, and loneliness. Since difficulties with appropriate social behavior is a common problem for foreign students, special efforts could be made in helping the large number of Taiwanese students adjust to their daily social interaction when studying in the U. S.

Research in social skills training, based on Bandura's social learning theory, suggests a positive impact on the individual's development of social competence and also, to be a promising predeparture intervention for Taiwanese students (Ying & Liese, 1990). However, there is little, or any, empirical study to verify Ying and Liese's (1990) suggestion.

The purpose of this study was to determine the effects of social skills training in the prevention of stress, depression, and social anxiety of Taiwanese graduate students in the U. S. The objective of the study is to address the question:

"How does social skills training prevent the self-reported stress, depression, and social anxiety of Taiwanese graduate students in the U. S.?"

The research sample consisted of 60 Taiwanese students who were enrolled in 31 different U. S. universities in the Fall of 1992. The recruitment took place in Taiwan and occurred in the early July of 1992.

Thirty subjects (16 male and 14 female) who were randomly assigned to experimental condition were further randomly assigned to two treatment groups (15 subjects in each) and were led by a same leader with an identical training procedure. Thirty subjects in the control group received no treatment.

Experimental subjects participated in six, ninety-minute sessions of social skills training designed to increase social competence. The treatment began from July 18, 1992 to August 1, 1992. The social skills training component employed instructions, modeling, coaching, covert and overt rehearsal, corrective feedback, and social reinforcement. These procedures were used to teach a particular set of verbal and nonverbal skills associated with each of six selected social response classes: asking for help; expressing affection; dealing with fear; making a complaint; dealing with being left out; and dealing with embarrassment. These procedures were directed and associated specifically to the social setting in the U. S.

Findings and Conclusions

A statistical analysis of variance using the SPSS statistical package MANOVA and ANOVA revealed that students in treatment group and control group did not show significant ($p < .05$) difference in stress, depression, and social anxiety as measured by the Perceived Stress Scale, the Physiological and Behavior Stress Inventory, the Beck Depression Inventory, and the Social Avoidance and Distress Scale at pretest. The results also yielded the following information on each hypothesis:

Hypothesis 1: Students in the social skills training group did not show significant differences ($p < .05$) from students in the control group in their level of stress as assessed by the Perceived Stress Scale at posttest.

Hypothesis 2: Students in the social skills training group did not show significant differences ($p < .05$) from students in the control group in their level of stress as assessed by the Physiological and Behavior Stress Inventory at posttest.

Hypothesis 3: Students in the social skills training group did not show significant differences ($p < .05$) from students in the control group in their level of depression as assessed by the Beck Depression Inventory at posttest.

Hypothesis 4: Students in the social skills training group did not show significant differences ($p < .05$) from students in the control group in their level of social

anxiety as assessed by the Social Avoidance and Distress Scale at posttest.

Hypothesis 5: There were significant differences between students in the social skills training group and students in the control group on the follow-up score of the Perceived Stress Scale.

Hypothesis 6: There were significant differences between students in the social skills training group and students in the control group on the follow-up score of the Physiological and Behavior Stress Inventory.

Hypothesis 7: Students in the social skills training group did not show significant differences ($p < .05$) from students in the control group in their level of depression as assessed by the Beck Depression Inventory at followup.

Hypothesis 8: Students in the social skills training group did not show significant differences ($p < .05$) from students in the control group in their level of social anxiety as assessed by the Social Avoidance and Distress Scale at followup.

Discussion

Hypothesis 1, 2, 3, and 4

The results of this study indicate that participation in an Banduraian-based group skills training course for Taiwanese graduate students does not have short term effects on their perceived stress, depression, and social

anxiety. However, results may demonstrate a general trend toward more positive outcomes.

One of the possible explanation why this study may have failed to produce the expected results on posttest is the timing for treatment and posttesting. During the time when the students participated in this study they were preoccupied with things such as quitting job, visaing, dorm application, and immunization, ect. Therefore, the level of stress, depression, and anxiety was high during pretestting. However, during the time of posttestting, students had already undergone necessarily official procedures for overseas study, therefroee, it may be that the improvement on stress, depression, and social anxiety was already underway automatically during this period of time. This hypothesis is likely to be true for the mean scores of stress, depression, and social anxiety of posttest are all lower than the means scores of pretest for both experimental group and control group (see Table 4.2).

Another possible explanation for the absence of any differences between groups on posttesting measures may be the "attitudinal lag" factor. Hersen and Bellack (1976) concluded their review of the social skills literature by noting that changes in patients' self-reports were typically less "dramatic" than changes in their interpersonal behaviors. It has been suggested that an "attitudinal lag" may exist whereby changes in subjective self-appraisal accrue more slowly than changes in

interpersonal behaviors (Hersen, Eisler, Miller, Johnson, & Pinkston, 1973). In support of this notion, Marzillier and Winter (1978) reported that social skills training led to changes on self-report measures collected at follow-up but not at posttest. In the present study, differences did appear in two stress measures 4-6 weeks after treatment, however, this explanation seems untenable due to the absence of changes on depression and social anxiety measures in the follow-up study. A second follow-up study may be helpful to clarify this line of reasoning.

Hypothesis 5, 6, 7, and 8

The analysis of followup data reveals that the effects of social skills training on prevention of perceived stress for Taiwanese graduate students is supported. Such result is consistent with Cohen et al.'s (Cohen et al., 1986; Cohen & Wills, 1985; Cohen & Syme, 1985) theory of buffering effects of social support. It is likely that the six-session skills training have contribute to subjects' development of support perceptions, which help them to be more resistant to the future adverse psychological effects of environmental stressors; or it might be that the six-session treatment has equipped subjects with interpersonal skills that could be used to access social support, which help them to cope with future daily stress more effectively.

