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Cognitive Distortions and Loneliness: Does Changing Negative Thoughts Affect Loneliness?

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Cognitive Distortions and Loneliness:

Does Changing Negative Thoughts Affect Loneliness?

by

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VITA

The author, James Anthony Keyes, is the son of James B.
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married Wende Anderson and the couple moved to Denver,
Colorado where they currently reside.

TABLE OF CONTENTS

LIST OF TABLES

Chapter 1

INTRODUCTION

Millions of Americans suffer from loneliness each day.
One national survey found that nearly 26 percent of
Americans had recently felt lonely (Weiss, 1973).
Loneliness is a frequent complaint of relatively well
adjusted people, as well as a common symptom of those who
seek psychological assistance. Loneliness is described by
clients as an unpleasant feeling of distress, one that is
pervasive and troublesome. It often accompanies other
serious problems such as anxiety, depression, alcoholism and
suicide (Peplau & Perlman, 1982). If a more complete and
effective understanding and treatment can be developed for
the phenomenon of loneliness, it could have an impact on the
prevalence and significance of its related problems.

Given that loneliness is such a universal experience,
one might expect that it would be fairly well researched and
understood. However, research on loneliness before 1960 was
almost exclusively limited to clinical observations. During
the last 30 years, there has been only moderate increase in
the literature base. An important milestone was the
publication of a book on the topic by Weiss (1973) which

stimulated much interest and research. In 1978, the UCLA Loneliness Scale was published offering one of the first reliable assessment tools to researchers (Russell, Peplau, & Ferguson, 1978). In the last few years, there have been a large number of articles published describing the experience of loneliness, characteristics and attributes of lonely people, and descriptions of the behavior and experience of loneliness itself (see Peplau & Perlman, 1982). Yet, as recently as 1982, Young (1982) stated, "There have been no published systematic approaches to the treatment of loneliness" (p. 379). In fact, very few treatment models have been tested for their effectiveness in alleviating loneliness. Although previous research has emphasized careful description and measurement, Perlman and Peplau (1982) emphasize the need for evaluating the effectiveness of various treatments. They state, "At present, we know very little about how best to help those suffering from severe and persistent loneliness" (p. 40).

Many different definitions of loneliness have been offered in our attempts to understand this experience. Perhaps most accepted is that of Perlman and Peplau (1982) who state that "loneliness is the unpleasant experience that occurs when a person's network of social relationships is significantly deficient in either quality or quantity" (p. 15). This definition allows for actual deficiencies in a person's current social relationships. However, it also

indicates that the perceived quality of one's relationships is a subjective experience, one which is mediated by a person's cognitive perception and evaluation of the experience. Cognitive theorists (Ellis & Greiger, 1977) have long believed that dysfunctional cognitions are the cause of many behavioral problems. They also believe that it is necessary to change self-defeating cognitions before significant behavior change can occur. For example, in the cognitive treatment procedures developed by Meichenbaum (1977), many have been reported effective in reducing maladaptive cognitions accompanying such diverse problems as stress, anger, and chronic pain.

In the specific area of loneliness as well, researchers have begun to focus on the ways that lonely individuals understand themselves and their world. These perceptions often involve negative, dysfunctional attitudes that engender maladaptive social behavior and emotional distress (Beck, Rush, Shaw & Emery, 1979). Because loneliness is such a severe problem in our society, its treatment on an individual basis may not be sufficient to deal with the problem. A number of outcome studies (discussed below) have examined group treatment procedures that have addressed these problems. Generally, there has been some change in perceived loneliness or in dysfunctional cognitions, but rarely have both occurred together.

The purpose of the present study is first to add to our understanding of the phenomenon of loneliness in general. We all desire to understand ourselves and construct meaningful accounts of our experiences. But, with reports of the surprising prevalence of loneliness, and its unpleasant, often aversive effects, this topic is especially relevant. Second, this study focuses on the college student population. Recent reports have indicated that as many as three-quarters of college students experience some degree of loneliness, an incidence much higher than the general population. Finally, this study attempts to understand the effects of a structured cognitive group procedure, which teaches the process of evaluating and changing dysfunctional cognitions, in reducing loneliness. It is hoped that this study will aid in the understanding of the causes and maintenance of loneliness in the college student population.

Chapter II

REVIEW OF RELATED LITERATURE

Loneliness has been described as a widespread problem within this country. Results of a survey by Weiss (1973) found that 26 percent of Americans had recently felt lonely. Since an early article by Fromm-Reichmann in 1959, some attention has been given to the subject of loneliness. However, given the magnitude of this problem, there has been a significant paucity of empirical research. While loneliness is a fact of life for millions of Americans, the experience is also an aversive one. It has been linked with feelings of general dissatisfaction, unhappiness, anxiety, hostility, emptiness, boredom, and restlessness (Perlman & Peplau, 1984). Lynch (1976) found that lonely people were more susceptible to physical disorders such as cardio-vascular disease. Finally, loneliness has even been related to a vulnerability to suicide (Wenz, 1977). Thus, the experience of loneliness is not only an aversive one but could be potentially lethal as well.

Despite a growing awareness of this problem, only recently has the scientific community begun to investigate loneliness as a serious topic. There are indications that

social, environmental, and personal factors are all involved
in the current prevalence of loneliness. For example, the
emphasis put on independence and achievement by our society
would seem to work against the development of intimate
friendships. As well, a number of industries have developed
which thrive on the continuance of loneliness. These
enterprises include dating services, personal columns in
magazines, singles' clubs and meeting places from bars to
churches (Weiss, 1984). The national success of these
industries reminds us that loneliness is a problem which is
maintained at all levels of society. However, in line with
much of the psychological research which has been done, this
study is interested more in the personal characteristics of
the individual which contribute to his/her development and
maintenance of loneliness.

The Nature of Loneliness

Loneliness has been defined as the absence or perceived
absence of satisfying social relationships, accompanied by
symptoms of psychological distress (Young, 1982). This
definition rests on the premise that loneliness, like
depression is in large part a cognitive phenomenon. That
is, that the person's perception and evaluation of social
relations and relational deficits result in his/her feelings
of loneliness. Therefore, someone with few friends who
would seem to be lonely, and yet does not manifest any signs

of psychological distress about his/her situation would not be considered lonely. Furthermore, an individual with a broad social network and many friends, who perceives him or herself as lonely would be considered lonely.

Even when an individual is aware of a discrepancy between desired and actual relationships, the discrepancy must also be accompanied by symptoms of psychological distress to be classified as loneliness. Thus, loneliness is almost always accompanied by some negative affective state (Young, 1982). Peplau, Miceli, and Morasch (1982) explain more about the negative affect that defines loneliness by using attribution theory. Lonely individuals make attributions which typically vary along two dimensions: locus of causality (internal vs. external) and stability (changeable vs. unchangeable). If individuals utilize more stable and internal attributions, then there is more likelihood that they will be pessimistic, and may even become somewhat depressed. If they view the problem as due to stable, external forces, then they may respond with anger. Finally, if they view the problem as related to a lack of effort on their part, then they may have no negative feelings, and therefore would not be labeled lonely. Thus, people's feelings are often defined by the attribution they make to explain their loneliness.

