The University of Manitoba

The Comparative Effectiveness of Social Skill Training and Cognitive Restructuring in the Treatment of Loneliness

by

© Janet Orchard

a Thesis

Submitted to the Faculty of Graduate Studies

in Partial Fulfillment of the Degree

Doctor of Philosophy

Department of Psychology

Winnipeg, Manitoba

1986

Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

L'autorisation a été accordée à la Bibliothèque nationale du Canada de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur (titulaire du droit d'auteur) se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation écrite.

ISBN 0-315-33966-7

THE COMPARATIVE EFFECTIVENESS OF SOCIAL SKILL TRAINING AND COGNITIVE RESTRUCTURING IN THE TREATMENT OF LONELINESS

BY

JANET ORCHARD

A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

DOCTOR OF PHILOSOPHY

© 1986

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this thesis, to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this thesis.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

I would like to preface this thesis with an expression of my gratitude to the members of my committee, Dr. J. Schallow, Dr. D. Dyck and Dr. E. Boldt for their valuable comments and suggestions throughout the research. I would like to thank Dr. Karen Rook, the external examiner, for her informative comments on the final report. Finally, my special thanks go to Dr. Daniel Perlman, my advisor, for sharing his research expertise and for extending moral support throughout the project.

This research was supported by a grant from the Manitoba Mental Health Research Foundation.

TABLE OF CONTENTS

CHAPTER	Page
List of Tables	
List of Figures	
List of Appendice	
Abstract	xiii
I. Literature Review	
Definition of Loneliness	4
Social Skill Deficits	
Intimacy Deficits	5
Self Disclosure Ability	7
Self-Monitoring Ability	9
Personal Opinion Expression	10
Personal Attention Responding	10
Coping Strategies	10
Cognitive Distortions	11
Self-Esteem	12
Attribution Style	14
Typologies of Loneliness	15
Treatment Implications of the Situational versus Chronic Loneliness Distinction	18
Spontaneous Change in Loneliness Over Time	20
Loneliness Therapy - Outcome Research	21
Two Types of Therapy	
Social Skill Training	26
Cognitive Restructuring	27
Hypotheses	33

Page

II. Method

Initial Screening Process 35

Design of the Final Investigation 36

Subjects 38

Measurement of Dependent Variables

Self-Report Measures 40

UCLA Loneliness Scale 40

CES-D Depression Scale 41

Rosenberg Self-Esteem Scale 42

Self-Monitoring Scale 42

Fear of Negative Evaluation 43

Reactions to Social Situations 43

Attribution Measure 44

Coping Styles 45

Interaction Diary 45

Behavioural Measures 46

Training of Group Leaders 47

Treatment Approaches

Social Skill Training Procedures 48

Behavioural Rehearsal 48

Modeling Procedures 50

Relaxation Training 51

Information Giving 51

Social Skill Training Weekly Sessions

Training Session One 52

Training Session Two 54

Page

Training Session Three 54

Training Session Four 55

Training Session Five 55

Training Session Six 56

Training Session Seven 56

Training Session Eight 57

Training Session Nine 57

Cognitive Restructuring Program

Refuting Irrational Thoughts 58

Reattribution 60

Stress Innoculation Training 60

Cognitive Restructuring Weekly Sessions

Training Session One 61

Training Session Two 62

Training Session Three 63

Training Session Four 64

Training Session Five 64

Training Session Six 65

Training Session Seven 66

Training Session Eight 66

Training Session Nine 66

Data Collection - Waiting List Control 67

Collection of Follow-Up Data 67

III. Results 68

Results of Attempt to Form Situational and Chronic Loneliness Clusters 70

Page

Survey Results 76

Tests for Between Group Differences as a function of therapist 78

Evaluation of the Impact of the Active Treatments 79

Changes to Loneliness, Mood and Self-Esteem 80

Cognitive Restructuring versus Waiting List Control 88

Social Skill Training versus Waiting List Control 90

Cognitive Restructuring versus Social Skill Training 90

Changes in Fear of Negative Evaluation and Self-Monitoring Ability 93

Between Group Differences in Videotaped Social Skills 95

Comparison of Reported Social Interaction at Three Assessment Intervals 97

Changes in Coping Style of Treatment and Control 105

Causal Attributions for Successful Social Experiences 106

Causal Attributions for Unsuccessful Social Interactions 109

Changes in Perceived Social Skill 113

Patterns of Behavior Change Associated with Decreases in Loneliness 121

Influence of Pretreatment Perceived Social Skill upon Response to Social Skill Training versus Cognitive Restructuring 122

Page

Influence of Pretreatment Score on Fear of Negative Evaluation Scale upon Response to Cognitive Restructuring versus Social Skill Training 125

Summary of Results 127

IV. Discussion

Spontaneous Changes in Mood, Self-Concept and Cognitions 130

Proposed Mechanism of Spontaneous Recovery 134

Impact of the Two Treatment Programs 135

Differences in the Effectiveness of the Two Treatment Programs 136

Methodological Limitations 137

Dependent Variables 137

Experimental Manipulation 139

Change Mechanism of the Two Treatments 140

The Situational versus Chronic Loneliness Distinction 142

Implications for the Treatment of Loneliness 143

Directions for Future Research 146

Summary 147

V. References 149

LIST OF TABLES

TABLE		Page
1	Results of Cluster Analysis - Brief Questionaire	72
2	Cluster Analysis of Lonely Subjects' Responses to Brief Questionaire	74
3	Cluster Analysis Results - Lonely Subjects' Responses to Detailed Questionaire	76
4	Interaction of Treatment Type and Time Factors Univariate and Multivariate Results	82
5	Time Main Effect - Standardized Discriminant Function Coefficients	87
6	Contrast of Cognitive Restructuring and Waiting List Control - Univariate and Multivariate Results	90
7	Social Skill Training versus Waiting List Control Univariate and Multivariate Results	92
8	Reliability Data for Videotape Coding	97
9	Group Means on Six Social Skills	99
10	Group Means and Standard Deviations on Intimacy Ratings	101
11	Time Main Effect - Coping Styles Univariate and Multivariate Results	107
12	Time Main Effect - Attributions for Successes - Univariate and Multivariate Results	110

TABLE		Page
13	Time Main Effect - Attributions for Failures - Univariate and Multivariate Results	112
Q1	Multivariate Analysis of Variance Summary Table - Test of Effect of Therapist Factor on UCLA, CES-D, SES	343
Q2	Multivariate Analysis of Variance Summary Table - Relationship of Therapist and Treatment Factors - Video Data	344
Q3	Cell Means of Treatment Groups on Five Dependent Measures Over Time	345
Q4	Multivariate Analysis of Variance Summary Table - Tests Performed on UCLA, CES-D, SES	346
Q5	Analysis of Variance Summary Table - FNE and SMS	347
Q6	Multivariate Analysis of Variance Summary Table - Video Data	348
Q7	Multivariate Analysis of Variance Summary Table - Intimacy Ratings	349

TABLE		Page
Q8	Multivariate Analysis of Variance Summary Table - Interaction Diary Data	350
Q9	Multivariate Analysis of Variance Summary Table - Coping Style Data	351
Q10	Multivariate Analysis of Variance Summary Table - Attributions for Success	352
Q11	Multivariate Analysis for Variance Summary Table - Attributions for Failure	353
Q12	Subject Group Means on the Five Relationship Skills	354
Q13	Multivariate Analysis of Variance Summary Table - Perceived Social Skill Ratings	355
Q14	Multiple Regression of Coping Styles and Social Skill Ratings on UCLA Loneliness Scores	356
Q15	Multivariate Analysis of Variance Summary Table - Influence of Initial Level of Relationship Skill	357
Q16	Multivariate Analysis of Variance Summary Table - Influence of Initial Level of Fear of Negative Evaluation	358

TABLE		Page
R1	Pearson Correlations of Dependent Measures at Pre-Treatment	360
R2	Pearson Correlations of Dependent Measures at Pre-Treatment	361
R3	Pearson Correlations Between Dependent Measures at Post-Treatment	362
R4	Pearson Correlations Between Dependent Measures at Post-Treatment	363
R5	Pearson Correlations Between Dependent Measures at Follow-Up	364
R6	Pearson Correlations Between Dependent Measures at Follow-Up	365

LIST OF FIGURES

FIGURE		Page
1	Changes in level of loneliness as a function of treatment type.	84
2	Changes in level of depression as a function of treatment type.	85
3	Change in level of self-esteem as a function of treatment type.	86
4	Changes in level of fear of negative social evaluation as a function of treatment type.	95
5	Differences between the three subject groups on the measures of time in high, medium, and low intimacy interactions.	103
6	Changes over time in frequency of internal, unstable attributions for social failures.	113
7	Changes over time in frequency of external, stable attributions for social failures.	114
8	Performance of the three subject groups on the significant discriminant function associated with the significant main effect of time of assessment.	116
9	Changes over time on rated competency at initiating relationships.	118
10	Changes over time on rated competency at self-disclosure.	119
11	Changes over time on rated competency at emotional support giving.	120

FIGURE		Page
P1	Patterns of change over time in amount of high intimacy interaction varied as a function of subject group	339
P2	Change over time in amount of low intimacy interaction reported - Differences between subject groups	340
P3	Changes over time in amount of medium intimacy interaction reported - Differences between subject groups	341
S1	Scores on UCLA Scale for each level of Relationship Skill factor as a function of Treatment condition	367
S2	Changes over time on UCLA Scale for each level of the Fear of Negative Evaluation factor	368
S3	Changes over time on Self-Esteem Scale for each level of Fear of Negative Evaluation factor	369

Page

Appendices

A	Brief Screening Questionaire	161
B	Detailed Screening Questionaire	166
C	UCLA Loneliness Scale	186
D	CES-D Depression Scale	189
E	Rosenberg Self-Esteem Scale	191
F	Self-Monitoring Scale	194
G	Fear of Negative Evaluation Scale	196
H	Reactions to Social Situations Scale	199
I	Attribution Questionaire	204
J	Coping Style Questionaire	207
K	Interaction Diary	209
L	Videotape Coding Form	212
M	Social Skill Training Procedures and Handouts	214
N	Cognitive Restructuring Procedures and Handouts	276
O	Cover Letters - Follow-up Assessment	334
P	Graphs of Intimacy Ratings	338
Q	Summary Tables of Main Analyses	342
R	Pearson Correlations Between the Dependent Measures at the Three Assessment Intervals	359
S	Graphs of the Relationship Between Initial Social Skill and Fear of Negative Evaluation and Change in Loneliness and Self-Esteem	366

ABSTRACT

The goal of the study was the exploration of the comparative effectiveness of two group-administered treatment strategies in the alleviation of loneliness. Female first-year university students were selected for participation on the basis of their response to the UCLA - Revised Loneliness Scale. Those individuals who scored in the top 25 % of the distribution were approached and offered participation in the study in exchange for partial credits in an introductory psychology course. A total of 132 agreed to participate and were randomly assigned to one of the treatment conditions (cognitive restructuring or social skill training) or to waiting list control. The treatment groups were conducted by three advanced graduate students in clinical psychology. A total of 8 groups were run, four social skill training and four cognitive restructuring. Of the 132 who joined initially, 108 completed the study. Of that 108, 38 were waiting list control subjects. The performance of the subjects in the three conditions was compared at three points: pre-treatment, immediately post-treatment, and at three-month follow-up. Dependent measures were selected to assess three modalities: self-report, self-monitoring, and objective behavioural observation. The subjects assigned to the two active treatment conditions were compared to one another and to those assigned to control. The roles of initial level of perceived social skill and of fear of negative social evaluation in determining response to the two treatments were examined.

As predicted, social skill training and cognitive restructuring resulted in significant reductions in loneliness and depression and significant increases in self-esteem when contrasted with the waiting list control condition. Decreased loneliness, regardless of treatment

condition, was strongly association with decreased depression and increased use of active coping strategies. In addition, increased capacity to be emotionally supportive of friends was a significant predictor of decreased loneliness and depression.