There are several possible explanation why this study may have failed to produce the expected outcome in depression and social anxiety variables as compared to perceived stress in the followup study. There were four measures employed in this study, PSS and PBSI were used to assess perceived stress and BDI and SAD were used to assess depression and social anxiety. PSS and PBSI are relatively more sensitive than BDI and SAD in that they assess current stress level of subject. Whereas, the construction of BDI was based on Beck's cognitive model of depression (Beck, Rush, Shaw, & Shaw, 1979), and SAD was also a measure of "social-evaluative" anxiety (Turner et al., 1987), which means that BDI and SAD may require more cognitive process in order to respond to than PSS and PBSI do. Thus, the designated time for the study may have too brief to produce change in cognitive functioning. Lengthening group sessions may enhance treatment effects on depression and social anxiety measures.

Another explanation for limited results on measures of depression and social anxiety related to characteristics of the present sample; subjects may have been insufficiently depressive or anxious to benefit from social skills training. The mean score for this samples on the pretest of depression and social anxiety inventory are 6.4 (SD = 6.70), and 11.1 (SD = 6.05). According to the developers (Watson & Friend, 1969; Beck et al., 1961) of these inventories, the subjects of this sample are virtually

rather "normal". The effects of social skills training on the treatment for depressive population (Hammen et al., 1988; Hersen et al., 1980; La Pointe & Rimm, 1980; Lewinsohn et al., 1976; 1984; Segrin, 1990), and for social anxious population (Frich, 1988; Haynes-Clenents & Avery, 1984) have been supported. However, it seems that the same results may not be applicable to normal population. It is possible that even though subjects experienced significant reduction in depression or anxiety as a result of social skills training, their initial level of depression and anxiety may have been too low to affect their performance on the tests consistently.

The results of this study are consistent with Frich et al.'s (1982) suggestion that social skills training did not have an significant impact on self-report of social anxiety. It is possible that the skills training, however, enhances subjects' social performance, whereas, it does not affect comfort in social situations (Fingeret & Monti, 1983). For normal population, the skill deficit model of social anxiety may not be very appropriate in explanation of the source of social anxiety. It is possible that some third variable, such as anxiety inhibition suggested by Royce and Arkowitz (1978), determines the level of social anxiety for normal college population.

Final Conclusion

Although experimental and control groups did not have a significant difference on BDI and SAD at posttest and follow-up test, however, in evaluating the data, it was noted that the control group showed higher gains than the experimental group on all the measures from posttest to follow-up (see Figure 1, 2, 3, and 4). Taken in their totality, the results also indicate that there was a clear trend for the experimental group to become less depressed during the course of treatment (see Figure 3). Therefore, it is evidenced that social skills training do have a positive impact on prevention of subjects' perceived stress, depression, and social anxiety, although the differences for the later two variables are not significant.

Recommendation

The current study demonstrated that social skills training was effective in preventing perceived stress for Taiwanese graduate students. Lengthening group sessions may enhance treatment effects even further. Although there was no evidence for the effectiveness of either altering individuals' immediate stress, depression, and social anxiety, or preventing future perceived depression and social anxiety, the outcome of training were all in expected direction. In the future, the pre-departure training program provided by Taiwanese Ministry of

Education for their students should include social skills training. In addition, American colleges and universities should also consider developing orientation programs for foreign students in which social skills training should be integrated.

In the present study, the researcher led the training group and served as the basis for research and study of group members. Although through the behavior of a live model, self-disclosure, risk taking, openness, honesty, and compassion, can be best taught (Layon & Goodstein, 1982), in a future study, however, it might be appropriate to include symbolic models into the training program to enrich the training content. In addition, in order to improve the internal validity of such experiment, it would be wise to train naive trainer to work with students participating in the experimental group.

According to Vredenburg et al. (1988), college-student depression is not solely related to either depressive personality or the experience of events unique to college life but rather that both are implicated to a significant degree. Similiar suggestions are also found in social anxiety study (Ingram, 1989; Dow et al., 1985; Haemmerlie et al., 1988). Future studies should include some personality variables to examine how they interact with social skills, or/and effect the subsequent depression and social anxiety.

Further work is clearly needed to determine whether this study's findings, of Taiwanese graduate students, can be generalized to other foreign student samples. Another possible study might be to analyze this study's results, specific to stress, depression, and social anxiety, as they are opposed to other psychological function.

Finally, research needs to be directed toward the development and evaluation of new intervention strategies for foreign students.

APPENDIX A

SOCIAL SKILLS QUESTIONNAIRE

Name: _____

Date: _____

Please circle three social skills which you consider to be most useful for you at the time when you were a newcomer from the following list.

- | | |
|--|---|
| 1. Listening | 26. Using Self-control |
| 2. Starting a Conversation | 27. Standing Up for Your Rights |
| 3. Having a Conversation | 28. Responding to Teasing |
| 4. Asking a Question | 29. Avoiding Trouble with Others |
| 5. Saying Thank You | 30. Keeping Out of Fights |
| 6. Introducing Yourself | 31. Making a Complaint |
| 7. Introducing Other People | 32. Answering a Complaint |
| 8. Giving a Compliment | 33. Sportsmanship After the Game |
| 9. Asking for Help | 34. Dealing with Embarrassment |
| 10. Joining In | 35. Dealing with Being Left Out |
| 11. Giving Instruction | 36. Standing Up for a Friend |
| 12. Following Instruction | 37. Responding to Persuasion |
| 13. Apologizing | 38. Responding to Failure |
| 14. Convincing Others | 39. Dealing with Contradictory Messages |
| 15. Knowing Your Feelings | 40. Dealing with an Accusation |
| 16. Expressing Your Feelings | 41. Getting Ready for a Conversation |
| 17. Understanding the Feelings of Others | 42. Dealing with Group Pressure |
| 18. Dealing with Someone Else's Anger | 43. Deciding on Something to Do |
| 19. Expressing Affection | 44. Deciding What Caused a Problem |
| 20. Dealing with Fear | 45. Setting a Goal |
| 21. Rewarding Yourself | 46. Deciding on Your Abilities |
| 22. Asking Permission | 47. Gathering Information |
| 23. Sharing Something | 48. Arranging Problems by Importance |
| 24. Helping Others | 49. Making a Decision |
| 25. Negotiation | 50. Concentrating on a Task |

APPENDIX B

GROUP COMPOSITION AND FORMAT

Treatment Session One
"Asking for help"

Goal: PARTICIPANTS WILL GAIN THE NECESSARY SOCIAL SKILLS TO DEAL WITH EVERYDAY LIFE IN THE U. S.