Since loneliness is thought to be the result of an individual's subjective attributions, it is difficult to

define any one set of "symptoms" which every lonely person will experience. This would suggest that loneliness is a vague, or diffuse topic. However, past research has delineated some of the universal characteristics of loneliness. One of the most significant factors of loneliness is its chronicity. Young (1982) distinguished three types of loneliness. **Transient** loneliness is the most common experience and refers to short episodes of distress experienced by nearly everyone at some time. **Situational** loneliness involves people who had satisfying relationships until some specific loss or change occurred. If transient or situational loneliness is not resolved, or at least dealt with adequately, a more **Chronic** loneliness can result. This experience usually refers to a perceived lack of satisfactory social relationships for a period of two or more years. From the standpoint of intervention, the greatest need appears to deal with chronic loneliness, and/or its prevention.

Research has identified certain developmental phases during which loneliness is most frequent. Cutrona (1982), for example, reports that three quarters of college students experience at least some loneliness during their first term. At this stage, individuals must often deal with leaving behind parents, friends, and a familiar environment to establish a completely new set of social relationships. It is not surprising, therefore, that loneliness is a serious problem among college students, especially during their

first year (Cutrona, 1982). However, these feelings of loneliness often do not dissipate after as long as a year. Therefore, these students would be considered chronically lonely. The persistence of loneliness among college students is perplexing because there are typically many potential relationships in the lonely student's social environment. The evidence that these students feel lonely, despite objective social opportunities, emphasizes the need to explore the psychological mechanisms that maintain these feelings.

One hypothesis for the development of loneliness is that lonely individuals may respond to others in a manner that does not effectively aid their interpersonal relationships. Some social-skill deficits have been hypothesized to contribute to an individual's difficulties in interpersonal relationships. For example, lonely people seem to have difficulty in communicating interest in others. If such skills have not been acquired or are inappropriate, they may interfere with competence in interpersonal situations and may predispose individuals to rejection. Finally, lonely people may begin to focus on their perceived social inadequacies, thus increasing the likelihood of remaining socially maladjusted (Hausman, 1983). This combination of skill deficits and negative attributions could be a reason for these students' loneliness.

However, studies which have investigated the relationship between loneliness and social skill deficits have not provided definitive results. For example, Jones, Freemon, and Goswick (1981) found that loneliness was positively correlated with shyness, public self-consciousness, social anxiety, and negatively correlated with self-esteem. However, these social-skill deficits were only determined by lonely subjects' self-report. Information from later studies indicated that lonely people, in general, were not evaluated to have social-skill deficits, except by other lonely people. Given that behavioral skill deficits were not consistently related to loneliness, researchers began to look at other factors.

Cognitive Perspectives on Loneliness

The UCLA New Student Study (Cutrona, 1982) suggested another hypothesis about factors that do seem to contribute to chronic loneliness. This study found that the major factors which discriminated between the chronically and transiently lonely students were attitudinal in nature (Cutrona, 1982). Anderson (1980) found that lonely college students tended to attribute their interpersonal failures to unchangeable character defects rather than to changeable personal factors. Students who held these ability/trait attributions were later shown to have lower success expectancies, lower motivation, and actually less successful

social interactions than students who made effort or
strategy attributions. Thus, as Jones (1982) writes, the
reasons for loneliness are found "in the way in which people
perceive, evaluate and respond to interpersonal reality"
(p. 244).

This is consistent with the previous explanations of
cognitive theorists such as Ellis (1962) who theorized that
irrational beliefs or illogical thinking were the primary
factors leading to emotional disturbance or maladjustments.

> According to RET theory, people have innumerable
> Beliefs (B's) ... and these B's importantly and
> directly tend to exert strong influences on their
> cognitive, emotional, and behavioral
> consequences (C's)   (Ellis, 1985, pp. 314-315).

As well, Beck (Beck, et al., 1979) states that cognitive
therapy is based on the underlying theoretical rationale
that an individual's affect and behavior are largely
determined by the way in which he or she structures the
world. He states that the goal of cognitive therapy is to
relieve emotional distress ... "by focusing on the patient's
misinterpretations, self-defeating behavior, and
dysfunctional attitudes" (Beck, et al., 1979, p. 35).
Hoglund and Collison (1989) in their review of the
literature, find that theoretical and empirical data both
show that faulty beliefs, thoughts, assumptions and
perceptions are characteristic of the lonely person. These
data suggest that Ellis' and Beck's assumptions about
irrational beliefs and dysfunctional attitudes may be a

prevalent starting point in the research of lonely individuals.

Previous Studies

Recent research has begun to focus on the importance of lonely individuals' subjective understanding of themselves and their world. This experience may involve negative, dysfunctional attitudes that engender maladaptive social behavior and emotional distress (Wilbert, 1985). Wilbert & Rupert (1986) found a significant predictive relationship between measures of dysfunctional attitudes and loneliness, even after the subjects' level of depression had been controlled. Lonely individuals have been found to hold a negative self-image, a negative view of humanity and society, and to approach social situations with greater cynicism and mistrust than non-lonely individuals (Jones, Freemon & Goswick, 1981; Jones, 1982).

Research by Hammen, Jacobs, Mayol, and Cochman (1980) showed that dysfunctional cognitions were important determinants of maladaptive behavior in lonely individuals as well. People with dysfunctional cognitions seem to differ from others in their beliefs or attitudes in a given situation, without necessarily lacking the knowledge of appropriate behaviors. These dysfunctional cognitions may also contribute to the perceived interpersonal difficulties which lonely people experience. Lonely people seem to

anticipate rejection from others, even without any evidence
in this regard. Such negative thinking may result from
errors in evaluating the situational causes of loneliness
and overestimating the importance of personal factors
(Perlman & Peplau, 1984).

> People may also underestimate the changeability of
> causes of loneliness, leading to feelings of
> hopelessness and self-blame.... Thus, helping
> clients reexamine their beliefs may affect their
> feelings of loneliness.
>   (Perlman & Peplau, 1984, p. 50.)

The Treatment Of Loneliness

There have been few studies to date that have examined
the effect of changing dysfunctional attitudes on
loneliness. Pittman (1976) compared the effectiveness of
three group approaches in reducing loneliness among college
students. The groups included one which used psychodrama
and behavioral rehearsal, a traditional therapy group, and
an interpersonal-interaction group that offered a supportive
atmosphere for sharing. He recruited his subjects from a
campus newspaper advertisement, as well as from 36 students
seeking counseling. To be included in the study, students
had to be classified as "above average" on the Bradley
Loneliness Scale and have a "V" pattern on scales 8,9, and 0
of the Minnesota Multiphasic Personality Inventory.
Finally, only 23 students met these criteria. Although no
one treatment group was found to be better than the others,
all were found to produce significant changes on pre- to
post-treatment on some of the dependent measures. According

to Hausman (1983), there were three main methodological

flaws in this study. First the sample size was small

initially, and was further affected by attrition which may

have been related to a specific type of subject, thus

limiting any conclusions which could be drawn. Second, such

global measures as the MMPI may not have been sensitive

enough to discover subtle behavior and attitude changes.

Finally, no control group or follow-up procedures were used.

Therefore, regression to the mean or spontaneous recovery

cannot be discounted. Despite these methodological

problems, the significant change shown by each group did

indicate the possibility of an effective treatment for

loneliness.