Also as predicted, all subjects regardless of treatment condition, increased their use of active coping strategies (e.g., social interaction) to cope with loneliness. All subjects also evaluated themselves as more able to initiate relationships, to self-disclose, and to be emotionally supportive of friends at three-month follow-up as compared to pre- treatment assessment. Over time, all subjects (treatment and waiting list control) revealed changes in the causal attributions they made for both social successes and social failures. All reported increases in the frequency with which they accounted for successes and failures by focussing on the effort they had expended and on stable features of their immediate environment (whether it was supportive or non-supportive).

No changes were detected in the social interactions reported by subjects on the interaction diaries. Neither the expected differences between active treatment condition subjects and waiting list control subjects over time nor an overall change in all subjects was observed. The decreases in loneliness, depression and fear of social rejection, and increases in self-esteem were not reflected in changes to the reported frequency or quality of social interactions. The expected differences over time in the social skills of the social skill training subjects compared to the cognitive restructuring and waiting list control subjects were not detected. No significant changes were observed on any of the behavioural indices. The predicted relationship between initial social

skill and fear of negative social evaluation and response to the two treatments was not confirmed by the results of the study. All subjects revealed declining loneliness over time. Finally, those assigned to either of the two types of treatment overcame their loneliness more dramatically.

CHAPTER ONE

Numerous contemporary writers view loneliness as a major phenomenon of the twentieth century (Gordon, 1976; Rogers, 1970; Sadler, 1975). Gordon (1976) remarked that: "What was once only a philosophical problem, spoken of mainly by poets and prophets has now become an almost permanent condition for millions of Americans." Some may take issue with Gordon's conclusion that loneliness is an "almost permanent condition". Nevertheless, her statement does reflect the consensus that loneliness is a widespread condition.

In light of these observations, it is rather surprising that prior to the last decade there was little research interest in the phenomenon. Perhaps this neglect reflected man's unwillingness to come face to face with his own loneliness (Fromm-Reichmann, 1973). In addition, loneliness may not have been sufficiently rare or exotic to be of research interest (Rook & Peplau, 1982). Whatever the reasons for this earlier neglect, since 1975 the literature concerning loneliness has burgeoned to include numerous articles and three important books (Hartog, Audy, Cohen, 1980; Peplau & Perlman, 1982; Rubenstein & Shaver, 1982b). Initially research focused upon the prevalence of loneliness, its phenomenology as well as its etiology. Results of that research have indicated that loneliness is worthy of study due to both its prevalence and its negative consequences. In one national study, Bradburn (1969) discovered that within a several week period, 26% of American adults reported feeling very lonely or

remote from other people. Weiss (1973) found that approximately one in nine individuals interviewed reported having suffered from severe loneliness in the preceding week. Loneliness has been interpreted as one of the primary reasons that people seek psychotherapy (Fromm-Reichmann, 1959; Rogers, 1970). It has been linked to a variety of serious mental health problems including depression (Bragg, 1979; Cutrona, 1981; Peplau, Russell & Heim, 1979; Weeks, Michela, Peplau & Bragg, 1980), alcoholism and drug addiction (Bell, 1956; Gaev, 1976), and suicide (Wenz, 1977).

Deficits in social relationships seem to put individuals at risk for the development of more serious problems. Kazdin (1979) summarized the considerable evidence that exists concerning the relationship between premorbid levels of social functioning and responsivity to treatment and length of hospitalization for mental health problems. Henderson (1980) noted that:

> a deficiency in social bond may itself be a cause of some forms of nonpsychotic morbidity, and this effect may be independent of the load of adversity. Seen in this way, social bonds are postulated as necessary in themselves for mental health (p. 64).

In the face of the impressive evidence that points to the importance of social connectedness for psychological wellbeing it is imperative that we begin to develop programs aimed at the facilitation of social relations. As Rook and Peplau (1982) noted, there exists a great need for careful investigation of the outcome of therapy for loneliness.

Several authors have offered general advice to the lonely. Weiss (1975) recommended that the lonely person should "direct (his/her) energy to projects, friendships, groups (he/she) cares about" (p. 238).

Rosenbaum and Rosenbaum (1973) were even less specific in their recommendations. According to these authors, lonely people must get to know themselves better, cleanse their minds of past resentments, and should extend themselves to some other person. This kind of general advice-giving would seem to be of insufficient help to the lonely. We must begin to explore the efficacy of specific treatment approaches. Such research has been limited and has largely focussed on the comparison of complex treatment packages with no-treatment or supportive conditions (Gallup, 1980; Pittman, 1976; Shaul, 1981).

The current research effort investigated the comparative effectiveness of two basic elements of previous loneliness treatment packages: cognitive restructuring and social skill training. This was accomplished by the presentation of cognitive resructuring and social skill training to separate groups of lonely people. Two distinct treatment packages were devised corresponding to each of these therapy approaches and groups of lonely undergraduate women experienced one or the other so that the efficacy of the two could be compared. Interest was also focussed on the exploration of the relationship between particular subject characteristics and responses to treatment. Interest focussed on the matching of intervention strategy with the source of loneliness. As Rook (1984) suggested it is important to explore the role of subjective psychological evaluations of social relationships, versus objective relationship deficits in producing loneliness. In the first case, the focus of intervention efforts would be the modification of cognitive distortions that produce negative evaluation of social ties,

while in the latter case the focus would be upon the improvement of the quality of social relationships (e.g., by changing social skills).

Definition of Loneliness

The most commonly agreed upon definition of loneliness identifies two major characteristics of the experience (Peplau & Perlman, 1982). First, loneliness is an aversive experience. Second, research has indicated that loneliness is not synonymous with objective social isolation. It is more likely to reflect an individual's subjective evaluation of his or her social ties. Pursuant to that definition researchers have focussed on two issues: the search for social skill deficits associated with the feeling of loneliness and the exploration of the role of negative cognitive appraisals of social ties in producing loneliness.

The behaviours focussed upon in social skill training and the themes of the cognitive restructuring program were derived from the available literature examining the behavioural and cognitive correlates of loneliness. That literature will now be reviewed.

Social Skill Deficits

One of the major problems of social skill assessment involves the failure to produce consistent skill differences between known groups using self-report and self-monitoring assessment procedures (Arkowitz, 1981; Bellack, 1979). In the treatment of social anxiety particular social behaviours are often chosen almost arbitrarily by the researcher

who is then disconcerted when increasing the subjects' expertise on those responses fails to alleviate the social anxiety. In our investigation of the treatment of loneliness via social skill training, we must be careful to select only those behaviours that have been demonstrated to clearly differentiate the lonely from the nonlonely. Otherwise our treatments may successfully enhance the individuals' skill in performing behaviours that are irrelevant to their loneliness.

Fortunately, we do have some solid indications of the behaviours upon which the lonely and nonlonely can be reliably differentiated. Those social skills will each be discussed in turn and include: intimacy deficits, self-disclosure, self-monitoring ability, willingness to present personal opinions, personal attention responding, and topic continuation, and choice of coping strategy.

Intimacy Deficits. Assessments of the social relationships of lonely people have produced somewhat ambivalent results. On the one hand studies using self-report and diary methods have reported that college-age lonely people spend more time alone than with close friends and date less often than do nonlonely individuals (Jones, 1981; McCormack & Kahn, 1980; Russell, Peplau, & Cutrona, 1980). On the other hand, comparisons of the numbers of friendships reported by lonely and nonlonely people have produced conflicting results. Russell et. al. (1980) observed fewer friendships reported by lonely college students than nonlonely students. However, McCormack and Kahn (1980) found no such difference.

The results of a study by Williams and Solano (1983) provide a means by which to make sense of the similarities and differences in the social relationships of the lonely and nonlonely. The issue they addressed was whether lonely people simply lack relationships or whether they lack intimacy within their existing relationships. They examined the association between the social network questionnaire responses of undergraduates and their scores on the UCLA Loneliness Scale (Russell et al., 1980). No significant differences were detected between the number of casual friendships or close friendships reported by those high or low in loneliness. In contrast those who scored higher on the Loneliness Scale tended to rate the level of intimacy of their friendships as lower than did the nonlonely. These results suggest that it is not the absolute size of the social network which distinguishes the lonely from the nonlonely but rather the perceived quality of those relationships. The relative absence of intimacy in relationships is associated with the experience of loneliness.

These findings are consistent with those of the Jones' (1982) self-monitoring evaluation of the social interactions of college students. In that study a relationship was detected between loneliness and the proportion of interactions with strangers but not between loneliness and total number of interactions or average length of interactions. Lonely students reported more interactions with strangers and acquaintances and fewer with family and friends. If we may assume a continuum of intimacy of interactions such that interactions with family and friends would be likely to be more often intimate than those with strangers and acquain-

tances, the Jones (1982) results are consistent with those of Williams and Solano (1983). It seems to be the quality rather than the quantity of social interactions which is associated with loneliness.

The literature on the self-disclosure styles of the lonely provides further understanding of the social skill deficits which may contribute to the relative absence of intimacy in the relationships of the lonely.

Patterns of Self-Disclosure. Sermat and Smyth (1973) examined the statements made by 300 people asked to report on feeling lonely. They found that an important commonality in those reports was the attribution of loneliness to "the lack of opportunity to talk about personal, important private matters with someone else" (p. 332). Chelune, Sultan and Williams (1980) using a self-report measure observed that for female subjects loneliness was significantly associated with reluctance to self-disclose to others in hypothetical situations.

Solano, Batten, and Parish (1982) followed up on those studies of lonely peoples' self-perception by examining their actual self-disclosure patterns. Lonely and nonlonely college students engaged in a brief structured conversation with either a same-sex or opposite-sex partner. Subjects chose disclosure topics from among an experimenter-created list which had been scaled for degree of intimacy. The results indicated that lonely subjects were more likely to choose less intimate topics for opposite-sex partners than were nonlonely subjects. In addition lonely subjects tended to begin with a high intimacy topic when paired with a same-sex partner and a low intimacy topic when paired with an opposite-sex partner. This represents a reversal of the disclosure patterns of

the nonlonely. The authors concluded that the social interaction styles of lonely people may make it difficult for them to form intimate relationships. After one half hour of mutual disclosure, partners of lonely subjects did not feel that they knew them as well as did partners of non-lonely subjects. Lonely people tend to disclose personal information at inappropriate levels of intimacy and in so doing violate the rules of social interaction. That rule violation may have consequences for the social adjustment of the lonely. Cozby (1973) considered the literature with regard to self-disclosure and adjustment. He discovered that poorly adjusted people disclosed either too much or too little. Altman and Taylor (1973) theorized that a reciprocal exchange of personal information of gradually increasing intimacy is essential to the maintenance and deepening of friendships.

Of additional significance is the Solano, Batten, and Parish (1982) finding that lonely people were not sensitive to the lower levels of intimacy in their interactions. That their nonlonely partners were aware of the relatively lower intimacy level of the conversations was indicated by their reports that they did not know their lonely partner as well at the end of the conversation. The lonely subjects reported higher levels of familiarity at the end of those conversations. These authors concluded that lonely people may not perceive the lower intimacy levels of their early social interactions until their partner has become so dissatisfied as to disengage.

These conclusions are consistent with the research on the skill deficits of those individuals reporting severe social anxiety . Several

authors have concluded that the differences between the performance of the socially skilled and the socially unskilled may lie in their differing abilities to time their responses appropriately by carefully guaging the cues of the social interaction (Fischetti, Curran, & Wessberg, 1977; Peterson, Fischetti, Curran & Arland, 1981; Trower, 1980). It is important that the individual know how to gear his or her own behaviour to the cues emitted by the other person. This is what Trower (1980) has referred to as the "process" of social communication. It is not enough that the lonely person possesses the social responses involved in self-disclosure. It is also essential that the individual knows when and to what degree to disclose personal information.

Self-monitoring ability. Laboratory and field research has clearly indicated that important information about an individual's emotions and attitudes, including messages of intimacy, cooperation and competition are communicated through nonverbal channels (Ekman, 1971; Ekman & Friesen, 1969; 1972). Some researchers have argued that the ability to convey and accurately receive expressive messages is an essential component of effective interpersonal functioning. Individuals seem to vary in their ability to monitor self-presentation, expressive behaviour and nonverbal affective display. Trower (1980) discovered that high socially anxious males were less responsive to the nonverbal cues emitted by their interaction partners than were low socially anxious males.