Objective: Be able to ask for help in solving problems

Learning Strategy:

Steps:

- a. Explain the goal and objective of the strategy.
- b. Divide the participants into two groups to decide what the problem is.
- c. Have the participants to think about different people who might help them and pick one.
- d. Role play: Tell the person about the problem and ask that person to help you.
- e. Provide feedback and discuss what constitutes a friendly manner (e. g., tone of voice, facial expression, content)
- f. Modeling friendly behaviors and nonverbal communicators.

Suggested situations: You want help with an assignment, or you don't understand what you are supposed to do.

Treatment Session Two
"Expressing Affection"

GOAL: PARTICIPANTS WILL GAIN THE NECESSARY SOCIAL SKILLS TO DEAL WITH EVERYDAY LIFE IN THE U. S.

Objective: Be able to express affection in a friendly way.

Learning Strategy:

Steps:

- a. Explain the goal and objective of the strategy.
- b. Have participants decide if they have good feelings about the other person and discuss these feelings.
- c. Decide if the other person would like to know about their feelings. Discuss possible consequences of telling the person; for example, the person may become embarrassed, or it may make the person feel good.
- d. Have participants decide what they will say.
- e. Discuss how to choose a good time and place.
- f. Role Play: Have each participant pick a partner to take turns to express his/her affection in a friendly way.
- g. Provide feedback and discuss the body language and nonverbal communicators that show a friendly attitude.
- h. Provide modeling.

Suggested situations: Thank a professor or a friend for something he/she has done.

Treatment Session Three
"Dealing with Fear"

GOAL: PARTICIPANTS WILL GAIN THE NECESSARY SOCIAL SKILLS TO DEAL WITH EVERYDAY LIFE IN THE U. S.

Objective: Be able to recognize signs of fear and act out the best choice for dealing with fear.

Learning Strategy:

Steps:

- a. Explain the goal and objective of the strategy.
- b. Have participants decide if they are feeling afraid. Discuss bodily cues of fear (e. g., sweaty hands or nausea).
- c. Have participants think about what they might be afraid of.
- d. Figure out if the fear is realistic.
- e. Have participants think about their choices. (e. g., talking with someone, leaving the scene; or gradually approaching the fearful situation)
- f. Role play: Have each participant pick a partner and take turns to act out his/her best choice. If one choice doesn't work, the trainee should try another one.
- g. Provide feedback.
- h. Provide modeling.

Suggested situations: You are afraid of giving a formal presentation in front of class; or you are afraid to take a test.

Treatment Session Four
"Making a Complaint"

GOAL: PARTICIPANTS WILL GAIN THE NECESSARY SOCIAL SKILLS TO DEAL WITH EVERYDAY LIFE IN THE U. S.

Objective: Be able to recognize a problem and tell the person with whom the participant is having the problem in a friendly way.

Learning Strategy:

Steps:

- a. Explain the goal and objective of the strategy.
- b. Have participant decide what the problem is. Discuss how they can recognize a problem: by the way they feel inside; by what someone said to them; or by how someone acted toward them.
- c. Decide whom to complain to: Who can solve it?

- d. Discuss how to choose a good time and place.
- e. Discuss alternative ways to complain, e. g., politely, assertively, privately.
- f. Role play: Have each participant pick a partner to take turns to tell the partner his/her complaint; tell the partner what he/she would like done about the problem; offer a helpful suggestion about resolving the problem.
- g. Have participants ask their partners how they feel about what they've said.
- h. Provide feedback and instruct the participants to wait until they are no longer angry or upset before making the complaint. Discuss the body language and nonverbal communicators that show a friendly attitude.
- i. Provide modeling.

Suggested Situations: The professor gives you an assignment that seems too difficult to you; or you are working on an important report with a sloppy classmate.

Treatment Session Five
" Dealing with Being Left Out "

GOAL: PARTICIPANTS WILL GAIN THE NECESSARY SOCIAL SKILLS TO DEAL WITH EVERYDAY LIFE IN THE U. S.

Objective: Recognize there are fair chances for a foreign student to be left out by peers and be able to act out the best choice for dealing with such situation.

Learning Strategy:

Steps:

- a. Have participants decide if they are being left out.
- b. Have participants think about why the other people might be leaving out them of something.
- c. Decide how they could deal with the problem. Discuss possible choices: they might wait, leave, tell the other people how their behavior affect the trainees, or ask to be included.
- d. Role play: Have each participant pick a partner to take turns to act out his/her best choice. If one choice doesn't work, the trainee should try another one.
- e. Provide feedback. Discuss the types of feelings that might result from being left out (feeling angry, hurt, or frustrated). The trainer will emphasize that it is important to deal with being left out through these skill steps, rather than to continue to feel angry or hurt.
- f. Provide modeling.

Suggested situations: You are left out of a group discussion; or a group of friends are going to a movie or a party, but you are not invited.

Treatment Session Six
" Dealing with Embarrassment "

GOAL: PARTICIPANT WILL GAIN THE NECESSARY SOCIAL SKILLS TO DEAL WITH EVERYDAY LIFE IN THE U. S.

Objective: Be able to recognize signs of embarrassment and act out the best choice for dealing with embarrassment.

Learning Strategy:

Steps:

- a. Have participants decide what happen to cause them to feel embarrassed. Discuss how they can recognize signs of embarrassment (e. g., face feels flushed).
- b. Have participants think of what they can do to feel less embarrassed. Discuss possible choices: They might ignore it, decide what to do next time; or say to themselves "It's over. People will forget it."
- c. Role play: Have each participant pick a partner to take turns to act out his/her best choice. If one choice doesn't work, the trainee should try another one.
- d. Provide feedback.
- e. Provide modeling.

Suggested Situations: You can't answer a question, or give the wrong answer in class; You can't read the menu in a restaurant.