A study by Shaul (1981) compared the treatment of

loneliness using Rogerian and Cognitive treatment groups,

and a delayed control group. Sixty-six adults from the

Seattle area were randomly assigned to one of two Rogerian

support groups, two cognitive-behavioral groups (based on

Meichenbaum's 1977 approach), or two delayed-treatment

control groups. The first two groups provided a supportive

environment without directing the subjects. Participants in

the cognitive-behavioral groups were taught such cognitive

strategies as thought stopping, thought restructuring, and

cognitive rehearsal. Some social-skills were taught in the

4th-6th weeks of this group. All of the treatment groups

met once a week for a total of eight weeks, while the

control groups received no treatment during this time.
Items that were used to measure the progress of these groups
were the UCLA Revised Loneliness Scale, The Beck Depression
Inventory, and the Tennessee Self-Concept Scale. Results
were measured by comparing change scores across groups.
Shaul found that both group counseling procedures were
effective in reducing loneliness. However, again, there
were no significant differences found between the treatment
groups. According to Hausman (1983) the limitations in this
study were that no follow-up measures were given, attrition
was again a serious problem in both groups, and the
Tennessee Self-Concept scale may not have been sensitive
enough to pick up differential treatment effects. Finally,
it is suggested by Shaul, in retrospect, that the cognitive-
behavioral group should have been structured more
didactically, making the two treatments more distinct.

Finally, Hausman (1983) attempted to demonstrate the
superiority of either cognitive-behavioral or social-skills
training in the treatment of loneliness. She approached
introductory psychology classes to request volunteers.
Additionally, she presented a 15 minute lecture describing
loneliness and the nature of the research project. Included
in this lecture was "information on the prevalence and
variability of loneliness, 'symptoms' of loneliness, and
conditions that might influence lonely feelings" (p. 33). A
total of 48 subjects were finally recruited who had met the

criterion for loneliness (score of 49 or higher on the UCLA
Revised Loneliness Scale) and who agreed to participate for
research credit. For the most part, subjects were randomly
assigned to one of the two groups or to the control group.
(There were some exceptions based on student schedule
conflicts, or other time limitations.) Instruments which
were used to measure change included the UCLA Revised
Loneliness Scale, the Texas Social Behavior Inventory, the
Self-Consciousness Scale, the Irrational Beliefs Test, a
Social Skills Questionnaire, and a Personal (demographics)
Questionnaire. Both treatment groups met during the same
five weeks, for two hours weekly. Subjects were required to
attend at least 4 out of the 5 sessions or they would be
dropped from the study.

The social skills group addressed common skill deficits
such as initiating and maintaining social conversations,
maintaining awareness of, and interest in others, giving and
receiving feedback, and appropriate self-disclosure
techniques. These skills were taught through a process of
didactic explanation, modeling, behavioral rehearsal,
coaching and positive feedback.

The cognitive-behavioral group attempted to educate
participants about the cognitive mediators of loneliness.
They provided guided practice in recognizing and challenging
automatic irrational beliefs. "Participants received
didactic information about the manner in which beliefs and

assumptions about self and world can affect behavior and feeling" (Hausman, 1983, p. 42). Subjects were taught to identify their own negative self-statements during role-play of social interactions. Procedures for this group were drawn from the work of Ellis & Greiger (1977), Meichenbaum (1977), and Young (1982).

Results of Hausman's study indicate that the cognitive-behavioral group improved significantly more on the measure of loneliness (UCLA-R) than the social skills or control group. However, no other differences between groups were found. Thus on the Irrational Beliefs Test, despite the expected superiority of the cognitive-behavioral group at post-test, no differences were found between groups. Second, despite the expected superiority of the social-skills group on the Social-Skills Questionnaire, there were no significant differences found between groups. Finally, measurement at 3 week follow-up showed no remaining differences between all three groups (including the control group).

Hausman (1983) presents three explanations for the lack of significant findings in her study. First, the treatments may not have been long enough to be generalized. Second, the treatment may not have been personalized enough to be internalized by the subjects. Finally, the type of loneliness which was experienced by the subjects could be different than that which the groups were geared to treat.

Hausman offers no indication that initial results might have
been related to expectancy effects of subjects. Based on
the lack of change found between cognitive-behavioral
training and a measure of cognitions; as well as the lack of
change found between social-skills training and a measure of
social-skills, it would seem that initial results were
mostly related to demand characteristics of this study for
change in level of loneliness.

Summary and Hypotheses of Current Study

This study seeks to elucidate further, the effect of
modifying cognitive distortions on subject's perceptions of
loneliness. There are some significant differences in the
subject selection, expected subject characteristics, and
focus of this study compared to previous research examined.

First, the subjects will not be actively recruited for
a loneliness experiment, as in the use of a psychology
subject pool, or newspaper advertisements Rather, all
participants in the groups to be offered will be volunteering
solely for the purpose of gaining the proposed benefits of
stress reduction from each workshop. From experience with
previous workshops in this setting, there will also be a
greater variety in the age and background of subjects than
in traditional college settings.

Previous studies have attempted to mediate the
cognitive factors that affect loneliness very directly. For

example, in Hausman's (1983) study, the subjects were told that the purpose of modifying their cognitions was to make them feel less lonely. In fact, they did report feeling less lonely, but without any correlated changes in their reported cognitions. The other previously reported studies (e.g., Shaul, 1981) which have included a cognitive or cognitive-behavioral component have all taught subjects specifically how their cognitions may affect their feelings of loneliness. In these examples, there were still no effects, or the effects shown were related to demand characteristics.

In this study, subjects will not be told that loneliness is the part of the topic specifically being researched. Rather, based upon an understanding of loneliness as a significantly stressful experience, subjects will be recruited through advertisements of a stress-reduction workshop on "Changing Negative Thinking." Second, the Changing Negative Thoughts workshop will not limit its subject matter to loneliness or interpersonal relationships. It will cover a range of topics in which students may experience stress and/or related cognitive distortions (e.g., school, work, friendships, views about self, etc.). The study will examine the effects of attempting to modify participants' cognitive distortions upon these subjects' reports of loneliness.

Finally, the goal which the Changing Negative Thoughts workshop is trying to achieve is a reduction of some of the causes of stress in participant's lives. Because this is how the group is advertised, it can be assumed that participants are currently dealing with stress in their lives which they believe is associated with negative thoughts. Therefore, the use of a social-skills training group as a comparative sample would not make sense, because the focus of that group might not be assumed to be directed at reducing stress. Thus, the two groups could come from two distinct populations. Rather, it was decided that a Relaxation Training workshop should be used as the comparison group. Again, participants in this Relaxation Training workshop would all be volunteers who came specifically for the purpose of reducing stress. However, in the Relaxation Training group, the intervention would be decidedly more behavioral in focus. Thus, this comparison will allow us to determine the effect that the specific cognitive factors have on perceived loneliness.

The specific hypotheses for this study include the following:

Hypothesis 1: Initially, the Changing Negative Thoughts and the Relaxation Training groups will both demonstrate mild-moderate loneliness, and there will be no significant differences between the two groups on pre-test measures of loneliness.

Hypothesis 2: Initially, the Changing Negative Thoughts and the Relaxation Training groups will both demonstrate mild-moderate amounts of stress, and will not significantly differ from one another on pre-test measures of stress.

Hypothesis 3: The Changing Negative Thoughts treatment will produce more improvement than will the Relaxation Training treatment at post-treatment evaluation.

    a.   Participants in the Changing Negative Thoughts group will report significantly less loneliness as a result of treatment than will the Relaxation Training group.

    b.   Participants in the Changing Negative Thoughts group will report significantly fewer negative thoughts (as measured by the Dysfunctional Attitude Scale) than will the Relaxation Training group.

    c.   Participants in the Changing Negative Thoughts group will report significantly less depression (as measured by the Beck Depression Inventory) than will the Relaxation Training group.

Hypothesis 4: The treatment effects cited above will be maintained at a four week follow-up evaluation.