The relevance of this research to the treatment of loneliness is supported by the results of a study conducted by Gersen and Perlman (1979). That investigation demonstrated that lonely students were less accurate encoders of nonverbal information.

Expression of Personal Opinions. Related to the tendency for lonely people to violate normative expectations of self-disclosure are the Hanson and Jones (1981) results concerning expression of personal opinions. These authors reported that lonely students were less confident of their opinions on controversial topics and were less willing to make those opinions available to others. The sharing of opinions represents one element of the process of establishing human interaction by means of obtaining feedback. Hanson and Jones (1981) "concluded that, by a reluctance to check out their opinions, lonely people deny themselves the opportunity to guage the social acceptability of their ideas."

Personal Attention Responses. The majority of the remaining target responses included in the social skill training program were based upon the research of Jones and his associates (1982). Jones, Hobbs, and Hockenbury (1982) found that the interaction behaviours of lonely and nonlonely college students differed as follows: (1) lonely students made significantly fewer "other" references, (2) asked fewer questions of their partner than did the nonlonely students, and (3) lonely students failed to continue the topic of conversation significantly more often than did the non-lonely students. The social skill training program included conversational training encompassing all of these responses.

Coping Strategies. Rubenstein and Shaver (1982a, 1982b) considered the strategies most commonly used in attempting to overcome loneliness. They established that active strategies such as initiating social contacts, calling friends, joining new social groups were characteristic of those people who reported that loneliness was not a problem. The more chronically lonely reported more frequent use of such passive strategies as watching television, overeating, drinking, using drugs or sleeping.

In a follow-up study, Shaver, Furman, and Buhrmester (1985, pp. 193-219) reported a positive correlation between chronic loneliness, low self-ratings of social skill, self-blaming attributions for loneliness, and the use of passive coping strategies. They concluded that those people who rate themselves as lacking social skill attribute their loneliness to lack of skill, anticipate failure and do not choose to initiate interactions. Instead those people resort to sad passivity including watching television, eating or drinking. The continued use of passive coping strategies would perpetuate loneliness. A significant negative correlation was observed between loneliness and the use of active coping strategies. Those individuals who reported more frequent use of social interaction initiation as a coping strategy, tended to be less lonely. It would be important to teach effective active coping strategies in order to assist the individual in overcoming his or her loneliness.

Cognitive Distortions and Loneliness

Loneliness has been linked to a lack of assertiveness, self-consciousness, inhibited sociability, and excessive self-focussing (Horowitz & French, 1979; Goswick & Jones, 1981; Jones, Freeman & Goswick, 1981; Peplau & Perlman, 1982). At the same time evidence has accumulated to suggest that loneliness is more closely associated with dissatisfaction with the quality of relationships than it is with an absence of sufficient numbers of social opportunities. Jones, Freeman, and Goswick (1981) point out that people may feel lonely even when they are surrounded by opportunities for interaction. They argue that this is particularly true of lonely college students who by objective standards

would appear to be surrounded by a wealth of potential friendships. They suggested that the cognitions and emotions associated with loneliness may interfere with the individual's ability to make use of existing social skills.

The logic of that hypothesis is based upon the research concerning the cognitive and affective correlates of loneliness and the impact of those correlates upon interpersonal relations.

Self-Esteem. One of the most frequently reported correlates of loneliness is low self-esteem. Loucks (1980) demonstrated an association between loneliness and low self-esteem as measured by the Tennessee Self-Concept Scale (Fitts, 1965). Likewise Goswick and Jones (1981) noted a relationship between loneliness and negative perceptions of one's body, sexuality, health and appearance. Loneliness was also significantly associated with a lowered sense of adequacy in social situations. In addition, Goswick and Jones (1981) reported that lonely subjects tended to report focussing their attention on their own reactions rather than on those of others during various social situations.

The tendency of the lonely to impose pessimistic expectations upon their social interactions has been documented repeatedly (Brennan & Auslander, 1979; Jones, Freeman & Goswick, 1981; Jones, Hansson, & Smith, 1980; Jones, Sansone, & Helm, 1983; Goswick & Jones, 1981). That negativity has been demonstrated to encompass not only attitudes towards self, but also attitudes towards those with whom the lonely interact. Jones et al. (1981) demonstrated a tendency for the lonely to rate their conversation partners more negatively than did the nonlonely. Lonely

people seem to engage in self and other derogation. Those authors suggested that the negative interpersonal attitudes of the lonely in conjunction with their tendency to be more self-focussed might mean that lonely people would ignore positive feedback concerning their own behaviour or appearance. The end result of such interference would be the neglect of information which would disconfirm the negative self-image of the lonely person. The direction of the relationship with loneliness is not clear. The lonely person may experience an absence of reinforcement from his or her environment due to inadequacies of social skill. As a consequence, he or she may begin to devalue him or herself. Alternatively, lonely people may fail to perceive instances of social reinforcement. The intense self-focus of the lonely may lead to an oversensitivity to rejecting behaviour from others (Weiss, 1973). The cognitions and emotions associated with loneliness may disrupt attempts to establish intimate relationships.

The evidence that lonely people rate their interaction partners negatively is interesting in light of the informal remedies for loneliness. Advising the lonely to get out and meet people, flies in the face of the research evidence pointing to the inadequacies of coping ability and the significant attitudinal deficits associated with loneliness. Before they are likely to be able to initiate satisfying interactions lonely people must expand their social skill repertoire and must correct cognitive distortions. If loneliness involves the rejection of others (perhaps as a self-protective measure) it will also be necessary to work directly at alleviating those negative attitudes toward others so that

the individual will continue to maximize interpersonal opportunities (Jones, 1982).

Attributional Style of the Lonely. Peplau, Russell, and Heim (1979) postulated that lonely people tend to attribute social failure to stable, internal factors (e.g. character, lack of ability) while they are more likely to attribute social successes to external unstable factors (e.g. luck, the situation). The results of two studies (Anderson, Horowitz & French, 1983; Horowitz, French & Anderson, 1982) supported the Peplau et al. (1979) hypothesis. A significant correlation was observed between scores on the UCLA Loneliness Scale and attribution of interpersonal failure to stable deficits in self (ability). This model of loneliness suggests that people who attribute interpersonal failures to lack of ability become easily discouraged when they encounter difficulties and then might tend to give up readily. Modification of those faulty attributions would be essential in the treatment of loneliness.

Cutrona (1982) also recommended an increase in the attention paid to the interpersonal attitudes and self-concepts of the lonely. Her research indicated that the major distinguishing feature of those students who overcome loneliness and those who do not was initial attitudes concerning social relationships. Those who remained lonely began the school year with a much more pessimistic attitude over the possibility of overcoming loneliness. These students tended to blame stable personality characteristics for their loneliness, while those who got over loneliness began the year blaming a wide variety of situational and personal factors. Cutrona recommended treatment aimed at modification of

dysfunctional cognitions concerning causes of loneliness.

Young (1982) described several constellations of distorted cognitions which he hypothesized were associated with loneliness and which hindered the individual's ability to take action to reduce loneliness. For example, he discussed the "low self-concept" cognitions which included such self-statements as "I'm boring - no one would want to get to know me." The consequence of such thinking would be an avoidance of social interactions. Young (1982) argued that while the individual holds those thoughts he or she would be unlikely to initate social contacts.

The cognitive restructuring program of the current investigation was devised to address those negative self-statements associated with loneliness. If inadequate social skill is less important to the maintenance of loneliness in a college student population, treatment which corrects self-deprecatory cognitions would be sufficient to produce reductions in measured loneliness.

Typologies of Loneliness

As noted earlier a common definition of the general experience of loneliness has been achieved (Peplau & Perlman, 1982). Nevertheless, disagreements exist concerning the relevance of drawing distinctions between types of loneliness. Some argue that it is meaningless to form such typologies and contend that the common core experience of loneliness unites those who are lonely for greatly varying reasons. In contrast others focus upon the differences between the experiences of populations of lonely people. Through an examination of the literature a common

theme was pinpointed in the majority of typologies of loneliness. That was an emphasis on the length of time an individual had been lonely and a distinction based upon the severity of cognitive and social skill deficits.

Rook and Peplau (1982) remarked upon the distinction to be made between those individuals who experience loneliness as a result of disruptive life changes such as separation, divorce or widowhood and those whose loneliness is a lifelong problem. Two other sets of researchers differentiated loneliness on much the same basis. Young (1982) distinguished three types of loneliness. Transient loneliness refers to occasional spells of feeling lonely. Situational loneliness is a product of specific environmental precipitating events. For example, divorce, bereavement, or a recent move may cause sufficient disruption of an individual's social relationships and self-concept as to result in loneliness. Finally, Young identified chronic loneliness to refer to the experience of those individuals who have lacked satisfactory social relationships for a period of at least two years.

Cutrona (1982) conducted a longitudinal study of loneliness in college students. She observed that first year students who identified themselves as lonely in the fall were experiencing situational loneliness brought on by the transition to college. The 20% of college students sampled who remained lonely represented the chronically lonely of Young's typology. Cutrona (1982) reported that the students who remained lonely all year (1) were clearly more pessimistic at the outset of the school year concerning their future levels of social interactions and (2) were

more likely to attribute their loneliness to personal (internal) rather than situational (external) causes. These "chronically" lonely students attributed their loneliness to shyness, fear of rejection, lack of knowledge of how to initiate relationships, and their overall personalities more frequently than did those students who were no longer lonely by the end of the school year. The latter group blamed a greater variety of situational variables for their loneliness.

Peplau, Russell and Heim (1979) speculated that as loneliness persists over time the lonely person begins to blame him or herself for the social failure. Shaver, Furman, Buhrmester and Williams (1981) chose to label as trait lonely the freshmen in the Cutrona study who remained lonely all year and who exhibited self-defeating pessimistic causal attribution patterns. Those who were lonely at the beginning of the school year but who overcame loneliness, Shaver et al. (1981) relabelled state lonely. These two types of loneliness (trait and state) can be seen to correspond to the Young (1982) categories of chronic and situational loneliness.

Shaver, Furman, and Buhrmester (1985) followed up on the state versus trait distinction in a study of the 1980-81 freshman class of the University of Denver. Just before and just after each of the academic quarters students were given questionnaires assessing state and trait loneliness, family background, dating history, current friendships, self-reports of social skill, attribution patterns, and coping styles. As discussed in Shaver et al. (1985), a significant correlation was observed between type of attribution made for social successes and

failures and state and trait loneliness. Trait loneliness scores were correlated positively with the attribution of interpersonal failures to "ability". Interpersonal success tended to be attributed to luck by the trait lonely. Those who rated themselves as socially skilled tended not to be trait lonely and not to make self-deprecating attributions; they also tended to prefer active coping strategies. Shaver et al. (1985) went so far as to suggest that research which has demonstrated social skill deficits associated with loneliness may have been influenced by the presence of a trait (chronic) lonely minority. They contended that the majority sampled will be state (situationally) lonely and will be feeling temporarily lonely and discouraged with their personal relationships.

Treatment Implications of the Situational versus Chronic Loneliness Distinction

It was hypothesized that cognitive and social skill differences between the situationally (state) and chronically (trait) lonely would have implications for chosen treatment strategies. Specifically it was predicted that the chronically (trait) lonely would benefit most from treatment aimed at alleviating their inadequate coping skills. The rational for that hypothesis was that the pessimistic attitudes of these lonely people were the result of non-reinforcing interactions with the social environment. Inadequate coping skills predispose those chronic lonelies to social failure. Over time they blame themselves for that lack of success. Training of appropriate interpersonal behaviour was predicted to be essential to alleviation of chronic loneliness. In

contrast, those who report situational loneliness are more likely to require encouragement to maintain an optimistic attitude towards their prospects for social interaction. It was hypothesized that they are less likely to require intensive social skill training and more likely to benefit from cognitive therapy aimed at modification of mood disturbance and misinterpretations of social opportunities.