APPEENDIX C

CONSENT FORM

Subject Consent Form

The purpose of this form is to request your help by volunteering to participate in a study to be conducted by Li-An Kuo

Purpose of the Research

The purpose of this study is to determine the effects of social skills training on the prevention of stress, depression, and social anxiety of Taiwanese graduates students in the U. S.

Amount of Time Involved for Subjects

As a subject that has been randomly assigned to the experimental group, you will be asked to complete six, ninety-minute group sessions which will extend over two weeks. Subjects in the control group will receive no treatment. All subjects will be asked to complete four brief forms prior to, and upon completion the experiment. The same forms will be mailed to you after your arrival in the U. S. You will be asked to complete them and mail them back to the experimenter.

Description of Treatments

Subjects in the experimental group will be taught a particular set of verbal and nonverbal skills associated with each of six social response classes: asking for help; expressing affection; dealing with fear; making a complaint; dealing with being left out; and dealing with embarrassment. Subjects in the control group will not receive any treatment.

Benefits for the Participation

There will be no risks to your health or well being associated with your participation, In fact, there is a possible benefit to be gained from your participation. you will gain the knowledge about yourself on the personality dimensions measured by the paper and pencil tests. As a subject in the experimental group, your social competence is expected to be increased after your participation.

Assurance of Confidentiality

All group discussions, videotapes, and collected data of this study will be kept strictly confidential. Only the researcher will have access to data collected on individual volunteers. For purpose of analysis, group data, and only group data, will be used and reported in the final research report.

Assurance of Voluntary Participation

Participation in this study is voluntary. All subjects have the right to withdraw in part or in whole at any time without penalty.

Availability of Results

A written summary of the results of this study and suggestions about stress coping will be mailed to you after completion of this study.

If you have any questions, you are expected to ask the experimenter, Li-An Kuo. If you have questions later, either Li-An Kuo, phone (04)2520974 (Taiwan), or Dr. Kevin Geoffroy, Phone (804) 2534453, will be happy to answer them.

Informed Voluntary Consent to Participate

I have been fully informed and hereby consent to participate in the study outlined above. My right to decline participate or to withdraw in whole or part at any time has been guaranteed

Subject's Signature

Date

Researcher's signature

Date

REFERENCES

- Adelegan, F. O., & Parks, D. J. (1985). Problems of transition for African students in an American university. Journal of College Student Personnel, 26, 504-508.
- Alberti, R. E. (1977). Comments on "Differentiating assertion and aggression: Some behavioral guidelines". Behavior Therapy, 8, 353-354.
- Alexander, A. A., Workneh, F., Klein, M. H., & Miller, M. H. (1981). Psychotherapy and the foreign student. In P. Pedersen, W. J. Lonner, & J. G. Draguns (Eds.), Counseling across cultures (pp. 227-243). Honolulu: University of Hawaii Press.
- Anderson, R. A. (1978). Stress power: How to turn tension into energy. New York: Human Sciences Press.
- Arkowitz, H., Lichtenstein, E., McGovern, K., & Hines, P. (1975). The behavioral assessment of social competence in males. Behavior Therapy, 6, 3-13.
- Bandura, A. (1969). Principles of behavior modification. New York: Holt, Rinehart and Winston.
- Bandura, A. (1971). Social learning theory. New York: General Learning Press.
- Bandura, A. (1974). Behavior theory and the models of man. American Psychologist, 29, 859-869.
- Bandura, A. (1977). Social learning theory. In B. B. Wolman (Ed.), International encyclopedia of psychiatry.

- psychology, psychoanalysis and neurology, vol. 10. New York: Aesculapius.
- Barber, E. G., & Morgan, R. P. (1988). Boon or bane: Foreign graduate students in U. S. engineering programs (Research Rep. series No. 15). New York: Institute of International Education.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. 19(61). An inventory for measuring depression. Archives of General Psychiatry, 4, 53-63.
- Beck, A. T., & Young, J. E. (1978, September). College Blues. Psychology Today, pp. 83-92.
- Bellack, A. S., & Hersen, M. (Eds.) (1979). Research and practice in social skills. New York: Plenum.
- Benson, H. (1975). The relaxation response. New York: William Morrow.
- Benton, M. K., & Schroeder, H. E. (1990). Social skills training with schizophrenics: A meta-analytic evaluation. Journal of Consulting and Clinical Psychology, 58, 741-747.
- Birchler, G. R. (1979). Communication skills in married couples. In A. S. Bellack and M. Hersen (Eds.), Research and practice in social skills training (pp. 273-375). New York: Plenum.
- Bleeker, D. J. (1980). Structured learning therapy with skill-deficient adolescents. Unpublished masters thesis, Syracuse University.

- Borg, W. R., & Gall, M. D. (1989). Educational research (5th ed.). New York: Longman.
- Bornstein, M. R., Bellack, A. S., & Hersen, M. (1977). Social skills training for unassertive children. Journal of Applied Behavior Analysis, 10, 183-195.
- Brislin, R. (1981). Cross-cultural encounters. New York: Pergamon.
- Brown, S. D., Brady, T., Lent, R. W., Wolefert, J., & Hall, S. (1987). Perceived social support among college students: Three studies of the psychometric characteristics and counseling uses of the Social Support Inventory [Monograph]. Journal of Counseling Psychology, 34, 337-354.
- Bumberry, W., Oliver, J. M., & McClure, J. (1978). Validation of the Beck Depression Inventory in a university population using psychiatric estimate as a criterion. Journal of Consulting and Clinical Psychology, 46, 150-155.
- Cacioppo, J. T., Glass, C. R., & Merluzzi, T. V. (1979). Self-statements and selfevaluations: A cognitive response analysis of heterosocial anxiety. Cognitive Therapy and Research, 3, 249, 262.
- Chen, I. (1992). Handbook for overseas study. Taiwan: Learning.
- Cohen, S. (1986). Contrasting the Hassles Scale and the Perceived Stress Scale: Who's really measuring appraised stress? American Psychologist, 41, 716-718.