Hypothesis 5: The Changing Negative Thoughts group will change significantly more in behavioral outcome measures (e.g., number of reported friends) than will the Relaxation Training group at follow-up evaluation.

Hypothesis 6: It is predicted for both the Changing Negative Thoughts group and the Relaxation Training group that there will be a significant correlation between the number of times a person practiced post-test to follow-up, and change in their perceived level of stress.

No specific hypotheses are offered regarding differential effects of stress reduction between the two groups.

No differential effects between groups are expected based upon the demographic characteristics (e.g., age, sex, etc.)

Chapter III

METHOD

Subjects

This study involved participants of two outreach groups
run by the Counseling and Developmental Services Center at
Loyola University of Chicago. The first outreach group was
entitled "Changing Negative Thinking." This group is
normally run 1-2 times per year for the purpose of helping
students to alter negative and dysfunctional thoughts which
may be inhibiting them in the course of their daily routine.
This workshop was run six times during the study with 13,
7, 15, 10, 3, and 10 participants, respectively. The total
number of participants in this workshop was 58.

The second group was run especially to serve as a
treatment control group for this study. This group was
entitled "Relaxation Training." Subjects were asked to fill
out the same self-report forms as the first group (see
below) and then were given a workshop encompassing deep
breathing exercises, muscle tensing-relaxing, and imaging.
This workshop was run five times during the study with 4, 5,
18, 8, and 11 participants, respectively. The total number
of participants in this workshop was 46.

These subjects were not actively recruited solely for the purposes of this project, as has been done previously. All participants in the groups were volunteering in order to gain the proposed benefits from each workshop, and their participation in the research project was voluntary. Flyers about the workshops were posted around campus, an advertisement was placed in the school paper, and faculty of all disciplines were asked to announce these workshops in their classes. It was later learned that some students received extra credit for their participation. But there is no evidence that this affected either group differentially. In this study, 62% of the subjects were women, and 82% were caucasian. No significant differences were noted between groups as a result of these subject variables. Certain characteristics did distinguish these subjects from those used in previous studies. The most significant was the effect of Loyola University's Pastoral Studies (IPS) program. Some workshop groups had as much as 60% representation from this group. These subjects are graduate students primarily from Roman Catholic religious orders who are between 30-60 years old, significantly older than the general undergraduate student population. The mean subject age was 25 years old across both groups. It is hoped that these factors will make this study more generalizable to a non-college population.

There were some subjects who did not complete the four week follow-up measures, and thus were not included in the

analyses. However, over 75% did return their forms, making the final number of subjects in the Changing Negative Thoughts group 39, and the final number in the Relaxation Training group 40. Thus, the total subject sample was 79.

Measures

Initially, subjects were presented with a consent form, followed by an additional consent form for the Relaxation Group. This was followed by a sheet asking for demographic information to determine the participant's name, address, phone number and willingness to be mailed a follow-up questionnaire. Subsequent information requested their age, sex, religion, length of current residence, marital status, the number of very close friends, friends, and acquaintances each person has, as well as his/her current level of stress. Most of these questions were repeated in the follow-up evaluation and can be found in Appendix A.

Second, subjects were asked to fill out the Beck Depression Inventory (BDI; Beck, 1967), a 21-item scale in which respondents choose one of four alternative statements that best describes how they presently feel. A higher score indicates greater depression. A Spearman-Brown split-half coefficient of .93 (Beck, 1967) was demonstrated, and validity is supported by significant relationships between test scores and clinical ratings of depression. Because of the close relationship between depression and dysfunctional thinking (Weissman, 1979), it was hoped that this measure

might help the researcher to co-vary out the level of the subject's depression, if there were a confound between level of depression and loneliness.

Subjects were then asked to fill out the Revised UCLA Loneliness Scale (UCLA-R; Russell, Peplau, & Cutrona, 1980). This is a 20-item, self-report measure, with a higher score reflecting greater loneliness. Participants indicated how frequently they experienced each item on a scale from 1 to 4, corresponding to never, rarely, sometimes, and often. Scores range from 20 to 80. A reliability coefficient alpha of .94 was established (Russell, Peplau, & Cutrona, 1980) and validity has been demonstrated with lonely versus non-lonely subject's self-report of behavior and feelings.

Finally, subjects were asked to fill out the short form (DAS-A) of a self-report questionnaire called the Dysfunctional Attitude Scale (DAS). The DAS (and its short forms, DAS-A and DAS-B) were developed by Weissman (1979) as a tool for eliciting the relatively stable attitudes and assumptions theorized by Beck (1967) to cause depression. This scale asks subjects to rate 40 attitude statements on a five point scale from "agree strongly" to "disagree strongly." Sample items include: "I must be a useful, productive, creative person or life has no purpose; If I fail at my work, then I am a failure as a person; If I don't set the highest standards for myself, I am likely to end up a second-rate person." The DAS possesses both adequate test-retest reliability (.81) and high internal

consistency (.88) (Weissman, 1979). Total scores range from 40 to 280. [DAS found in Appendix B].

<u>Procedure</u>

A.   Changing Negative Thoughts Workshop

In this workshop, participants are taught both didactically, and through role-play to identify and challenge their negative self-thoughts. Initially, it is hypothesized that there is a <u>stimulus</u> which triggers negative thoughts (e.g., friend did not call like he promised). This stimulus can trigger <u>negative thoughts</u> (e.g., he is avoiding me; he does not really like me). Related to negative thoughts are <u>negative feelings and behaviors</u> (e.g., feel sad/depressed; just stare out the window rather than do the activities I had planned to do). In the workshop, participants learn about this cycle and are taught methods to become aware of and challenge their negative thoughts or statements, and replace them with more realistic thoughts. Finally, participants are asked to volunteer some examples of their own in order to further generalize how this system can work in their own life.

B.   Relaxation Workshop

In this workshop, participants are taught through didactic training and standardized relaxation tapes, techniques to aid in relaxation. The topics which were covered include: setting aside a quieting time, deep

breathing, muscle relaxation, and finally combining deep breathing and muscle relaxation with visual imagery. Participants were then asked to volunteer information about their subjective experiences of relaxation. Finally, participants were instructed about how they can use the techniques of relaxation at home.

In both of these groups, participants were asked if they would be willing to help evaluate the effectiveness of the workshop. It was stated that doing so is not a requirement to participate in the workshop. Rather, they were told that the information they provided would help us to better evaluate and run these groups in the future. They were informed that we would like them to fill out these forms immediately before and after the workshop, as well as completing a follow-up 4 weeks later. Finally, it was stated that all information from these forms would remain confidential.

Before the workshops then, participants who volunteered to fill out the forms and signed the consent forms, completed the demographic data sheet, the Beck Depression Inventory, the UCLA-R Loneliness Scale, and the Dysfunctional Attitude Scale. Immediately after the workshop, participants were asked to fill out an evaluation of the workshop, the Beck Depression Inventory, the UCLA-R Loneliness Scale, and the Dysfunctional Attitude Scale.

Finally, participants were originally asked to come to the Counseling and Developmental Services Center four weeks

after completion of the workshop, to fill out the follow-up

forms. However, because of such a low percentage of

compliance, the subjects were mailed the follow-up forms

four weeks after completing the workshop. The follow-up

included the Dysfunctional Attitude Scale, the UCLA-R

Loneliness Scale, the Beck Depression Inventory, and

questions from the Demographic about relationships and level

of current stress. [See Appendix A].