The initial goal was to distinguish those two groups (chronic and situational) of lonely individuals and then to examine their differential response to the two treatments. However, difficulties were encountered in the process of forming two nonoverlapping groups of subjects on the basis of correlated variables. Those difficulties will be discussed in detail in the following two chapters. When no distinct types of lonely women could be created to randomly assign to treatment conditions, the decision was made to pursue subject to treatment matching variables. Congruent with the original hypothesis: (1) a relationship was predicted between self-rating of perceived social skill at pretreatment and superior response to social skill training and (2) a relationship was anticipated between excessively self-critical attitude at pretreatment and superior response to cognitive restructuring. In that fashion it was possible to explore the role of social skill deficit versus maladaptive cognitions in the perpetuation of loneliness (Rook, 1984). If an absence of skill in the performance of certain social behaviours is crucial in maintaining loneliness, social skill training would demonstrate superiority in the reduction of loneliness. If distorted interpretations of social interactions played the primary role in maintaining loneliness

in a group of college students, the cognitive restructuring program would be more effective in reducing loneliness.

Spontaneous Changes in Loneliness Over Time

The transition to university has been identified as a time of social network disruption. The first-year university student is often required not only to form new social relationships as old friends are left behind but must also transform existing relationships with family and old friends (Shaver, Furman & Buhrmester, 1985). A significant implication of those changes in friendship and intimate relationships is the experience of loneliness. The two major longitudinal studies of loneliness in the freshmen population (Cutrona, 1982; Shaver et al., 1985) both discovered that the students tended to be very lonely in the fall and that the majority of students (approximately 80%) were no longer lonely in the spring.

Shaver et al. (1985) observed correlations between changes in levels of state and trait loneliness at semester intervals throughout the academic year. They observed a significant correlation between the rating of peer network satisfaction and the level of state loneliness. As the individuals' satisfaction with their peer relationships declined in the fall, their state loneliness intensified. By spring, network satisfaction had increased and state loneliness had decreased. The students reported forming new casual acquaintanceships rapidly and as those new relationships were stabilized, loneliness declined.

Those authors argued that sampling from a population of first-year university students would always net a majority of state as opposed to

trait lonely individuals who would demonstrate a predictable decline in loneliness over time as they form satisfying casual friendships. In the Shaver et al. study (1985) the minority of students who reported feeling significantly lonely throughout the school year demonstrated a unique pattern of responses to attribution, coping style and perceived social skill measures (Cutrona, 1982; Shaver et al., 1985). A strong correlation was reported between trait loneliness and negative social skill self- assessment, use of less active coping methods and self-blame.

Any treatment program which purports to alleviate loneliness in a college-student population must demonstrate decreases in loneliness which significantly exceed that which would be expected due to the use of natural coping methods over time.

Loneliness Therapy Outcome Research

The loneliness treatment outcome studies conducted to date have largely been doctoral dissertation projects. In a dissertation at the University of Georgia, Pittman (1976) compared the effectiveness of three group therapy approaches in reducing loneliness among college students. The three treatments included: (1) an action-oriented approach involving psychodrama and behavioural rehearsal; (2) a traditional approach, focussing on individual psychotherapy administered in a group setting; and (3) an interpersonal-interactional approach, offering a supportive mileu for interpersonal communication. Each of the three groups ran for a nine-week period with post-testing one week later. No one group treatment approach was significantly more effective than another.

However, all three successfully brought about significant pre to post-treatment changes on the dependent variables measuring behaviours and attitudes associated with loneliness. In the face of these findings, Pittman concluded that the interpersonal-interaction group was most efficient since it required less training on the part of the leader. In other words, Pittman (1976) found a supportive therapy control condition to be as effective as either of his active treatment conditions.

Shaul (1981) sought to address the Pittman (1976) results. She compared the effectiveness of supportive group therapy, group-administered cognitive behavioural treatment, and delayed-treatment control conditions in the alleviation of loneliness among adult volunteers. Shaul demonstrated strong support for the effectiveness of both of her active group therapy strategies compared to a delayed treatment control condition. However, she was unable to detect any significant differences in the effectiveness of the supportive and cognitive-behavioural approaches. Shaul did note a trend toward the superior effectiveness of the latter approach. She also stressed that the absence of significant differences between the two treatment approaches may have been due to methodological weaknesses in her study. The two treatment approaches may not have been sufficiently distinct to permit a comparison of differential efficacy. Alternatively, the degree of subject attrition which resulted in a large reduction in the number of subjects may have decreased the chances of detecting between group differences.

In a novel investigation of a modified self-help approach, Lars Andersson (1985) considered the effectiveness of brief group meetings in

alleviating loneliness in elderly women. The women were obtained through sampling the waiting list for admission to Stockholm senior citizen apartments. At pre-test the women were interviewed by one of five social workers. Those who self-labelled as lonely were randomly assigned to intervention or control. The intervention consisted of four group meetings of three or four women from the same neighbourhood. One of the social workers was present at two of the four meetings for each group. Each session was devoted to discussion of a relevant issue (ie., the residential area, role of the retiree, social and medical services, and opportunities for leisure activities). The meetings were aimed at the development of a sense of personal control and the provision of the opportunity for the development of confidant relationships. The women were re-interviewed six months after participation in the study. Results indicated that those who had taken part in the groups were less lonely, had less feelings of meaninglessness, reported more social contacts and higher self-esteem at the six month interval. The results warranted the conclusion of a treatment effect. However the observed improvements in mood and social activity were not accompanied by change in the three factors which Andersson had hypothesized to underly the intervention strategy. No significant improvements were observed in self-reported level of personal control or the availability of a confidant. There was only minimally significant improvement in social comparison level. Strongly significant correlations were reported between all three indicators and degree of loneliness. The absence of change on the indicators in concert with change in loneliness was attributed to

weaknesses in the operationalization of the concepts. However the results did confirm that four meetings with neighbourhood peers contributed to significant reductions in loneliness in that elderly population. The mechanism by which change was produced could not be fully clarified. The author did argue that the emotional well being of the elderly is more dependent upon the availability of a companion upon whom one may rely for help than it is upon the presence of a confidant.

In a previous section a paper by Jones, Hobbs, and Hockenbury (1982) concerning skill differences between the lonely and non-lonely was discussed. Those authors based a social skill training program for loneliness on the results of the earlier observational study of skill deficits among lonely people. Subjects who had been randomly assigned to the skills training condition received two, 1.5 hour sessions of training in "personal attention" responding. This class of response was defined to include reference to the other person in the conversation or to that person's attitudes, opinions, experiences, or activities. Post-treatment assessment indicated a reduction in perceived loneliness on the parts of subjects who had received this program of skill training. Results indicated that increased use of personal attention responses during dyadic interactions led to significantly greater change in loneliness scores compared to the interaction only and no-contact control group.

Gallup (1980) made use of social skill training administered in group format. In keeping with the findings of Jones et al. (1982), subjects received training in the following social skills: active listening, extending invitations, information on how to plan social

activities, giving and receiving compliments, and handling difficult social situations such as having an invitation turned down. In addition to these strictly behavioural treatment components, Gallup also included such cognitive restructuring techniques as refuting irrational thoughts, self-confidence boosting and strength bombardment (a procedure involving mutual complimenting by group members). The main assessment instrument of the Gallup study was the Belcher Extended Loneliness Scale (BELS) (Belcher, 1973). Results indicated that the social skill training program contributed to significant reductions in loneliness as measured by the BELS. The Gallup study demonstrated that group administered social skill training can successfully reduce loneliness in college students (as tapped by a self-report scale).

However, as did the Shaul study, this research had limitations. Most crucial of these for the purposes of the proposed investigation was the insertion by Gallup of a cognitive restructuring technique into his training package. It is impossible to distinguish the relative contributions of the social skill training and cognitive restructuring elements of the Gallup treatment program. Yet, it seems that this is the issue of particular interest at this stage of outcome investigations of the treatment of loneliness. Shaul (1981) and Gallup (1980) have demonstrated that various social skill training and cognitive therapy techniques can contribute to significant reductions in loneliness. Now we must begin to explore the relative contributions of each of these approaches to loneliness therapy. It is that issue which was the major concern in the proposed investigation. Also of interest was the

exploration of possible treatment and client matching variable. The relative effectiveness of social skill training and cognitive restructuring in reducing the loneliness of those who report low social skill or significantly negative expectation of social evaluations was examined. In the following sections of this chapter the two treatment approaches that were used in the study will be discussed in general terms.

Two Types of Therapy

Social Skill Training

Goldsmith and McFall (1975) described social skill training as:

> A general therapy approach aimed at increasing performance competence in critical life situations. In contrast to the therapies aimed primarily at the elimination of maladaptive behavior, skills training emphasize the positive educational aspects of treatment ... when an individual's best effort is judged to be maladaptive, this indicates the presence of a situation specific skill deficit ... it often may be overcome ... through appropriate training in more skillful response alternatives. (p. 51)

This represents the basic philosophy of skill training. Curran (1979) has presented the specifics of this form of treatment.

> Social skill training is a variety of techniques including behavioral rehearsal, the use of prompts, modeling, instructions, feedback, reinforcement, self-monitoring procedures, and in vivo practice (p. 326).

Recently, the application of social skill training to the treatment of loneliness has received attention. The proposed study explored the contributions of social skill training to the alleviation of loneliness

via multi-modal assessment including self-report, self-monitoring and behavioural observation measures. In addition to self-report outcome measures, the success of this treatment approach was assessed at post-treatment via direct observation of the subjects' performance on all five response classes during videotaped recording of nine minute conversations between dyads of group members. The following behaviours were focussed upon in the social skill training package: (1) self-disclosure; (2) personal attention responding; (3) expressing personal opinions; (4) giving and receiving feedback; (5) active listening and paraphrasing, including an emphasis on eye contact and attentive body posture; and (6) extending invitations.

Cognitive Restructuring

Cutrona's (1982) results indicated that for college students, dissatisfaction with social relationships predicted loneliness scores more adequately than did measures of frequency of contact, number of friends, dating frequency, etc. The important issue may not be the amount of contact per se but rather the perceived quality of that contact. Lonely people seem to need assistance in learning to perceive and evaluate their interpersonal environment more positively.

This was the goal of the cognitive restructuring program of the proposed treatment study. The premise of this approach was that causal attributions of loneliness can influence the individual's motivation to improve his/her social life. The major distinction made was between the sense of personal control over a problem and the sense of being irrevokecably at fault for that problem.

The individual who blames his or her own personality (characterological self-blame) for social failure is more likely to report severe loneliness (Shaver et al., 1985). As has already been noted, a negative correlation has been reported between that characterological self-blame for loneliness and the choice of active coping strategies. Those individuals who attribute their loneliness to inadequacies of their personality, are less likely to report the use of active social interaction as a means of alleviating loneliness. The Shaver et al. (1985) findings relate to the Janoff-Bulman (1979) distinction between behavioral self-blame and characterological self-blame. Those lonely individuals in the Shaver et al. (1985) investigation who blamed social failures on personal inadequacies were engaging in characterological self-blame. Janoff-Bulman (1979) observed that depressed female college students engaged in more characterological self-blame than did non-depressed female college students, whereas behavioral self-blame did not differ between the two groups. Janoff-Bulman discussed behavioral self-blame (blaming failure on lack of effort or poor choice of strategy) as adaptive and control-oriented. She described characterological self-blame (blaming failure on inadequate personality) as esteem-related and maladaptive. The goal of cognitive restructuring would be to reduce the tendency of the lonely women to blame social failures upon personality defects (characterological self-blame) and to enhance their capacity to accept behavioral responsibility for their social failures (making effort attributions).

A slight inconsistency was detected between the predictions of the Shaver et al. (1985) and the Janoff-Bulman (1979) studies when attributions for social successes were considered. The Shaver et al. (1985)

findings suggested that ability (characterological) attributions for social success would be associated with decreased loneliness. In contrast the Janoff-Bulman (1979) typology would seem to suggest that behavioural attributions would be the most adaptive response to successful social interactions. The individual who attributes success to effort is seen by Janoff-Bulman as assuming control over the consequences of his or her interactions. The response of the women receiving cognitive restructuring therapy was expected to shed light upon the association between reductions in loneliness and attributions made for social successes and failures.

The relevance of cognitive restructuring techniques in the treatment of social anxiety has recently begun to generate a great deal of discussion. Bellack (1979) has been critical of work in social skill training because it has tended to focus on behavioural output variables exclusively. Morrison and Bellack (1980) stressed the need to assess the individual's social perception abilities. These include awareness of significant social norms and response cues, ability to attend to relevant aspects of the interpersonal situation, information-processing ability and the ability to accurately predict and evaluate response consequences. There may be a relationship between the dysfunctional cognitive activities of certain of the lonely and this notion of "social perception ability." Perhaps those people who remain lonely fail to accurately assess the potential social consequences of their attempts to initiate social interaction due to the interference of maladaptive cognitions (Rook, 1984).