- Cohen, S., Kamarck, T., & Mermeistein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.
- Cohen, S., Sherrod, D., & Clark, M. (1986). Social skills and the stress-protective role of social support. Journal of Personality and Social Psychology, 50, 963-973.
- Cohen, S., & Syme, S. L. (1985). Issues in the study and application of social support. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 3-22). CA: Academic Press.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.
- Cole, D. A., Lazarick, D. L., & Howard, G. S. (1987). Construct validity and the relation between depression and social skill. Journal of Counseling Psychology, 34, 315-321.
- Collins, P. L. (1977). Self-perceived problems of international students attending Howard University. Dissertation Abstracts International, 37, 4859A.
- Coyne, J. C., & Lazarus, R. S. (1980). Cognitive style, stress perception, and coping. In I. L. Kutash, L. B. Schlesinger, & Associates (Eds.), Handbook on stress and anxiety. San Francisco: Jossey-Bass.

- Daly, S. (1978). Behavioural correlates of social anxiety. British Journal of Social and Clinical Psychology, 17, 117-120.
- Decker, T. W., Williams, J. M., & Hall, D. (1982). Preventive training in management of stress for reduction of physiological symptoms through increases cognitive and behavioral controls. Psychological Reports, 50, 1327-1334.
- Dobson, K. S., & Breiter, H. J. (1983). Cognitive assessment of depression: Reliability and validity of three measures. Journal of Abnormal Psychology, 92, 107-109.
- Dow, M. G., Biglan, A., & Glaser, S. (1985). Multimethod assessment of socially anxious and nonanxious women. Behavioral Assessment, 7, 273-282.
- Dykman, B. M., Horowitz, L. M., Abramson, L. Y., & Usher, M. (1991). Schematic and situational determinants of depressed and nondepressed students' interpretation of feedback. Journal of Abnormal Psychology, 100, 45-55.
- Elliott, T., & Gramling, S. E. (1990). Personal assertiveness and the effects of social support among college students. Journal of Counseling Psychology, 37, 427-436.
- Fingeret, A. L., & Monti, P. M. (1983). Relationships among social perception, social skill, and social anxiety of psychiatric patients. Psychological Reports, 53, 1175-1178.

- Fleming, D. (1976). Teaching negotiation skills to pre-adolescents. Unpublished doctoral dissertation, Syracuse University.
- Freedman, B., Fosenthal, L., Danahoe, C., & McFall, R. (1978). A social behavioural analysis of skills deficits in delinquent and non-delinquent adolescent boys. Journal of Consulting and Clinical Psychology, 46, 1148-1163.
- Freidman, M., & Rosenman R. H. (1974). Type A behavior and your heart. New York: Knopf.
- Frisch, M. B. (1988). Role-play training as a tool in social skills assessment. Perceptual and Motor Skills, 67, 483-490.
- Frisch, M. B., Elliott, C. H., Atsides, J. P., Salva, D. M., & Denny, D. R. (1982). Social skills and stress management training to enhance patients' interpersonal competencies. Psychotherapy: Theory, Research, and Practice, 19, 349-358.
- Furnham, A., & Bochner, S. (1982). Social difficulty in a foreign culture: An empirical analysis of culture shock. In S. Bochner (Ed.), Cultures in contact: Studies in cross-cultural interaction (pp. 161-198). Oxford: Pergamon Press.
- Glasgow, R. E., Klesges, R. C., Mizes, J. S., & Pechacek, T. F. (1985). Quitting smoking: Strategies used and variables associated with success in a stop-smoking contest. Journal of Consulting and Clinical Psychology, 53, 905-912.

- Golden, R. (1975). Teaching resistance-reducing behavior to high school students. Unpublished doctoral dissertation, Syracuse University.
- Goldsmith, J. B., & McFall, R. M. (1975). Development and evaluation of an interpersonal skill-training program for psychiatric inpatients. Journal of Abnormal Psychology, 84, 51- 58.
- Goldstein, A. P., Gershaw, N. J., & Sprafkin, R. P. (1985). Structured learning: Research and practice in psychological skill training. In L. L'Abate, & M. A. Milan (Eds.), Handbook of social skill training and research (pp. 284-302). New York: John Wiley & Sons.
- Goldstein, A. P., Sprafkin, R. P., Gershaw, N. J., & Klein, P. (1980). Skillstreaming the adolescent: A structured learning approach to teaching prosocial skills. Champaign, IL: Research Press.
- Goldstein, A. P., Sprafkin, R. P., Gershaw, N. J., & Klein, P. (1986). The adolescent: Social skills training through structured learning. In G. Cartledge & J. F. Milburn (Eds.), Teaching social skills to children (2nd ed.). New York: Pergamon Press.
- Goplerud, E. N. (1977). Thoughts on a model program for assessing and promoting competence. Unpublished manuscript, State Buffalo.
- Gough, H. (1987). The California Psychological Inventory administrator's guide. Palo Alto, CA: Consulting Psychologist Press.

- Greenwald, D. P. (1977). The behavioral assessment of differences in social skill and social anxiety in female college students. Behavior Therapy, 8, 925-937.
- Guglielmino, L., & Perkins, C. (1975). Problems of international students attending the University of Georgia. Unpublished manuscript, University of Georgia, Office of International Student Affairs, Athens.
- Gutride, M. E., Goldstein, A. P. & Hunter, G. F. (1973). The use of modeling and role-playing to increase social interaction among asocial psychiatric patients. Journal of Consulting and Clinical Psychology, 40, 408-15.
- Gutride, M. E., Goldstein, A. P. & Hunter, G. R. (1974). The use of structured learning therapy and transfer training in the treatment of chronic psychiatric patients. Journal of Clinical Psychology, 30, 277-80.
- Haemmerlie, F. M., Montgomery, R. L., & Melchers, J. (1988). Social support, perceptions of attractiveness, weight, and the CPI in socially anxious males and females. Journal of Clinical Psychology, 44, 435-440.
- Hagey, A. K., & Hagey, J. (1972). The international student and the junior college: Academic and social needs. Journal of College Student Personnel, 13, 140-144.
- Halford, K. (1977). Social anxiety and overt behaviour. Paper presented at the APA Annual Conference, Melbourne.
- Halford, K., & Hayes, R. (1991). Psychological rehabilitation of chronic schizophrenic patients: Recent