Chapter IV

RESULTS

Results of this study will be presented in terms of the
six main hypotheses introduced above: (a-b) The two groups
will initially evidence mild-moderate stress and loneliness,
and there will be no significant differences between the two
groups on pre-test measures of these attributes; (c)
Participants in the Changing Negative Thoughts treatment
will evidence more improvement at post-test, than will those
in the Relaxation Training treatment on measures of
loneliness, negative thinking and depression; (d) The
treatment effects cited above will be maintained at a four
week follow-up evaluation; (e) The Changing Negative
Thoughts group will change significantly more in behavioral
outcome measures (e.g., number of reported friends) than
will the Relaxation Training group at follow-up evaluation;
(f) It is predicted for both groups that there will be a
significant correlation between the number of practices,
post-test to follow-up, and change in the perceived level of
stress.

The first hypothesis indicated that the types of
subjects who would respond to these workshop groups would
not be significantly different from each other on a measure

of loneliness. However, in fact, the subjects who chose the
Changing Negative Thoughts group were significantly more
lonely at pre-test than those who chose the Relaxation group
($\underline{t}(77) = 2.18$, $\underline{p} < .05$). This would be problematic if groups
were compared on absolute loneliness scores. However, since
both groups do change significantly from pre- to post-test on
loneliness (all $\underline{p}$'s $< .05$), change scores of loneliness will
be used to evaluate the effectiveness of each workshop. No
significant differences were found between the two groups on
measures of pre-test stress ($\underline{p} > .05$).

As predicted, the Changing Negative Thoughts group did
make significantly greater overall change on measures of
loneliness than did the Relaxation Group ($\underline{F}$ $(2,150)$,
$\underline{p} < .05$). These differences were strongest in the pre- to
post-test time frame ($\underline{t}(77) = 2.02$, $\underline{p} < .05$). The Changing
Negative Thoughts group also showed a greater amount of
change on Dysfunctional Attitudes from pre-test to post-test
than did the Relaxation Group ($\underline{t}(77) = 1.71$, $\underline{p} < .05$). There
were no significant differences between the groups on pre-
post-test measures of depression ($\underline{t}$ $(77) = 1.08$,
$\underline{p} > .05$). It was noted that both groups had made significant
improvement on measures of depression (as well as loneliness
and negative thoughts) [see Table 1], despite the lack of
significant differences between groups.

At four week follow-up, there were still no significant
differences between the two groups on measures of depression
($\underline{t}(77) = 1.22$, $\underline{p} > .05$). However, the initially significant

Table 1

Change Scores for Both Groups

on the UCLA-R, BDI, and DAS.

	Negative Thoughts Group	Relaxation Group
Pre - Post BDI	$t(38) = 5.02$, $p < .001$	$t(39) = 4.42$, $p < .001$
Pre - Follow-up BDI	$t(38) = 3.99$, $p < .01$	$t(39) = 2.68$, $p < .05$
Pre - Post DAS	$t(38) = 3.40$, $p < .01$	$t(39) = 3.17$, $p < .01$
Pre - Follow-up DAS	$t(38) = 2.43$, $p < .05$	$t(38) = 2.78$, $p < .01$
Pre - Post UCLA	$t(38) = 3.23$, $p < .01$	$t(39) = 2.05$, $p < .05$
Pre - Follow-up UCLA	$t(38) = 2.65$, $p < .05$	$t(39) = 1.08$, $p > .05$ NS

changes by the Changing Negative Thoughts group in loneliness and dysfunctional attitudes had weakened at follow-up as well [Loneliness ($\underline{t}$(77) = .84, $\underline{p}$ > .05); DAS ($\underline{t}$(77) = .08, $\underline{p}$ > .05)].

In the behavioral outcome measures, there was significant change noted for both groups. Both groups changed significantly between pre-test and follow-up in the number of very close friends reported ($\underline{t}$(77) = 2.69, $\underline{p}$ < .01), the number of friends reported ($\underline{t}$(77) = 1.97, $\underline{p}$ < .05), and in the number of acquaintances reported ($\underline{t}$(77) = 2.64, $\underline{p}$ < .01). However, when compared on change in these outcome measures, there were no significant differences found between the two groups (all $\underline{p}$'s > .05).

For neither group, was there any correlation found between the number of practices following treatment and change in level of stress following treatment (see Table 2). A comparison of the number of post-test practices was made with criterion measures and behavioral outcome measures as well. When both groups were combined, there were no consistent correlations between number of post-treatment practices and any other measure. However, when the Changing Negative Thoughts group was considered alone, it was found to have significant correlations between Number of Practices following treatment and both pre - post and pre - follow-up change on the UCLA-R. There was also a significant correlation for this group between number of post-treatment practices and pre - post change on the DAS (see Table 2).

Table 2

Correlations between Criterion Measures

and Outcome Measures

	Both Groups	Negative Thoughts Group	Relaxation Group
Number of Practices and Change in Stress	.17, NS	.14, NS	.21, NS
Number of Practices and Change BDI Pre - Post	.18, NS	.37 *	.07, NS
Number of Practices and Change BDI Pre - Follow-up	.13, NS	.33 *	.03, NS
Number of Practices and Change UCLA Pre - Post	.20, NS	.37 *	.13, NS
Number of Practices and Change UCLA Pre - Follow-up	-.02, NS	.18, NS	-.20, NS
Number of Practices and Change DAS Pre - Post	-.05, NS	.11, NS	-.17, NS
Number of Practices and Change DAS Pre - Follow-up	.06, NS	.25, NS	-.04, NS
Change in Stress and Change BDI Pre - Post	.39 **	.46 **	.33 *
Change in Stress and Change BDI Pre - Follow-up	.63 ***	.66 ***	.62 ***
Change in Stress and Change UCLA Pre - Post	.30 **	.41 **	.21, NS
Change in Stress and Change UCLA Pre - Follow-up	.53 ***	.56 ***	.51 ***
Change in Stress and Change DAS Pre - Post	.26 *	.39 *	.09, NS
Change in Stress and Change DAS Pre - Follow-up	.38 ***	.52 ***	.23, NS
Number of Very Close Friends and Pre-Post Change BDI / Pre-Follow-up Change BDI	.14, NS -.05, NS	-.09, NS -.16, NS	.33 * -.02, NS
Number of Friends and Pre-Post Change BDI / Pre-Follow-up Change BDI	.05, NS -.08, NS	.25, NS .02, NS	-.10, NS -.15, NS
Number of Acquaintances and Pre-Post Change BDI / Pre-Follow-up Change BDI	.14, NS -.03, NS	.24, NS -.02, NS	.02, NS -.05, NS
Number of Very Close Friends and Pre-Post Change UCLA / Pre-Follow-up Change UCLA	.03, NS .07, NS	-.01, NS .16, NS	-.13, NS .00, NS
Number of Friends and Pre-Post Change UCLA / Pre-Follow-up Change UCLA	-.05, NS -.03, NS	.04, NS .06, NS	-.16, NS -.07, NS
Number of Acquaintances and Pre-Post Change UCLA / Pre-Follow-up Change UCLA	.05, NS .03, NS	-.12, NS .19, NS	-.04, NS -.09, NS
Number of Very Close Friends and Pre-Post Change DAS / Pre-Follow-up Change DAS	.00, NS .05, NS	-.09, NS -.11, NS	-.07, NS .19, NS
Number of Friends and Pre-Post Change DAS / Pre-Follow-up Change DAS	.10, NS .22 *	-.01, NS .09, NS	.39 * .35 *
Number of Acquaintances and Pre-Post Change DAS / Pre-Follow-up Change DAS	.05, NS .13, NS	.06, NS -.25, NS	-.01, NS .02, NS

SCORES ARE PEARSON CORRELATIONS

* $p < .05$
** $p < .01$
*** $p < .001$

For both groups, however, significant correlations were noted between change on the criterion measures (BDI, UCLA, DAS) and change in a number of other measures (see Table 2). For example, stress was measured by asking the participants to rate their current level of stress, as well as by combining estimates of their current stress in home, school, relationships, work, health and money into an estimate of current stress. These measures were significantly correlated with each other (r = .45, p < .01) and were found to be significantly correlated to change in criterion measures. However, there were almost no significant correlations noted between outcome measures (e.g., change in number of friends) and any other measures (see Table 2).