In treatment research concerning social anxiety a number of studies (Glass, 1974; Glass, Gottman, & Schmurak, 1976) found that cognitive

modeling therapy in the form of the alteration of self-statements was most effective in reducing nonassertiveness and enhancing dating skills in girl-shy college males. The cognitive self-statement modification caused the greatest transfer of training effect to untrained, laboratory, role-playing situations and to ratings made by females whom the subjects called for dates. In the Glass and Schmurak studies, subjects were trained to identify their negative self-statements and to use that recognition as a signal to produce incompatible, rational self-statements.

The Glass et al. (1976) findings have stimulated further research in the area of social anxiety. The findings of that subsequent research are relevant to the treatment of loneliness. Gormally, Sipps, Raphael, Edwin, and Varvil-Weld (1981) found that high socially anxious college men endorsed significantly more irrational beliefs and perceived social overtures as more risky than did low socially anxious males. Maladaptive cognitions were linked to social anxiety in heterosocial situations. Also related to the issue of cognitive targets in the treatment of social anxiety are the results of a Perri and Richards (1977) study which indicated that students who were successful in increasing their dating reported significantly greater expectations of success and made significantly greater use of self-reward, stimulus control and problem-solving procedures.

These results seem to be readily connected with those of several authors in the area of loneliness that have already been mentioned. The extensive literature pointing to the relationship between negative self-concept and pessimistic social attitudes and loneliness, suggested that cognitive restructuring would play a crucial role in the treatment of

loneliness. Especially in the case of those lonely people who focussed excessively on feared negative social evaluation, the cognitive treatment was expected to bring about significant reductions in loneliness.

Beneath the rubric "cognitive restructuring" are included several procedures of cognitive behaviour therapy. All of the therapies within this category share the assumption that emotional disorders are based at least in part upon maladaptive thought patterns. These faulty thought patterns are said to derive from inaccurate or distorted interpretations of the world. The emphasis of therapy is upon the identification of those self-defeating cognitions and upon replacing them with more adaptive interpretations.

Ellis (1970) listed twelve irrational assumptions that he felt to be cause of most emotional disturbance. According to Ellis, these self-statements serve to catastrophize a negative event. They are automatic and pervasive in their influence. His "rational emotive therapy" (RET) consists of helping the client to pinpoint these irrational thoughts and to substitute more constructive, rational ones. Gallup (1980) made brief use of procedures of RET during one session of his social skill training program for loneliness. However, since this cognitive element of his treatment approach represented such a small proportion of the total therapy time, it was not possible to draw any conclusions with regard to its role in alleviating loneliness.

The current study made use of Beck's (1976) cognitive therapy approach. The major difference between these two approaches is that unlike Ellis, Beck has not chosen to compose a list of the cardinal

irrational thoughts. His approach is more attuned to the idiosyncratic thought patterns of each client. Cognitive therapy passes through four phases on the road to its major goal the development of rational thought patterns. These include:

a) clients become aware of their automatic thoughts
b) they learn to identify inaccurate or distorted thoughts
c) these inaccurate thoughts are replaced by accurate, more objective cognitions;
d) therapist feedback & reinforcement is a necessary part of this process (Wilson & O'Leary, 1980, p. 262).

Young (1982) has developed a cognitive approach to the treatment of loneliness derived from the techniques of Beck (1976). In the process of working with the chronically lonely, Young has identifed several "clusters" of thoughts, behaviours and emotions differentiated in terms of the kind of relationship deficits experienced. The cognitive restructuring program of the current study made use of Young's recommendations concerning the treatment of individuals experiencing the maladaptive cognitions and emotions associated with several of his loneliness clusters. These clusters or constellations of negative thoughts and emotions are also related by Young to a hierarchy of relationship formation, so that particular clusters of negative thoughts are associated with failure experiences at specific points in the relationship hierarchy. This hierarchy includes the following six stages: (1) spending time alone comfortably; (2) engaging in activities with a few casual

friends; (3) engaging in mutual self-disclosure with a trustworthy friend; (4) meeting a potentially intimate, appropriate partner; (5) beginning to develop intimacy through disclosure and sexual contact and (6) making an emotional committment. The loneliness clusters represent the specific negative thoughts experienced by the lonely that contribute to their failure to achieve success in any one stage. The current study was able to retrieve information of heuristic value from Young's conceptualizations. The cognitive restructuring program sought to refute the irrational, destructive thoughts Young has pointed out to be associated particularly with failure experiences in any of the first three stages of the hierarchy. Each group session focussed upon a particular theme of irrational self-statements identified by Young. In this fashion it was possible to work on the pessimism, low self-esteem, mistrust of others, feeling of powerlessness and self-blame that have been linked to the experience of loneliness.

Hypotheses

1) All subjects, regardless of assigned condition were expected to demonstrate significant reductions in loneliness and depression.

2a) In contrast to the waiting list control condition, both of the active treatment conditions were expected to result in greater reductions in loneliness and depression, and greater increases in self-esteem.

b) In addition, both treatments were expected to produce increases in frequency of social contact (particularly with friends and family), and in the rated intimacy level of social contacts.

3) The lonely subjects assigned to the treatment groups were expected to demonstrate more significant change in attributional style than were the waiting list control subjects. Specifically, treatment subjects were expected to reveal a movement away from external, situational attributions of success to internal ability and effort explanations. The treatment subjects were also expected to reveal a change from ability (characterological) explanations of social failures to effort and situational attributions.

4) A greater increase in the frequency with which active coping strategies were used was expected in the treatment groups as opposed to the waiting list control.

5) More significant improvement on the social skill measures (both self-report and videotaped data) was expected from those individuals assigned to social skill training.

6) Those lonely subjects who received cognitive restructuring were expected to demonstrate greater increases in self-monitoring ability, greater reductions in fear of negative evaluation and greater changes in attributional style than were those assigned to social skill training.

7) Differences in the effectiveness of the two treatment conditions were expected as a function of pre-treatment scores on measures of perceived social skill and fear of negative social evaluation. The social skill training program would benefit most those with more severe social skill deficits. In contrast, the cognitive restructuring program would benefit most those who focussed upon negative affect and cognitions concerning social situations.

CHAPTER TWO

Method

Initial Screening Process

Beginning in January, 1983 a series of questionnaires were administered to the population of female undergraduates enrolled in introductory psychology. The goal of that process was the isolation of two distinct groups of lonely females corresponding to Young's chronic and situational lonelies. The items selected to attempt to make that distinction were based upon Young's (1982) elaboration of the cognitive model of loneliness. Although he noted that chronicity of loneliness is primarily a time dimension, he went on to hypothesize cognitions and behaviours which might be more frequently observed among the chronically lonely. Specifically, he predicted greater social anxiety and negative interpretations of social reality. The chronically lonely would be more likely to blame inadequacies of personality and ability for their loneliness than they would effort or changeable environmental variables. In contrast, the situationally lonely would be more likely to attend to specific external events which may have precipitated their loneliness and which might be changed. They would also report having been lonely for a shorter period of time. For present purposes only a brief summary of the screening procedure will be provided. A more detailed presentation of the results will be provided in the results chapter.

A brief (10 item) questionnaire was administered to a group of 186 female undergraduates in conjunction with the UCLA Loneliness Scale. A copy of that initial questionnaire is available in Appendix A. When the results of that first screening process failed to produce distinct groups

of lonely women, a second group of 141 undergraduate women were administered a more extensive series of items (see Appendix B). Those items were added in order to enhance sensitivity to potential differences among the lonely on a time dimension as well as on measures of attributional style. In addition, the Young (1982) measure of chronicity of loneliness was administered. That measure included 18 items designed to assess the availability of social supports to meet various personal needs. Each item was answered on a scale of zero to three where high scores indicated a several year period during which that particular kind of social support had been unavailable. Some evidence exists to suggest that high scores on the Young questionnaire are associated with greater deprivation of intimate relationships (Young, 1979). The results of the cluster analysis performed on the questionnaire responses of that second group of women also failed to provide groups of subjects distinguishable on the basis of the dimension of chronicity of loneliness. As a consequence, the decision was made to collect pretreatment information on two subject variables which might predict differential response to the two treatment programs. The choice of a measure of perceived social skill and of fear of negative social evaluation came out of an interest in the implications of inadequate social skill and cognitive distortions in the persistence of loneliness (Rook, 1984).

Design of the Final Investigation

The final study involved a 3x3x3 repeated measures multivariate analysis of variance design. The between-subject factors were therapist

(with three levels) and treatment condition (social skill training, cognitive restructuring and waiting list control). The therapist factor was included to indicate the influence of therapist qualities upon outcome. The repeated measures factor was the scores of subjects on the dependent measures at pre-treatment, immediately post-treatment, and follow-up assessments.

In two of the analyses an additional independent variable was included. In one, the subjects' scores on the measure of perceived social skill at pre-treatment were used as a between-subject factor with four levels. The scores at pre-treatment on the five social skill dimensions were averaged and the four factor levels were composed by dividing the distribution of those scores into quarters. The goal of inclusion of that additional between-subject factor was to examine the relationship between initial perceived social skill and responsiveness to social skill training versus cognitive restructuring.

In the second such analysis the additional between-subject factor was the initial score on the Fear of Negative Evaluation Scale. The distribution of subjects' scores on that scale at pretreatment was divided into thirds to form high, medium and low categories on the factor. Differences in response to cognitive restructuring versus social skill training were anticipated as a function of the level of that factor in which subjects fell.

Three classes of dependent measures were included. The self-report dependent measures included: the UCLA Loneliness Scale, the CES-D Depression Scale, the Rosenberg Self-Esteem Scale, Self-Monitoring Scale, Fear of Negative Evaluation, Reactions to Social Situations, an attribution measure and a coping style measure. In addition, social

activities were assessed via interaction diaries. Finally, the following responses were coded from videotaped role plays: personal attention responding, personal opinion expression, topic continuation, eye contact, total number of utterances and total time talked.

Subjects who had been classed as lonely on the basis of their UCLA loneliness scale scores were offered a loneliness treatment program. Those who agreed to take part in the program were randomly assigned to one of the treatment conditions. They were required to take part in an initial pre-treatment assessment session and then experienced the treatment program for the ensuing nine weeks. At the conclusion of the last treatment session, all subjects completed the dependent measures. At that point they were reminded of their commitment to take part in the three month follow-up assessment session entailing completion of the self-report and diary measures. In return for fulfillment of the contractual agreement, subjects received a monetary reward of five dollars.

Subjects

The proposed study was concerned with the treatment of loneliness among female college students. That population was focussed upon for two reasons: (1) Females tend to be more reliable subjects. They less frequently fail to appear for sessions. (2) The research conducted by McCormack and Kahn (1980) had pointed to the association between greater time spent with female friends and low loneliness scores. This was observed to be true for both males and females. For both of those reasons the focus of the study was upon the development of same-sex

friendship making skills in women.

The study was conducted during the winter term of the 1983-1984 academic year and during the fall of the 1984-1985 academic year. It was necessary to conduct the investigation during two school years because numbers of lonely females identified in January 1984 were insufficient to complete the cells of the design. The mean score on the UCLA scale of the population of females sampled in January 1984 was 38.8. The mean of the population sampled in September of 1984 was 41. At both points in time the upper 25% of the distribution were approached to participate in the study. In January 1984 that meant that the UCLA Scale scores of those approached ranged from 43 to 71 (out of a possible of 80). In September 1984 the range of scores of those recontacted was 43 to 69 (out of a possible total score of 80). The level of self-perceived loneliness of the two groups of undergraduate women was very comparable. At the time of recontact, the subjects were offered participation in a study which was aimed at assisting them in important social situations ranging from initiating casual social interactions to deepening casual relationships. They were guaranteed partial credit in their introductory psychology course in return for their participation but were reminded that the nine, 90 minute sessions exceeded by 6.5 hours the time required for the course credit. The refusal rate of those contacted was 15%. Those who took part were clearly motivated by an interest in the content of the groups and the opportunity to take part in sessions with a group of other women.