- findings on social skills training and family psychoeducation. Clinical Psychology Review, 11, 23-44.
- Hammen, C. L. (1980). Depression in college students: Beyond the Beck Depression Inventory. Journal of Consulting and Clinical Psychology, 48, 126-128.
- Hammen, C. L., Jacobs, M., Mayol, A., & Cochran, S. D. (1980). Dysfunctional cognitions and the effectiveness of skills and cognitive-behavioral assertion training. Journal of Consulting and Clinical Psychology, 48, 685-695.
- Hatzenbuehler, L. C., Parpal, M., & Matthews, L. (1983). Classifying college students as depressed and nondepressed using the Beck Depression Inventory: An empirical analysis. Journal of Consulting and Clinical Psychology, 48, 685-695.
- Haynes-Clements, L. A., & Avery, A. W. (1984). A cognitive-behavioral approach to social skills training with shy persons. Journal of Clinical Psychology, 40, 710-713.
- Heller, K. (1979). The effects of social support: Prevention and treatment implications. In A. P. Goldstein & F. H. Kanfer (Eds.), maximizing treatment gains: Transfer enhancement in psychotherapy (pp. 353-382). New York: Academic Press.
- Heller, K., & Swindle, R. W. (1983). Social networks, perceived social support, and coping with stress. In R. D. Felner, L. A. Jason, J. N. Moritsugu, & S. S. Farber

- (Eds.), Preventive psychology: Theory, research, and practice. (pp. 87-103). New York: Pergamon Press.
- Hersen, M., & Bellack, A. S. (1976). Social skills training for chronic psychiatric patients: Rationale, research finding, and future directions. Comprehensive Psychiatry, 17, 559-580.
- Hersen, M., Bellack, A. S., & Himmelhoch, J. M. (1980). Treatment of unipolar depression with social skills training. Behavior Modification, 4, 547-556.
- Hersen, M., Eisler, R. M., Miller, P. M., Johnson, M. B. & Pinkston, S. G. (1973). Effects of practice, instructions, and modeling on components of assertive behavior. Behaviour Research and Therapy, 11, 443-451.
- Hollin, C., & Henderson, M. (1981). The effects of social skills training on incarcerated delinquent adolescents. International Journal of Behavioural Social Work, 1, 145-156.
- Hsu, L. R., Hailey, B. J., & Range, L. M. (1987). Cultural and emotional components of loneliness and depression. The Journal of Psychology, 121(1), 61-70.
- Hutton, V. V. (1990). Test review: The California Psychological Inventory. Journal of Counseling and Development, 69, 75-77.
- Ingram, R. E. (1989). Unique and shared cognitive factors in social anxiety and depression: Automatic thinking and self-appraisal. Journal of Social and Clinical Psychology, 8(2), 198-208.

- Institute of International Education. (1989). Open doors: 1987/1988 - Report on international exchange. New York: Author.
- Institute of International Education. (1991). Open doors: 1989/1990 - Report on international exchange. New York: Author.
- Jones, W. H., Briggs, S. R., & Smith, T. G. (1986). Shyness: Conceptualization and measurement. Journal of Personality and Social Psychology, 51, 629-639.
- Kazdin, A. E. (1974). Effects of covert modeling and model reinforcement on assertative behavior. Journal of Abnormal Psychology, 83, 240-252.
- Kelly, J. A. (1982). Social-skills training: A practical guide for interventions. New York: Springer.
- Klein, M. H. (1971). The foreign student adaptation program: Social experiences of Asian students in the U. S. International Educational and Cultural Exchange, 6, 77-90.
- Klineberg, O., & Hull, W. F. (1979). At a foreign university: An international study of adaption and coping. New York: Pareger.
- Ladd, G. W. (1981). Effectiveness of a social learning method for enhancing children's social interaction and peer acceptance. Child Development, 52, 171-178.
- Ladd, G. W., & Mize, J. (1983). A cognitive-social learning model of social skill training. Psychological Review, 90, 127-157.

- Landy, F. J., & Gaupp, L. A. (1971). A factor analysis of the Fear Survey Schedule-111. Behavior Research and Therapy, 9, 89-94.
- LaPointe, K. A., & Rimm, D. C. (1980). Cognitive, assertive, and insight-oriented group therapies in the treatment of reactive depression in women. Psychotherapy: Theory, Research and Practice, 17, 312-321.
- Layon, R. I., & Goodstein, L. D. (1982). Personality assessment (2nd ed.). New York: John Wiley & Sons.
- Lazarus, R. S. (1966). Psychological stress and the coping process. New York: McGraw-Hill.
- Lazarus, R. S., & Cohen, J. B. (1977). Environmental stress. In I. Altman & J. F. Wohlwill (Eds.), Human behavior and environment (Vol. 1). New York: Plenum.
- Lazarus, R. S., DeLongis, A., Folkman, S., & Gruen, R. (1985). Stress and adaptational outcomes: The problem of confounded measures. American Psychologist, 40, 770-779.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.
- Leavy, R. L. (1983). Social support and psychological disorder: A review. Journal of Community Psychology, 11, 3-21.
- Lee, M. Y., Abd-Ella, M., & Burke, L. (1981). Needs of foreign students from developing nations at U. S. colleges and universities. DC: National Association of Foreign Student Affairs.

- Lefcourt, H. M., Martin, R. A., & Saleh, W. E. (1984). Locus of control and social support: Interactive moderators of stress. Journal of Personality and Social Psychology, 47, 378-389.
- Lepore, S. J., Evans, G. W., & Schneider, M. L. (1991). Dynamic role of social support in the link between chronic stress and psychological distress. Journal of Personality and Social Psychology, 61, 899-909.
- Lewinsohn, P. M., Antonuccio, D. O., Steinmetz, J. L., & Teri, L. (1984). The coping with depression course: A psychoeducational intervention for unipolar depression. Eugene, OR: Castalia.
- Lewinsohn, P. M., Golding, S. L., Johansson, S. L., & Stewart, R. (1968). Patterns of communication in depressed and nondepressed subjects. Unpublished manuscript, University of Oregon.
- Lewinsohn, P. M., Mischel, W., Chaplin, W., & Barton, R. (1980). Social competence and depression: The role of illusory self-perceptions. Journal of Abnormal Psychology, 89, 203-212.
- Mallinckrodt, B., & Leong, F. T. (1992). International graduate students, stress, and social support. Journal of College Student Development, 33, 71-78.
- Manansala, E. M. (1977). Differences in style of coping with stress among male and female international students at an urban university. Dissertation Abstracts International, 37, 4867A.