No specific hypothesis was generated regarding differential reduction in stress as a result of a specific workshop group. Both types of treatments have been found to be useful in reducing stress for individuals. When both groups were considered together, subjects reported significant change in their reports of current stress (t(77) = 1.65, p < .05). However, no significant differences were found between the two groups in reported reduction in stress (t(77) = .25, p > .05).

Finally, no specific hypotheses were made about change due to any demographic variables. It was found through chi-square analyses, that the two groups did not differ significantly from each other on any variables, with one

exception. The Relaxation Training group rated themselves significantly more active in their religiosity. However, this did not have any significant effects on other measures within the study as there were no significant correlations between this factor and other measures.

Chapter V

DISCUSSION

This study was designed to investigate the effects of an integrative cognitive intervention and a behaviorally focused relaxation intervention on college student loneliness. Loneliness has been understood as a subjective, unpleasant experience resulting from perceived deficiencies in one's social relationships, accompanied by symptoms of psychological distress (Young, 1982). In line with this definition, as well as traditional cognitive theorists, Burns (1985) stated that loneliness is a state of mind caused by an individual's thoughts. Young (1982) continued that it is one's automatic thoughts and underlying assumptions which contribute to his or her feelings of loneliness. Thus, it was hypothesized that "alterations in the content of the person's underlying cognitive structures [might affect his or her] affective state and behavioral pattern" (Beck, et al., 1979, p. 8).

It was predicted that the Changing Negative Thoughts group, which focused on the general alteration of dysfunctional attitudes and negative styles of thinking, would have significantly more impact on participant's

reported feelings of loneliness than would a behaviorally focused relaxation group. Yet, both might effectively target the stressful feelings which impelled participation in the two groups. Finally, there were definite expectations that the Changing Negative Thoughts group should have superior change in the area targeted by its content, negative thoughts.

First, however, it must be noted that the Changing Negative Thoughts group attracted participants who were significantly more lonely than were those subjects in the Relaxation group. Questions about this difference may relate to the ways that these two groups of individuals experience stress. Did these subjects choose a stress reduction program more related to their individual styles of functioning? The only way to answer such a question would be to utilize personality assessment of all the participants within a given group. Despite our lack of understanding about this finding, we may use change scores to evaluate the differential effects of the two groups. Both groups did attract initially "stressed" individuals, as was planned, and no significant differences were found in the initial amounts of stress between groups. No differential effects were noted between the groups as a result of any demographic variables, though there was some notable diversity in the age and background of the subjects in both groups (e.g., the older and significantly more religious Pastoral Studies

students). Hopefully these factors allow for further
generalization of the results.

There was no differential stress reduction between the
groups. However, when the groups were considered together,
subjects in both groups produced significant reduction in
their estimates of current stress from pre-test to follow-
up. This is consistent with previous use of such skill
building groups in the area of stress reduction. However,
it should also be noted that there was no relationship
between the number of practices and reduction in reported
level of stress. In fact, the small amounts of practice by
these subjects (an average of once per week) were not able
to be significantly related to any other measure within this
study. Perhaps if the students in either group had
practiced the skills they were taught, they would have more
substantially reduced their current levels of stress.

Contrary to the predictions of this study, the Changing
Negative Thoughts group did not report significantly greater
change in the number of very close friends, friends, or
acquaintances than the Relaxation group at follow-up.
Individuals in both groups did change significantly from
pre-test to follow-up. However, there were no significant
differences between the two groups. Because the Changing
Negative Thoughts group received a generalized cognitive
intervention, it was expected that this training would
significantly impact upon a greater range of behaviors than
would the more specific training of the Relaxation Group.

However, change in friendships may have been too specific an effect to result from such a global cognitive intervention. Another explanation is that the time frame pre- to follow-up was too short for this effect to occur. These results will be re-examined after reviewing the effects of the main treatment focus.

This study found that the Changing Negative Thoughts group made significantly greater change on measures of loneliness from pre- to post-test, than did the Relaxation Training group. In the research cited above, it has been noted that loneliness is considered a cognitively based phenomenon. Therefore, an intervention specifically targeted toward changing dysfunctional cognitions was expected to have a greater impact upon the experience of loneliness. The loneliness scores of the Changing Negative Thoughts group were initially greater than those of the Relaxation Training group. Therefore, one could argue that this change was regression to the statistical mean for the experimental group. However, the fact that the Relaxation Training group also made statistically significant change in level of loneliness would suggest that it was the differences between the two groups which account for the greater change on the part of the experimental group. Thus, the effects of the specific cognitive training appear to have produced the greater change for subjects in the Changing Negative Thoughts group.

Despite these initially significant changes however, no differences were found between the two groups at follow-up. The scores of the two groups were examined in order to gain a better understanding of this finding. The mean scores on the UCLA-R continued to decrease for the Relaxation group, pre-test to follow-up, while those for the Negative Thoughts group leveled out. This explanation suggests that the effect of both workshops may be similar, but that it takes longer for the effects to generalize from relaxation training to a specific factor such as loneliness, a factor believed to be cognitively mediated. Future studies may wish to examine these changes across an even greater time period.

It is important not to ignore the significant change in the "control" group, as well. Beck (Beck, et al., 1979) emphasizes that clinicians should not forget "to recognize the connections between cognitions, affect and behavior" (p. 4). Perhaps the Relaxation Training workshop altered more than just the physiological condition of its participants. It could be hypothesized that these subjects, feeling more relaxed and presumably more positive, achieved a heightened awareness of previously negative patterns of thinking. With a change in their affective state, and a resultant change in their cognitive state, these subjects may have undergone the same transformation regarding their lonely feelings that the experimental group experienced.

This assumption is supported by examining the change of dysfunctional attitudes in both groups. Again, the Changing Negative Thoughts group made a significantly greater change from pre-test to post-test on measures of dysfunctional attitudes than did the Relaxation Training group. However, the focus of that workshop was targeted to negative and dysfunctional styles of thinking. There was no direct focus on cognitions in the Relaxation Training group; in fact that group specifically avoided a cognitive focus in its role as an attention control group. Yet, when examined individually, both groups made significant change pre-test to post-test, and pre-test to follow-up in this area. Finally, the initially significant results of the Negative Thoughts group over the Relaxation group had again dissipated by follow-up, despite each group maintaining its individual significance.

Returning to the issue of behavioral outcome criterion (e.g., change in number of friendships), it seems plausible that since both groups changed, but were not significantly different on measures of loneliness and negative thinking at follow-up, that there would also be non-significant differences in the effect on subjects' ability to make friends and acquaintances. If subjects have improved equally in their ability to attend to their cognitions, they may also better understand their own and others' emotions, thus changing the cognitive perceptions of their loneliness, and possibly even their behavioral style of interaction with others.