A total of 132 women agreed to participate in the study. Of that

132, 108 completed the study to follow-up. Of that 108, 38 had been randomly assigned to waiting list control, 35 to the social skill training condition, and 35 to the cognitive restructuring condition. Six of the treatment subjects chose to drop out (five in cognitive restructuring and one in social skill training), and ten were dropped due to incomplete data (four in cognitive restructuring and six in social skill training). Eight of the control subjects dropped out before follow-up. For purposes of analysis, there were 38 waiting list control subjects, 35 social skill training subjects, and 35 cognitive restructuring subjects. The 70 treatment condition subjects were randomly assigned to form eight therapy groups, four social skill training and four cognitive restructuring.

Measurement of the Dependent Variables

Self-Report Measures.

At pre-treatment assessment (one week prior to the onset of therapy), at post-treatment assessment (at the conclusion of the last therapy session) and at three month follow-up assessment, the following questionnaires were completed by all subjects.

UCLA Loneliness Scale. The revised UCLA Loneliness Scale was designed by Russell, Peplau, and Cutrona (1980) to control for response set bias. The new scale consists of 20 items covering both pro and con trait wording, thus minimizing the likelihood of a response set bias. Respondents were asked to indicate how frequently they felt the way the statements described: never, rarely, sometimes, or often. The internal consistency of the scale is high (coefficient alpha of .94). The concurrent validity of the scale is also good. Scores on the scale have

been demonstrated to correlate significantly with the amount of time students spent alone each day, the number of times students had eaten dinner alone during the previous two weeks, and the number of times they had spent a weekend night alone during the previous two weeks. Discrimi-inant validity for the test has been indicated by evidence that scores on the measure were not confounded by social desirability. In addition, the relationships between loneliness and various measures of social contact were discovered to be independent of the influence of mood and personality variables on loneliness. A copy of the UCLA Loneliness Scale is available in Appendix C.

CES-D Depression Scale. The CES-D (Radloff, 1971) is a 20 item scale which was designed to assess depressive symptomatology in the general population rather than an inpatient population. The test has high internal consistency, with an inter-item (split-half) correlation of .85. It has a test-retest correlation of .53 (over a four week period). The CES-D has been demonstrated to discriminate well between depressed psychiatric in-patients and the general population and moderately well between levels of severity within patient groups. The test also correlates well with other depression scales and with the individuals' self-reported need for help. A group with a high average score on the CES-D scale may be interpreted to be "at risk" for depression or in need of treatment. Subjects were asked to report how often they had felt the way the items describe during the past week. Answers may range from "rarely or none of the time" through "some or a little of the time" and "occasionally or a moderate amount of time" to "most or all of the time." This scale is available in Appendix D.

Self-Esteem Scale (SES). The measure of self-esteem chosen for inclusion in this study was Rosenberg's (1965) Self-Esteem Scale (SES). This scale consists of 10 items. Each item is scored on a Likert-type scale ranging from strongly agree through agree and disagree, to strongly disagree. To reduce the danger of a response set, half the items are worded positively, and half negatively. Test-retest reliability has been demonstrated to be .85 over a two week period. Scores on the SES are inversely correlated with depression and a number of psychosomatic symptoms, and are positively correlated with choice as class leader among high school seniors. High scores on the SES mean high self-esteem. A copy of the SES is available in Appendix E.

Self-Monitoring Scale (SMS). The level of the subjects' ability to monitor their own feelings and social behaviours was assessed through use of Snyder's (1974) Self-Monitoring Scale (SMS). This is a self-report measure of an individual's ability to observe and control his or her expressive behaviour and self-presentation guided by situational cues of social appropriateness. The scale is composed of 25 "true-false" items, 12 worded in the positive direction and 13 in the negative direction. The entire scale is available in Appendix F.

The SMS has a Kuder-Richardson 20 reliability of .70, and a test-retest of .83 ($df = 51$, $p < .001$, one month time interval). The scale has been demonstrated to be relatively independent of various other variables such as social desirability, and psychopathology, as tapped by the PD scale of the MMPI. Scores on the SMS discriminate between theatre actors and psychiatric inpatients. In addition, individuals who scored high on the SMS were better able to intentionally express and communicate emotion in both vocal and facial channels.

Fear of Negative Evaluation Scale (FNE). The FNE is a measure of apprehension about the others' evaluations, distress over their negative evaluations, avoidance of situations involving evaluation, and the expectation that other people will evaluate oneself negatively (Watson & Friend, 1969). Strong fear of loss of social approval has been defined as synonymous with fear of negative evaulation. The FNE consists of thirty true-false items. To reduce the danger of a response set, thirteen of the items are worded negatively and seventeen positively. Test-retest reliability over a one-month period has been demonstrated to be .78. The test has reasonable internal consistency, with a mean biserial correlation of .72 (N = 205, $p < .01$) and a KR-20 of .96. The influence of social desireability has been minimized such that the product-moment correlations of the FNE and the Crowne-Marlowe scale average -.25 (N = 205, $p < .01$). Significant correlations have been reported between high scores on the FNE and tendencies not to be autonomous or dominant but to be self-effacing. Individuals high on FNE tend to become very nervous in anticipation of social evaluation and tend to seek social approval. A copy of the FNE is available in Appendix G.

Reactions to Social Situations (RSS). The RSS is a measure of perceived social skill designed for use with a college-aged population (Shaver, Furman & Buhrmester, 1985). The goal of the scale is to assess a subject's self-rating of his or her own skill in five social skill areas: relationship initiation, assertiveness, self-disclosure, emotional support, and conflict resolution. The scale is composed of fifty items each of which describes a specific social interaction. The

respondent is asked to rate him or herself on comfort level and competency in each situation. A five level scale is used ranging from 1 (I'm poor at this) to 5 (I'm extremely good at this). Each of the items is rated once for friendship relationships and once for dating/romantic relationships. Each of the five social skill areas is assessed by ten items. The range of scores for each skill is ten to fifty. Buhrmester (1985) indicated that results of reliability and validity studies of the scale have been promising. The scale has demonstrated reasonable internal consistency with coefficient alpha of .75. The external validity of the scale has been demonstrated by its significant correlation with ratings made by friends on similar scales. The individual subscales have shown correlations of approximately .32 with friends' rating of the individual on similar scales. The scale correlates well with other measures of social skillfulness, e.g. the Guttman assertiveness scale. The scores on the individual scale correlate negatively with scores on the measures of trait loneliness. The complete scale is contained in Appendix H.

Attribution Measure. The attribution measure used in the current study was devised by Shaver, Furman, and Buhrmester (1985) to assess dimensions of attribution for success and failure modelled after Weiner's (1980) work. Dimensions included ability (internal, stable), effort (internal, unstable), task difficulty (external, stable), and luck (external, unstable).

The eight item scale samples attribution for success and failure in close friendships, intimate romantic relationships, casual same-sex friendships, and casual, dating relationships. Each of the four attribution alternatives included in each item was rated on a five point

scale: "This definitely is ..." to "This definitely is not one of my reasons." The authors (1985) observed significant positive correlations between scores on a measure of trait loneliness and tendencies to attribute failures to deficits in ability. Those subjects who scored higher on a measure of state loneliness less frequently attributed failures to internal stable personality deficits. The observed correlation between trait loneliness and attribution of social failure to ability was .49 ($p < .05$) and the correlation of trait loneliness and attribution of social success to ability was -.44 ($p < .05$). See Appendix I for a copy of the scale.

Coping Styles. The measure of coping strategies employed to deal with loneliness was also devised by Shaver, Furman, and Buhrmester (1985). The subjects are asked to rate on a five-point "never" to "often" scale the likelihood that they would respond to dissatisfaction with their social life in the following ways. A total of the 26 items sample a variety of responses to loneliness. The authors conducted preliminary factor analyses on the subject responses to the 26 items. Four reliable scales were derived which they labelled social interaction, sad passivity, active solitude and positive thinking. Results of a subsequent study demonstrated significant positive correlations between scores on a measure of trait loneliness and tendency to respond passively to loneliness ($r = .43$, $p < .05$). A complete copy of the scale is contained in Appendix J.

Interaction Diaries. It was considered important to attempt to gain some information as to the degree to which the treatment conditions lead not only to changes in questionnaire measures but also to changes in actual social relations. In order to access this kind of information,

subjects were asked to keep a loneliness diary, modeled after McCormack and Kahn (1980). The printed record form was in chart form with day numbers, A.M. or P.M., and time of day in half-hour segments in the left hand margin. Across the top margin were the following: (1) type of activity "work", "eating", "in class", "studying", "recreation", and "other", (2) contacts - whether one engaged in the activity "alone" or, "with one other person of the same sex", "one person of the opposite sex", "a same- sex group" or "a mixed sex group", (3) relationship of contacts - whether the contacts were "strangers", "acquaintance", "friends", "close friend" or "relatives", (4) conversation length "none", "less than 10 minutes", and "more than 10 minutes", (5) intimacy of activity or conversation - "low", "medium", and "high".

Subjects (those in treatment and control) filled in the interaction records on one day of the first treatment week and for one day of the week immediately following the ninth week of treatment. In addition, all subjects completed the diary forms for one day at the three month follow-up point. The specific day was varied so that each subject recorded interaction data for weekdays and weekend days. A copy of this log is available in Appendix K.

Behavioral Measures

At pre-treatment and immediately post-treatment all subjects were asked to role play nine minute interactions in same-sex dyads. Different dyads were created for each assessment and at post-treatment treatment subjects did not interact with a person from their own group. The scenario of the role play involved a casual, same-sex interaction, e.g. meeting a friend for coffee, going for lunch with a friend. Those role plays were videotaped for subsequent behavioural coding. The following

behaviours were coded: (1) personal attention responding (defined to include references to the other person's attitudes, opinions, experience or activities in the form of either comments or questions (Jones, Hobbs, & Hockenbury, 1982); (2) expression of personal opinions or attitudes (Hansson, Jones, & Allen, 1980); (3) number of continuations of the topic of conversation which had been raised by the partner defined as statements in which the subject commented on, responded to, or made reference to the partner's previous statement (Jones, Hobbs & Hockenbury, 1982); (4) eye contact, and (5) total time talked.

With the exception of the total time spent talking measure, all behaviours were coded as present or absent in consecutive 10-second intervals over the nine-minute tapes. The rater was unaware of the goal of the study and was trained to use the definitions of the behaviours in order to achieve a criterion level of 90% agreement (number of agreements divided by number of agreements plus disagreements). A random sample of 20% of the taped segments were scored by a second observer in order to assess for inter-observer agreement. A copy of the behavioural coding form designed for use by the rater is available in Appendix L.

The total time talking was measured using a discrete event recorder (Esterline-Angus). The duration of talking was scored using an on-off button-pressing system. Those responses which were separated by less than 1.6 seconds were combined as a single utterance (Pilkonis, 1976). A random sample of 20% of the videotaped segments were scored by another rater in order to assess inter-observer reliability. Inter-rater reliabilities are presented in the results chapter.

Training of the Group Leaders

The three female clinical psychology graduate students who conducted

treatment groups were all senior practicum students who had previous experience with the two treatment strategies. Prior to the onset of the study the leaders met with the investigator for a total of eight hours of training. In addition, weekly meetings were held with the leaders to discuss the content of each weekly session. Sessions were audiotaped so that the investigator could go over a checklist of the major elements of each session to be certain that each leader was uniformly covering the same main points. All group leaders covered all the salient elements of the treatment programs.

Treatment Approaches

Social Skill Training Procedures

The procedures used during the social skill training component of the proposed investigation included: behavioural rehearsal, information giving, modeling, relaxation training, and feedback and reinforcement. In the subsequent paragraphs information will be presented describing the major procedures.

Behavioural Rehearsal (role-play). Behavioural rehearsal has been frequently used to train new response capabilities. Controlled analog research has demonstrated that behavioural rehearsal procedures provide an effective means for facilitating assertive behaviour (McFall & Lillesand, 1971; McFall & Marston, 1970; McFall & Twentymen, 1973). Similarly, in the treatment of heterosexual social skill deficits, behavioural rehearsal is generally considered the primary change strategy

(Galassi & Galassi, 1979).