- Marion, P. B. (1986). Research on foreign students in colleges and universities in the United States. In K. R. Pyle (Ed.), Guiding the development of foreign students (pp. 65-82). San Francisco: Jossey-Bass.
- Martinson, W. D., & Zerface, J. P. (1970). Comparison of individual counseling and a social program with non-daters. Journal of Counseling Psychology, 17, 36-40.
- Marzillier, J. S., Lambert, C. & Kellet, J. (1976). A controlled evaluation of systematic desensitization and social skills training for socially inadequate psychiatric patients. Behavior Research and Therapy, 14, 225-238.
- Marzillier, J. S., Winter, K. (1978). Success and failure in social skills training: Individual differences. Behaviour Research and Therapy, 16, 67-84.
- Matheny, K. B., Ancock, D. W., Pugh, J. L., Curlette, W. L., & Cannella, A. S. (1986). Stress coping: A qualitative and quantitative synthesis with implications for treatment. The Counseling Psychologist, 14, 499-549.
- Mau, W. C., & Jepsen, D. A. (1988). Attitudes toward counselors and counseling processes: A comparison of Chinese and American Graduate students. Journal of Counseling and Development, 67, 189-192.
- McFall, R. M. (1976). Behavioral training: A skill-acquisition approach to clinical problems. In J. L. Spencer, R. C. Carson & J. W. Thibaut (Eds.), Behavioral approaches to therapy. N. J.: General Learning Press.

- McFall, R. M., & Twentyman, C. T. (1973). Four experiments on the relative contribution of rehearsal, modeling, and coaching to assertion training. Journal of Abnormal Psychology, 81, 199-218.
- McGinnis, E., Goldstein, A. P., Sprafkin, R. P., & Gershaw, N. J. (1984). Skillstreaming the elementary school child. Illinois: Research Press Company.
- Merton, R. K. (1957). Social Structure. Glencoe, IL: Free Press.
- Mize, J., & Ladd, G. W. (1990). A cognitive-social learning approach to social skill training with low-status preschool children. Developmental Psychology, 26, 388-397.
- Mohammadreza, H. (1982). Loneliness as a function of selected personality variables. Journal of Clinical Psychology, 38, 131-147.
- Monroe, S. M., & Steiner, S. C. (1986). Social support and psychopathology: Interrelationships with preexisting disorder, stress, and personality. Journal of Abnormal Psychology, 95, 29-39.
- Monti, P. M., Abrams, D. B., Binkoff, J. A., Zwick, W. R., Liepman, M. R., Nirenberg, T. D., & Rohsenow, D. J. (1990). Communication skills training, communication skills training with family and cognitive behavioral mood management training for alcoholics. Journal of Studies on Alcohol, 51, 263-270.

- Monti, P. M., Curran, J. P., Corriveau, D. P., DeLancy, A. L., & Hagerman, S. M. (1980). Effects of social skills training groups and sensitivity training groups with psychiatric patients. Journal of Consulting and Clinical Psychology, 48, 241-248.
- Mooney, C. J. (1990). Universities awarded record number of doctorates last year: Foreign students thought to account for much of the increase. Chronicle of Higher Education, 36, 1ff.
- Oei, T. P. S., Jackson, P. R. (1980). Long-term effects of group and individual social skills training with alcoholics. Addictive Behavior, 5, 129-136.
- Ollendick, T. M., & Hersen, M. (1979). Social skills training for juvenile delinquents. Behavior Research and Therapy, 17, 547-554.
- Parr, G., Bradley, L., & Bingi, R. (1992). Concerns and feelings of international students. Journal of College Student Development, 33, 20-25.
- Pearlin, L., & Liberman, M. A. (1979). Social sources of emotional distress. In R. Simmons (Ed.), Research in community and mental health: Vol. 1 (pp. 217-248). Greenwich, CT: JAI Press.
- Pedersen, P. (1980). Role learning as a coping strategy for uprooted foreign students. In G. V. Coelho & P. I. Ahmed (Eds.), Uprooting and development (pp. 295-320). New York: Plenum.

- Pedersen, P. (1991). Counseling international students. The Counseling Psychologist, 19, 10-58.
- Pedersen, P., Lonner, W. J., & Dragus, J. G. (Eds.). (1976). Counseling across cultures. Honolulu: University Press of Hawaii.
- Pendleton, D. & Furnham, A. (1980). Skills: a paradigm for applied social psychological research. In W. Singleton, P. Spurgeon & R. Stammers (Eds.), Analysis of social skills. New York: Plenum.
- Phillips, E. L. (1985). Social skills: History and Prospect. In L. L'Abate & M. A. Milan (Eds.), Handbook of social skill training and research (pp. 3-21). New York: John Wiley & Sons.
- Raleigh, R. (1977). Individual vs. group-structured learning therapy for assertiveness training with senior and junior high school students. Unpublished doctoral dissertation, Syracuse University.
- Reiff, R. (1972). University of Georgia students from outside the United States. Unpublished manuscript, University of Georgia, Office of International Student Affairs, Athens.
- Rosenthal, R., & Rosnow, R. L. (1975). The volunteer subject. New York: Wiley.
- Royce, W. S. & Arkowitz, H. (1978). Multimodal evaluation of practice interactions as treatment for social isolation. Journal of Consulting and Clinical Psychology, 46, 239-245.