In previous research, similarities have sometimes been discovered between the experimental and control groups. In these instances, researchers (e.g., Hausman, 1983) have often attempted to explain their findings by criticizing the workshop groups. These researchers most consistently cite the following problems as reasons for their lack of results: 1) lack of personalization of the workshops, 2) that the workshops affect different types of loneliness or different levels of cognition than the subjects were currently experiencing, or 3) that the treatment was not of significant length to ensure internalization of the concepts involved in challenging one's negative beliefs. These explanations are plausible. Perhaps the initially significant changes in loneliness for the Changing Negative Thoughts group did not continue because the treatment was for too brief a period. Perhaps the other ideas hypothesized by these researchers account for some of the lack of significant differences between groups. However, these explanations make it difficult to account for the many significant changes which were found in this study.

Perhaps the most appropriate explanation for these results is one yet to be offered in the literature reviewed by this researcher. That is, that the cognitive structures, targeted for change in these studies, may not be isolated structures, impervious to the effects of other treatments. As Mahoney (1985) suggests,

> What is being popularized in today's wave of
> cognitivism, seems superficially mediational and
> unnecessarily restrictive in its notions of
> contemporary cognitive psychology. I do not
> believe that the simple... reinforcement of
> "positive self-statements" or the rationalistic
> "reconstruction" of explicit beliefs result in
> enduring personal development. (p. 14)

He goes on to suggest that although these interventions on

an explicit, surface level signify movement toward the

refinement of our understanding of people, we should be

careful not to over-estimate people's powerful and primitive

pre-rational modes of knowing and adapting to their world.

(Mahoney, In Press). Thus, cognitive change may take place

on non-verbal levels of functioning as well.

Two cognitive researchers who agree with Mahoney's

assumptions are Guidano and Liotti (1985). They state that

the functional parallelism between cognition and emotion is

based on a complex, bidirectional, interactive process.

First, the content and structure of our cognitions are

based, in part, on the quality of our emotions and the

capacity for labeling and decoding our own and others'

feelings. Second, our emotions influence our cognitive

processes at the most basic levels (perception, attention,

etc.) subsequently affecting higher level cognitive

processes such as thought representation and problem-solving

ability. So, perhaps the effect of the Relaxation Training

group, was to allow its participants more accurate access to

both first and second level cognitive processing. Thus,

they became more aware of the cognitive and/or behavioral

factors which affect their feelings of loneliness. Given
this evidence of dynamic, multi-directional change, future
research must re-evaluate our knowledge and understanding of
individual change processes.

Summary and Future Directions

The results of this study are encouraging, especially in
light of previously unsuccessful cognitive intervention
strategies on college student loneliness. The Changing
Negative Thoughts group initially reduced its experience of
dysfunctional thinking and loneliness significantly more
than the Relaxation Training group. Although superiority on
these measures did not continue through follow-up, there was
still significant change for both groups at that evaluation.
Some explanations for these findings have been discussed
above.

The results of this study suggest that a generalized
cognitive intervention is an effective tool in the treatment
of a number of cognitively related problem areas, not the
least of which is loneliness. Given the prevalence of
loneliness among college students today, as well as the
serious significance of the problem for those individuals
experiencing loneliness, now is a critical time in the
exploration of effective intervention strategies. As Rook
(1984) indicates, controlled investigations of the
effectiveness of intervention strategies are sorely needed.
As well, researchers (Peplau & Perlman, 1982) emphasize that

the treatment of loneliness on an individual basis may not

be sufficient to deal with the severity of this problem.

Rather the possibility of interventions at a group, and

possibly societal level should be examined.

One goal for future research would be to conduct a

similar study, utilizing on-going treatment in a time-series

design. In this manner, researchers might better understand

at what point optimal change takes place. Second, a time-

series design might indicate whether the Negative Thoughts

group had in fact stabilized at follow-up and the Relaxation

group was continuing to change, or whether some regression

was occurring in the Negative Thoughts group on measures of

loneliness and dysfunctional attitudes.

Future interventions should all take into account the

dynamic interaction of intervention strategies. Treating

someone's cognitions may affect his or her mood, behavior

and physiology; but, the present research also demonstrates

that intervention in these areas may also affect one's

cognitions. One goal for future research might be to

determine the specific types of situations in which

treatment of an individual's thoughts, attributes and

assumptions is most effective. A better understanding of

the way that individuals with specific personality types

respond to these treatments, would also help researchers to

"personalize" the treatments. A final area of future

research would be to explore the in vivo cognitions, or

automatic thoughts which an individual has during an interpersonal interaction. Although this calls for an more complex research methodology, understanding the experiences of a person in a given setting will undoubtably further our understanding of the topic of loneliness in general. Regardless of the type of study performed, it is strongly recommended, in accordance with Weiss (1982), that researchers should continue to focus on the application of their work. The phenomenon of loneliness is such an aversive experience, that we have an overwhelming responsibility to help those who are experiencing its effects.

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APPENDIX A

GENERAL CONSENT FORM

Dear Friend,

Thank you for volunteering to participate in this project.

Please know that all of the information that we collect today is <u>confidential</u>. This means that it will be seen only by myself and other qualified researchers and will be use for research purposes only. Further, the information is <u>anonymous</u>. Your name will not appear on any of the data. Instead, we are coding all of the information by number, not name. Finally, should you decide at any point to discontinue your participation in our project, for whatever reason, please feel free to do so. Though we do not expect that this will happen, we want you to know that you are free to leave the study at any point in time.

This outcome of this study requires that we collect information at different points in time. Therefore, we will be asking you to fill out different forms and/or questionnaires immediately before and after the study, as well as four (4) weeks from now.

Will you be willing to fill out forms which will be mailed to you in approximately four weeks at the address you have provided us (taking 20 minutes)?
_____ Yes _____ No

Please feel free to ask any questions. Once again, thank you for participating in our project.

Sincerely,

James Keyes, M.A.

I have read the above and understand it.

_____   _____
Signature   Date

_____
Address (as of May 1, 1989)

Phone Number: _____   Date of Birth: ____/____/____

RELAXATION TRAINING WORKSHOP

CONSENT FORM

During this workshop, you will be asked to tense and relax various muscle groups at times. DO NOT OVERDO THIS EXERCISE. Excessive tightening of certain muscles, especially of the neck and back, can result in strain and damage. Overtightening the toes or feet can cause muscle cramping. If pain or cramps develop during relaxation training, rest the affected muscles until the discomfort diminishes, then proceed with less intensity.

You may notice sensations of heaviness, warmth or tingling in your muscles. This is normal and is often a part of becoming deeply relaxed.

If you have any questions or concerns, talk with the coordinator of the program, or one of the staff psychologists.

I have read the above statement and am aware of the risks involved in relaxation training. I agree to participate at my own rate, remaining fully responsible for my own progress during the course of this workshop.

_____   _____
Signature   Date

GENERAL INFORMATION QUESTIONNAIRE

1. Sex: ___ Male ___ Female

2. Race: ___ White ___ Black ___ Hispanic
    ___ Asian Pacific ___ Asian Indian ___ American Indian
    ___ Other (Specify_____)

3. Religion: ___ Catholic ___ Protestant ___ Jewish
    ___ None ___ Other (Specify_____)

        How active are you in this religion?