The implementation of behaviour rehearsal can be broken down into four general stages: (1) preparation of the client, (2) selection of target situations, (3) behaviour rehearsal, and (4) carrying out of new behaviour in real-life situations (Goldfried & Davison, 1976). Each of these stages will be discussed briefly.

Preparation of the clients for behaviour rehearsal basically has as its goals the clients' recognition of the need for learning new behaviours, their acceptance of behaviour rehearsal as an effective way to learn these new behaviours and the client's relinquishment of any residual anxiety concerning "playacting". In this study each group leader accomplished these goals via information-giving and modeling of a typical role-play scenario.

The role played situation of each treatment session was geared to the particular social skill which was the focus of the session. Training began with a focus on relatively simple skills and then progressed to more complex responses later in treatment.

After the information-giving and modeling segment of each treatment session, group members formed dyads and role played the specific skills of the session. The group leader circulated among the dyads giving feedback concerning the performance of each subject and modeling more appropriate behaviour once more. At times individuals may experience interfering anxiety when they attempt to practice troublesome social interactions. In order to counter-act that anxiety, two sessions included brief relaxation training (Goldfried & Davidson, 1976), and at-home practice of relaxation was encouraged.

All people who received social skill training were required to carry

out homework assignments involving real-life practice of targeted social responses. The self-monitoring (diary) assessment procedure described earlier was included as an indicator of the success of in vivo practice. In addition, the group leaders inquired of group members at the outset of each session as to their "homework". Gallup (1980) found this to be a useful reminder to group members concerning the importance of trying out new responses in the context of their daily experiences. He found that the feedback received from other group members was of effective assistance to the group leaders in this regard. His "contract accountability period" procedure was replicated in the current study. At the conclusion of each session, each group member contracted to perform the specific target response of that session. Then in the subsequent group meeting, 5-10 minutes were devoted to a discussion of the success/failure of each individual's attempt to practice the response in vivo. The subjects reported their homework on sheets designed for that purpose which they took home with them each week.

Modeling Procedures. Modeling may be defined as "the learning process in which an individual changes as a function of observing, hearing, or reading about the behaviour of another individual ..." (Wilson, & O'Leary, 1980, p. 187). The importance of modeling procedures can be traced to their role in the rapid acquisition of new behaviour without the necessity of performance or trial and error learning. Research has indicated that the most effective form of modeling is "participant modeling" (Bandura, 1977). A participant modeling procedure involves display of behaviour by the model, performance by the client, and corrective feedback to the client. This was the form of modeling used in the current loneliness treatment study. Both peers and group

leaders provided feedback.

Relaxation Training. Plentiful data exist to demonstrate that muscle relaxation markedly reduces anxiety (Bernstein & Borkovec, 1973; Goldfried & Trier, 1974; Jacobson, 1923; Long, Melamed & Hart, 1970; Paul, 1969). Training the individual in relaxation skills can help to facilitate behaviour rehearsals particularly if the behaviours being practiced during role plays tend to induce anxiety (Goldfried & Davison, 1975). If the client has within his or her repertoire the capacity to bring about deep muscle relaxation, he or she will be better able to engage in role play rehearsal of social skills.

The technique consists of teaching the individual to tense and relax different muscle groups of the body alternately. The person gradually becomes aware of feelings of tension and begins to use those feelings as cues to substitute feelings of relaxation. The individual is taught to relax four major muscle groups: (a) hands and arms; (b) legs and feet; (c) head, face and throat; (d) shoulders, chest, and stomach (Wilson & O'Leary, 1980).

During the relaxation training segments of the treatment sessions, group leaders followed a script of relaxation training based on Goldfried and Davison (1976). That script was uniform across groups.

Information Giving. Gallup (1980) made use of several comprehensive handouts on various social skills. The current study sampled from those handouts and included original handouts so that the group members received take home information on each of the behaviours taught during group sessions. The information contained in those handouts summarized

what had been covered by the group leader during the preceding session. The goal of that procedure was to strengthen the generalization of behaviour change to the individual's real life performance.

Social Skill Training Weekly Sessions

Training Session One. The first goal of this training session was the fostering of a sense of trust and sharing between the group leader and group members and among the group members themselves. Group members were introduced to each other by the group leader and then engaged in a mutual name exchange procedure borrowed from Shaul (1981). Within this procedure (called the "Name Game") a person says their name, the next person says the name of the person who went before, then their own, and so on. This procedure was repeated on week two, and served to familiarize all group members with everyone's name, thus making mutual communication less difficult. Also during this first session the ground rules of the group were established. These rules included the commitment of all group members to maintain the confidentiality of other individuals in the group. The rationale for this rule should be readily understandable to all individuals in terms of the difficulty people experience establishing trusting relationships and the facilitating role played by the knowledge that any information shared during group sessions would not travel outside of that setting. All individuals received a takehome handout listing group rules. This handout was modeled after that used by Gallup (1980) and is available to the reader in Appendix M of this write-up.

The next activity of the first meeting was a warm-up exercise designed to acquaint group participants with one another. Each person

was given a sheet with a list of discussion topic and was paired up with another group number for a 5-minute period during which both people in the dyad shared information concerning those topics. Three of these five minute interactions were engaged in by each group member. This exercise helped to make people feel slightly less anxious in the group situation. Gallup (1980) included a similar procedure and reported favourable clinical impressions with regard to its effectiveness. The list of conversation topics is included in Appendix M.

The next section of the meeting was devoted to a presentation of the treatment rationale. The group leader discussed the nature of the social skill training model of interpersonal problems and its relationship to loneliness. Basically this entailed a description of loneliness in terms of the relative absence of certain important social skills and a discussion of the success of past efforts to train such skills. Group members were given the opportunity to ask questions of the group leader at this point.

The remainder of the first meeting was devoted to practice of relaxation training. Prior to the first session of relaxation training the participants received a careful explanation of the procedure (Goldfried & Davison, 1976). The points covered in that orientation are listed in Appendix M. In addition, the group members each received a brief self-instructions handout so that they might practice progressive relaxation at home. That handout was taken from a stress reduction workbook composed by Davis, Eshelman, and McKay (1980). It is included in Appendix M as well.

Training Session Two. At the beginning of the second session the group leader reviewed the subjects' experiences at practicing relaxation training at home. The name game was then repeated and the general orientation to the skills involved in active listening followed. The following responses were focussed upon: (1) eye contact, (2) body posture (communication of interest by leaning toward the person and refraining from unnecessary shifting about), (3) nonverbal responses indicating attention, e.g. head nods, and (4) brief statements that invite the other person to share his or her ideas.

The session was structured such that the modelling and role plays of the nonverbal listening behaviour took place first, followed by orientation to the verbal behaviour and modelling and role playing of that class of responses. The subjects were given a handout describing active listening and contracted to practice those skills between sessions. The orientation material and homework sheet are contained in Appendix M.

Training Session Three. The session began with homework contract discussion. The following 10 or 15 minutes were then devoted to role plays of active listening in order to consolidate those skills.

Next an orientation to "paraphrasing" was presented and a handout based on Gallup (1980) was distributed. Paraphrasing was included in response to the literature suggesting that lonely individuals tend to be excessively self-focussed and less accurate in encoding messages from others. The group leader modeled both inappropriate and appropriate use of paraphrasing and then had each subject take part in three dyadic role

plays to practice the skill. The leader circulated to provide reinforcement and feedback as well as further modeling. The session ended with distribution of homework recording sheets and contracting for specific at-home practice. See Appendix M for the materials circulated in week three.

Training Session Four. The focus of week four was upon training subjects to give and receive social feedback. The ability to provide feedback to others was seen as an important component of the capacity to express one's personal opinions and needs. Similarly it was thought to be important that the lonely individual receive practice at listening to feedback from others as information which might facilitate relationships. Two basic rules of the social feedback process were stressed. Those included the necessity of being specific in one's remarks and of being descriptive of behaviour rather than judgemental. The subjects received a rather lengthy handout discussing feedback and then watched the group leader model both negative and supportive feedback. The remainder of the session was devoted to role plays of social feedback. The session ended with homework contracting and distribution of homework sheets. See Appendix M for the information sheets provided to subjects during this session.

Training Session Five. During this session all subjects role played social interaction and were videotaped. The videotapes were then viewed by the group and members were given feedback concerning the strengths and weaknesses of their communication skills. The videotaping allowed individuals to observe themselves and achieve a clearer understanding of

their social stimulus value to others.

The session ended with relaxation training.

Training Session Six. The focus of session six was upon teaching the group members how to encourage social exchange through use of a class of responses known as "personal attention" (Jones, Hobbs, & Hockenbury, 1982). The subjects received an orientation to the concept of personal attention and were given a handout (see Appendix M). After watching the group leader model the use of personal attention responding, the subjects engaged in three dyadic role plays. They received feedback from the group leader and one another while carrying on those practice conversations. The session concluded with contracting for between session practice of the social skill (See Appendix M for the homework sheet).

Training Session Seven. After the homework review, the group leader introduced the rationale for the importance of self-disclsoure as a means of overcoming loneliness. She then modeled disclosure of her enjoyment of the group session as well as whatever concerns she might have had about the group process. The group members then formed dyads and engaged in self-disclosure. They were encouraged to practice situations involving relationships among group members or important relationships in the environment external to the group. The leader provided feedback and encouraged feedback from the other group members specifically aimed at highlighting how much closer an individual will come if he or she has received information about one's feelings. The session concluded with distribution of the self-disclosure handout and contracting for practice

of the skill between sessions. Copies of the handout and homework sheet are available in Appendix M.

Training Session Eight. The focus of this session was upon training group members to extend invitations and plan social activities. The supposition was that teaching this particular skill would increase the frequency with which lonely subjects would make use of active coping strategies to alleviate loneliness. Group members witnessed the group leader modeling two social invitations - one of which was accepted and one of which was rejected. The subjects were encouraged to make use of the ensuing dyadic role plays to rehearse the invitation that they would like to extend in their homework assignment.

Prior to the conclusion of the session, the group leader facilitated a group discussion of reactions to being turned down. The emphasis was upon normalization of social rejections. The group had two homework assignments in Week Eight. They were to practice extending an invitation to a social activity. In addition, they were asked to compile a list, however brief, of the topics upon which they held strong feelings and opinions. That list was to be brought back to Week Nine.

The session concluded with the distribution of the handout (derived from Gallup, 1980) and homework recording sheet both of which are available in Appendix M.

Training Session Nine. The last session focussed on two goals: (1) to give the group members an opportunity to become more assertive at expressing their own ideas and (2) to encourage them to exchange positive feedback with one another. The usual modeling procedure and role plays

were used.

At the conclusion the questionnaires were completed, the interaction diaries distributed, and the subjects provided the leader with follow-up addresses. In the ensuing week they were contacted by phone and arrangements were made for each subject to come in to take part in the nine-minute videotape role play. At that time the completed interaction diaries were collected.

Cognitive Restructuring

The specific cognitive techniques that were used in the proposed treatment study included: refuting irrational thoughts (Beck, Rush, Shaw, & Emery, 1979; Ellis, 1970; Goldfried & Davison, 1976; Young, 1982); reattribution training (Beck et al., 1979) and cognitive rehearsal and fantasy (Beck et al., 1979; Young, 1982). Each of these procedures will now be discussed in some detail. Following those descriptions, the nine cognitive restructuring treatment sessions will be described.

Refuting Irrational Thoughts. As was noted earlier, the cognitive therapy approach focuses upon the role of maladaptive thought patterns in the maintenance of emotional disorders. The goal of therapy is the identification and modification of those self-defeating thoughts. In order to accomplish these objectives behavioural and cognitive procedures are used. These include graded homework tasks aimed at mastery, activity scheduling, and identifying and testing irrational thoughts.

The cognitive therapist works collaboratively with the client to correct errors in thinking. The first priority is helping the individual

to recognize the irrational thoughts that may be interfering with his/her behaviour. Initially the client is asked to monitor his/her negative emotions and behaviours on a daily basis, attempting to focus upon what thoughts have run through his/her mind immediately before, during and immediately after the experience. All of these components are recorded by the client on a daily log. This process can be accomplished within the therapy session as well as via cognitive rehearsal of either anticipated or already experienced negative encounters. The therapist asks the client to describe the situation in detail and enquires as to what the client may have been thinking about during the experience. In addition, role-plays of the events can be used to trigger those same automatic irrational thoughts. A final technique that Beck et al. (1979) have proposed involves asking the client to "run a movie in his/her head. The individual is asked to fantasize a specific anxiety-provoking experience and to imagine what he/she would be thinking while going through the experience, as well as the feelings and behaviours associated with those thoughts.