- Salter, A. (1949). Conditioned reflex therapy. New York: Creative Age.
- Sarason, I. G., & Ganzer, V. J. (1969). Social influence techniques in clinical and community psychology. In C. D. Spieberger (Ed.), Current topics in clinical and community psychology (Vol. 1). New York: Academic Press.
- Sarason, B. R., Pierce, G. R., & Sarason, I. G. (1990). Social support: The sense of acceptance and the role of relationships. In B. R. Sarason, & G. R. Pierce (Eds.), Social support: An interactional view (pp. 95-128). New York: Wiley.
- Segrin, C. (1990). A meta-analytic review of social skill deficits in depression. Communication Monographs, 57, 292-308.
- Selye, H. (1956). The stress of life. New York: McGraw-Hill.
- Selye, H. (1974). Stress without distress. Philadelphia: Lippincott.
- Sharma, S. (1973). A study to identify and analyze adjustment problems experienced by foreign non-European graduate students enrolled in selected universities in the state of North Carolina. California Journal of Educational Research, 24, 135-146.
- Shaver, P., Furman, W., & Buhrmester, D. (1985). Transition to college: Network changes, social skills, and loneliness. In S. Duck & D. Periman (Eds.), Understanding

- personal relationships: An interdisciplinary approach (pp. 193-219). London: Sage.
- Singh, A. K. (1963). Indian students in Britain. Bombay: Asia Publishing House.
- Sue, D. W., & Kirt, B. A. (1975). Asian-Americans: Use of counseling and psychiatric services on a college campus. Journal of Counseling Psychology, 22, 84-86.
- Sue, S., & Morishima, J. K. (1982). The mental health of Asian Americans. San Francisco: Jossey-Bass.
- Sue, S., & Zane, N. W. (1985). Academic achievement and socioemotional adjustment among Chinese university students. Journal of Counseling Psychology, 32, 570-579.
- Swanstrom, C. R. (1978). An examination of Structured Learning Therapy and the helper therapy principle in teaching a self-control strategy to school children with conduct problems. Unpublished doctoral dissertation, Syracuse University.
- Thiessen, J., Avery, A., & Joanning, H. (1981). Facilitating postdivorce adjustment among women: A communication skills training approach. Journal of Divorce, 4, 35-44.
- Tolman, R. M., & Rose, S. D. (1990). Teaching clients to cope with stress: The effectiveness of structured group stress management training. Journal of Social Service Research, 13(2), 45-66.
- Torrance, E. P. (1965). Constructive behavior: Stress, personality, and mental health. CA: Wadsworth publishing.

- Trief, P. (1976). The reduction of egocentrism in acting-out adolescents by structured learning therapy. Unpublished doctoral dissertation, Syracuse University.
- Trower, P., Bryant, B., & Argyle, M. (1978). Social skills and mental health. London: Methuen.
- Trower, P., Yardley, K., Bryant, B. M., & Shaw, P. (1978). The treatment of social failure: A comparison of anxiety-reduction and skills-acquisition procedures on two social problems. Behavior Modification, 2(1), 41-60.
- Turner, S. M., Mccanna, M. & Beidel, D. C. (1987). Validity of the Social Avoidance and Distress and Fear of Negative Evaluation Scales. Behavior Research and Therapy, 25(2), 113-115.
- Twentyman, C. T., & McFall, R. M. (1975). Behavioral training of social skills in shy males. Journal of Consulting and Clinical Psychology, 43, 384-395.
- Twentyman, C. T., & Zimering, R. T. (1979). Behavioral training of social skills: A critical review. In M. Hersen, R. M. Eisler, & P. M. Miller (Eds.), Progress in behavior modification, Vol. 7 (pp. 319-400). New York: Academic.
- Vredenburg, K., Krames, L., & Flett, G. L. (1985). Reexamining the Beck Depression Inventory: The long and short of it. Psychological Report, 56, 767-778.
- Vredenburg, K., O'brien, E., & Krames L. (1988). Depression in college students: Personality and experiential factors. Journal of Counseling Psychology, 35, 419-425.

- Watson, D. & Friend, R. (1969). Measurement of social-evaluative anxiety. Journal of Consulting and Clinical Psychology, 33, 448-457.
- Wehrly, B. (1988). Cultural diversity from an international perspective: Part two. Journal of Multicultural Counseling and Development, 16, 3-15.
- Weinman, B., Gelbart, P., Wallace, M., & Post, M. (1972). Inducing assertive behavior in chronic schizophrenics: A Comparison of socio-environmental, desensitization and relaxation therapies. Journal of Consulting and Clinical Psychology, 39, 246-252.
- Wethington, E., & Kessler, R. C. (1986). Perceived support, received support, and adjustment to stressful life events. Journal of Health and Social Behavior, 27, 78-89.
- Wierzbicki, M. (1984). Social skills deficits and subsequent depressed mood in students. Personality and Social Psychology Bulletin, 10, 605-610.
- Williams, J. M., Decker, T. W., & Libassi, A. (1983). The impact of stress management training on the academic performance of low-achieving college students. Journal of College Student Personnel, Nov., 1983.
- Witmer, J. M., Rich, C., Barcikowski, R. S., & Mague, J. (1983). Psychosocial characteristics mediating the stress response: An exploratory study. The Personnel and Guidance Journal, 62(2), 73-77.
- Wolpe, J. (1973). The practice of behavior therapy (2nd ed.). New York: Pergamon Press.

- Wood, M. (1977). Adolescent acquisition and transfer of assertiveness through the use of structured learning therapy. Unpublished dissertation, Syracuse University.
- Wright, J. C. (1976). A comparison of systematic desensitization and social skill acquisition in the modification of a social fear. Behavior Therapy, 7, 205-210.
- Wrubel, J., Benner, P., & Lazarus, R. S. (1981). Social competence from the perspective of stress and coping. In J. D. Wine, & M. D. Smye (Eds.), Social competence (pp.61-99). New York: The Guilford Press.
- Yeh, E. K., Miller, M. H., Alexander, A. A., Klein, M. H., Tseng, K. H., Workneh, F., & Chu, H. M. (1973). The American student in Taiwan. International Studies Quarterly, 17, 359-372.
- Ying, Y., & Liese, L. H. (1990). Initial adaption of Taiwan foreign students to the United States: The impact of prearrival variables. American Journal of Community Psychology, 18, 825-845.

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