        1   2   3   4   5   6   7
    Not at all   Very Much

4. Marital Status: ___ Single ___ Married ___Divorced
    ___ Widowed ___ Remarried ___ Separated
    ___ Cohabitating ___ Religious Orders

5. Parents' marital status: ___ Married ___ Divorced
    ___ Separated ___ One Deceased ___ Both Deceased

6. Where do you live?
    _____ On campus dormitory or apartment
    _____ Off campus apartment
    _____ Off campus with parents
    _____ Other (Specify _____)

7. How long have you lived in your present neighborhood?
    _____ Less than 6 months
    _____ 6 months to 1 year
    _____ 1 year to 2 years
    _____ More than 2 years

8. If you are unmarried and not ordained, how many dates have you had with a member of the opposite sex in the past two months? _____

9. Are you presently romantically involved with anyone? _____ Yes ___ No

If yes, how long has this relationship existed? _____

10. How many very close friends do you have? (That is, someone with whom you could talk about extremely personal/confidential matters) _____

11. How many additional people do you know whom you would classify as a friend? (That is, someone you interact with on a fairly regular basis, yet who you would not necessarily confide in) _____

12. How many additional people do you know who you would classify as a casual acquaintance? (That is, someone you interact with infrequently and know well enough to speak to when you run into them) _____

13. How satisfied are you with your social life in general (friendships, personal relationships), excluding romantic involvements?

    1   2   3   4   5   6   7

Not at all   Very Much

14. How long have you felt this current level of satisfaction?

_____ < 6 mos. _____ 6 mos-1 year _____ 1-2 yrs _____ > 2 years

15. How much stress are you currently experiencing?

    1   2   3   4   5   6   7

  None   Very Severe

16. How would you rate your usual level of stress?

    1   2   3   4   5   6   7

  None   Very Severe

17. How much stress do you currently feel in each of these areas?

	SCHOOL								WORK				
1	2	3	4	5	6	7		1	2	3	4	5	6	7

	HOME								HEALTH				
1	2	3	4	5	6	7		1	2	3	4	5	6	7

	RELATIONSHIPS								MONEY				
1	2	3	4	5	6	7		1	2	3	4	5	6	7

ADDENDUM ADDED TO PAGES 2 & 3 AT FOLLOW-UP

Did you use the forms provided in the workshop to chart your
Negative Thoughts?   _____   Yes   _____   No

How many times did you use the form provided by the workshop
during the last four (4) weeks?   _____

OR

Did you use the forms provided in the workshop to keep track
of the number of times you used Relaxation Training?
_____ Yes   _____   No

How many times did you use the form provided by the workshop
during the last four (4) weeks?   _____

APPENDIX B

<u>DAS</u>

<u>FORM A</u>

This inventory lists different attitudes or beliefs which people sometimes hold. Read <u>EACH</u> statement carefully and decide how much you agree or disagree with the statement.

For each of the attitudes, show your answer by placing a check-mark ( ) under the column that BEST DESCRIBES HOW YOU THINK. Be sure to choose only one answer for each attitude. Because people are different, there is no right answer or wrong answer to these statements.

To decide whether a given attitude is typical of your way of looking at things, simply keep in mind what you are like most of the time.

ATTITUDES	Totally Agree	Agree Very Much	Agree Slightly	Neutral	Disagree Slightly	Disagree Very Much	Disagree Totally
1. Most People are O.K once you get to know them.		✓					

Look at the example above. To show how much a sentence describes your attitude, you can check any point from totally agree to totally disagree. In the above example, the checkmark at "agree slightly" indicates that this statement is somewhat typical of the attitudes held by the person completing the inventory.

Remember that your answer should describe the way you think <u>MOST</u> <u>OF</u> <u>THE</u> <u>TIME</u>.

<u>NOW TURN THE PAGE AND BEGIN</u>

DAS

ATTITUDES	Totally Agree	Agree Very Much	Agree Slightly	Neutral	Disagree Slightly	Disagree Very Much	Disagree Totally
REMEMBER, ANSWER EACH STATEMENT ACCORDING TO THE WAY YOU THINK MOST OF THE TIME.							
1. It is difficult to be happy unless one is good looking, intelligent, rich and creative.							
2. Happiness is more a matter of attitude towards myself than the way other people feel about me.							
3. People will probably think less of me if I make a mistake.							
4. If I do not do well all the time, people will not respect me.							
5. Taking even a small risk is foolish because the loss is likely to be a disaster.							
6. It is possible to gain another person's respect without being especially talented at anything.							
7. I cannot be happy unless most people I know admire me.							
8. If a person asks for help, it is a sign of weakness.							

DAS

ATTITUDES	Totally Agree	Agree Very Much	Agree Slightly	Neutral	Disagree Slightly	Disagree Very Much	Disagree Totally
9. If I do not do as well as other people, it means I am an inferior human being.							
10. If I fail at my work, then I am a failure as a person.							
11. If you cannot do something well, there is little point in doing it at all.							
12. Making mistakes is fine because I can learn from them.							
13. If someone disagrees with me, it probably indicates he does not like me.							
14. If I fail partly, it is as bad as being a complete failure.							
15. If other people know what you are really like, they will think less of you.							
16. I am nothing if a person I love doesn't love me.							
17. One can get pleasure from an activity regardless of the end result.							
18. People should have a reasonable likelihood of success before undertaking anything.							

DAS

ATTITUDES	Totally Agree	Agree Very Much	Agree Slightly	Neutral	Disagree Slightly	Disagree Very Much	Disagree Totally
19. My value as a person depends greatly on what others think of me.							
20. If I don't set the highest standards for myself, I am likely to end up a second-rate person.							
21. If I am to be a worthwhile person, I must be truly outstanding in at least one major respect.							
22. People who have good ideas are more worthy than those who do not.							
23. I should be upset if I make a mistake.							
24. My own opinions of myself are more important than other's opinions of me.							
25. To be a good, moral, worthwhile person, I must help everyone who needs it.							
26. If I ask a question, it makes me look inferior.							
27. It is awful to be disapproved of by other people.							
28. If you don't have other people to lean on, you are bound to be sad.							

DAS

ATTITUDES	Totally Agree	Agree Very Much	Agree Slightly	Neutral	Disagree Slightly	Disagree Very Much	Disagree Totally
29. I can reach important goals without slave driving myself.							
30. It is possible for a person to be scolded and not get upset.							
31. I cannot trust other people because they might be cruel to me							
32. If others dislike you, you cannot be happy.							
33. It is best to give up your own interests in order to please other people.							
34. My happiness depends more on other people than it does on me.							
35. I do not need the approval of other people in order to be happy.							
36. If a person avoids problems, the problems tend to go away.							
37. I can be happy even if I miss out on many of the good things of life.							
38. What other people think about me is very important.							
39. Being isolated from others is bound to lead to unhappiness.							
40. I can find happiness without being loved by another person.							

Approval Sheet

The dissertation submitted by James Anthony Keyes has been
read and approved by the following committee:

    Dr. Alan S. DeWolfe, Director
    Professor in Psychology

    Dr. Daniel F. Barnes
    Clinical Associate Professor in Psychology

    Dr. Linda Heath
    Assistant Professor in Psychology

The final copies have been examined by the director of the
dissertation and the signature which appears below verifies
the fact that any necessary changes have been incorporated
and that the dissertation is now given final approval by the
Committee with reference to content and form.

The dissertation is therefore accepted in partial
fulfillment of the requirements for the degree
Doctor in Philosophy.

2/22/91
_____
Date

Alan S. DeWolfe, Ph.D.
_____
Alan S. DeWolfe, Ph.D.

Director