All three of these procedures (cognitive rehearsal, role play, and fantasy) were used in the proposed study in order to help lonely subjects identify their negative interpretations of their chances for social success and the reactions of others to them in social interactions. As was noted earlier in this paper, research has indicated a correlation between loneliness and negative attitudes towards the self and one's future social accomplishments, as well as tendencies to judge others more harshly. These cognitive restructuring procedures were directed towards

identifying and refuting the negative, pessimistic thought patterns. The expectation was that accomplishment of this process would allow the lonely individuals to take a more active approach to their social environment.

Reattribution. The alleviation of self-blame of the lonely was attempted through use of "reattribution" techniques (Beck et al., 1979). These techniques are specifically designed to remedy the individual's tendencies to attribute all negative occurrences to a personal deficiency, such as a lack of ability. The object of the procedure is not to remove all responsibility from the person, but to point out all the other situational factors that may also have played a role. This is accomplished by any or all of three major approaches: (1) reviewing the facts of the events in question; (2) demonstrating the different criteria for assigning responsibility applied by the individual to him or herself versus other people, and (3) by challenging the individual's belief that he/she is 100% responsible.

The self-blame and concomitant self-criticism of the lonely were attacked via role-playing procedures. The therapist initially played the self-critical role and one of the group members took the therapist role. In this fashion it was possible for the lonely people to gain increased objectivity concerning their destructive self-criticism (Beck et al., 1979).

Stress Innoculation Training. The subjects were taught specific cognitive techniques to use as coping devices in stressful social situations. This procedure was taken from Meichenbaum's (1977) stress

innoculation training and involved three phases. During the first phase the group members received information concerning the rationale for stress innoculation. This rationale was taken from The Relaxation and Stress Workbook (Davis, McKay, & Eshelman, 1980) and is available to the reader in Appendix N. The second phase of stress innoculation training is referred to as "rehearsal" and involves the provision of coping responses including relaxation training and cognitive coping. The latter technique is divided into four phases: preparing for the stressor, confronting and handling it, coping with the feeling of being overwhelmed and finally, reinforcing self-statements. The Meichenbaum (1974) list of these self-statements is available in Appendix N. Once the group members were able to use these skills in group role play situations, they were encouraged to try them out in the "real world".

Cognitive Restructuring Weekly Sessions

Training Session One. The goals of this session of cognitive restructuring were the same as those of the first session of social skill training. The group leader focussed on developing a sense of mutual trust among group members. The "Name Game" was used, as was the "warm-up" exercise (see Appendix M). In addition during this session the subjects were taught how to engage in progressive relaxation and received the handout on relaxation training (see Appendix M). The group rules described in the account of the first session of social skill training also applied to the cognitive restructuring group and that handout was distributed (Appendix M).

The major purpose of the meeting was the explanation of the treatment rationale. The role of our pessimistic thoughts and self-statements in increasing our anxiety and disrupting our attempts to cope successfully was discussed and questions were answered. The two column "loneliness log" was described and several copies of the chart were handed out to each group member for completion in the ensuing week. The log itself was modeled after that used by Beck (1976) in the treatment of depression. Essentially it entailed the subjects' recording of the situations in which they felt lonely daily and the thoughts they identified at those times. The treatment rationale and a copy of the loneliness log are contained in Appendix N.

Training Session Two. At the beginning of this session relaxation training was conducted for approximately 15 minutes. Then the "Name Game" exercise was repeated. Next the loneliness-associated cognitions recorded by the group members were reviewed. This time was also used to reiterate the rationale for the cognitive treatment of loneliness. The subjects were asked to go through their loneliness logs and choose a situation which was particularly difficult for them. The group leader lead several of the individuals through a cognitive rehearsal process in which the individual described aloud the social interaction and the leader encouraged other group members to ask questions with regard to the person's negative misinterpretations and self-blaming attributions.

The subjects also engaged in brief role plays of difficult social situations. The focus of these role plays was upon helping one another to pinpoint pessimistic thoughts about performance and to address the

irrationality of those thoughts. The process of refuting irrational thoughts was introduced in the context of Young's (1982) low self-concept cluster. The cognitions associated with this cluster include thoughts of being dull, ugly, cold, unlikeable, stupid, etc. The group leader facilitated a group discussion concerning the role of such self-deprecation in maintaining loneliness. The session concluded with relaxation training and the distribution of the "two-column" lonely cognition charts. The subjects were asked to record their thoughts when they felt lonely as an initial step in learning to be objective about the accuracy of those interpretations.

Training Session Three. Week Three began with further explication by the leader of the role of cognitive distortions in the perpetuation of loneliness. The negative thoughts identified in the cognition charts of the group members were examined in relation to the themes of low self-concept and social anxiety (Young, 1982). The notion was introduced of treating one's self-statement as hypotheses rather than as definitions of reality. The subjects engaged in cognitive rehearsal and role plays with one another and focussed upon testing the reality of their negative self-statements. The group leader circulated among the dyads and assisted in the generation of alternative, less self-blaming interpretations of social experiences.

At the conclusion of the session each group member contracted to enter a social situation in the ensuing week. The goal was for each person to focus upon her interpretations of the social experience and to practice generating more rational explanations of the outcome of the

interaction. The cognitive charts distributed included a column requesting alternative interpretations for each dissatisfying social situation. A sample cognition chart is available in Appendix N.

Training Session Four. The focus of the week continued to be upon the poor self-concepts of the group members and the role of that self-deprecation in the maintenance of loneliness. The cognition charts were reviewed and used as material for cognitive rehearsals and role plays to practice generating alternative self-statements.

To assist the subjects in their efforts to focus on personal strengths, a strength bombardment procedure was conducted. Each group member listened as others pinpointed her personal strengths. The ensuing discussion focussed on the ability of each to acknowledge positive characteristics in themselves and the implications for relationship-building of operating from a basis of positive self-esteem.

Reattribution training occupied the majority of the ninety minute session. The focus was on enhancing the subjects' abilities to identify the situational variables that may contribute to a problem social situation. The rationale for reattribution training and the process followed by the group leaders are available in Appendix N.

Training Session Five. The focus of both sessions five and six was upon the maladaptive cognitions comprising Young's (1982) "social anxiety" cluster. The rationale was presented that if one expects catastrophic consequences for social faux pas one is less likely to attempt various social situations. The intense fear of rejection and the expectation that others find one boring would lead the lonely person to

avoid interactions. The cognition charts were examined for the influence of those kinds of cognitive distortions and cognitive rehearsals and role plays were used to provide an arena for the refutation process to occur. The details of the rationale presented to the subjects are available in Appendix N.

Training Session Six. In session six videotaping was added to the cognitive restructuring process. The goal of videotaping the role plays was to provide the group members with evidence of how inaccurately they perceived themselves and of the disparity between their self-evaluations and the evaluations others made of them.

At the conclusion of the session, each subject received cognition charts and contracted to share a personal concern with another person. That homework assignment was designed to provide material for discussion in weeks seven and eight when the cognitions associated with Young's (1982) "constriction" cluster were addressed.

Training Session Seven. The main theme of the constellation of thoughts comprising the "constriction" cluster is a fear of rejection. The focus of cognitive restructuring in week seven was upon the negative self-statements which prevent lonely people from approaching others to enhance the intimacy of relationships. The group members were asked to consider their own hesitations about self-disclosing and to examine that reluctance for a fear of being met by disinterest or dislike. The group time was devoted to role plays and mutual examination of the evidence to support the negative expectations other lonely people hold concerning the willingness of others to become close.

The homework assignments combined recording of negative self-statements with deliberately placing oneself in a social situation which might both trigger those cognitive distortions and provide an opportunity for intimacy.

Training Session Eight. Week eight began with a discussion of the experiences of those who had attempted to carry on cognitive restructuring while facing a challenging social encounter such as self-disclosing.

The session concluded with stress innoculation training (Meichenbaum, 1977). The goal of that procedure was to teach a cognitive technique which might assist the subjects in keeping anxiety at manageable levels prior to and during social interactions. The rationale presented to the group and the subject handout containing directions for carrying out the procedure are available in Appendix N.

Training Session Nine. The final session was devoted to a review of the major cognitive restructuring procedures: refuting irrational thoughts, reattribution training, and stress innoculation training. In addition, as a form of innoculation each subject role played a social rejection and engaged in the cognitive restructuring process with a partner.

At the conclusion of the session addresses for three-month follow-up were collected and the interaction diaries and questionnaires were distributed. In the ensuing week the subjects returned for post-treatment videotaping and returned their completed diaries.

Data Collection - Waiting List Control

The waiting list control subjects completed all the dependent measures, including the videotaping during the two week period after the nine week treatment session. They were phoned to appear for the videotaped interaction and at the time of that appointment completed the post-treatment questionnaires and were given the interaction diary. All were aware that they would be recontacted three months later for further assessment.

Collection of Follow-up Data

Approximately ten weeks after completion of the post-treatment assessment, all subjects were mailed the questionnaires (UCLA Scale, CES-D, SMS, SES, FNE, RSS, attribution measure, coping styles) and an interaction diary with an assigned day for its completion, along with a stamped, addressed return envelope. The subjects were informed that in return for receipt of the completed questionnaires and diary they would receive five dollars. A copy of the cover letter sent with the measures is contained in Appendix O. The remuneration was sent along with a letter of appreciation requesting an address to which the results of the research might be sent. Those who had been assigned to waiting list control received a slightly different letter with their five dollar remuneration. They were offered participation in a treatment group should they so desire. Only one person responded to that request (a subject in 1983/84). She took part in a group in 1984-85.

CHAPTER THREE

Results

Two classes of preliminary analyses will be discussed. The first explored the chronic versus situational loneliness typology via hierarchical clustering techniques. The second looked for differences between groups of subjects as a function of the group leader administering the treatment. In order to test for an effect particular to the group leader factor two 2x3x3 repeated measures multivariate analyses of variance were performed including the group leader (three levels), and type of treatment (social skill training, cognitive restructuring) as between --subject factors and time of assessment as the repeated measures factor. No significant differences were detected in subjects' performances on the groups of dependent variables as a function of the group leader factor. Therefore, all subsequent analyses focussed on the differential effectiveness of the two treatment strategies summing across the group leader factor.

For the purposes of assessing the impact of treatment group membership upon performance on the dependent measures, seven major multivariate analyses of variance were conducted. In those analyses the between subject factor was treatment condition with three levels (social skill training, cognitive restructuring, and waiting list control). The within-subject factor was time of assessment (pre- and post-treatment and follow-up). The decision was made to take a consistently multivariate approach to the data analysis. That meant that significant multivariate

effects were explored through discriminant analysis. Tables of the standardized discriminant function coefficients and analyses of variance for each dependent variable are presented for each significant multivariate effect. The standardized discriminant function coefficients indicate the relative contributions of each individual dependent measure to group discrimination. The contribution of each dependent measure is considered in conjunction with the contributions of all other dependent measures (Spector, 1977). The strength of discriminant analysis is in choosing the sets of dependent measures which best discriminate between the three treatment groups. The univariate significance tests for each dependent variable consider each separately ignoring intercorrelations between dependent measures. Those statistical test results were presented along with the function coefficients as a means of illustrating between-group differences on each dependent measure at pre- and post-treatment and follow-up. Each univariate significance test presented represents the contribution of each dependent measure to the significant effect. The higher the F value for each dependent, the greater its contribution to multivariate group differences (Spector, 1977). For the reader interested in the relationships between the dependent measures, included in Appendix R are tables which report the simple correlations of the dependent measures at pre- and post-treatment and follow-up assessment intervals.

Finally two additional multivariate analyses of variance were performed to explore the influence of initial, pre-treatment levels of

fear of social rejection and self-rating of social competency upon response to the two active treatments. In each of those analyses a second between-subject factor was added. Subjects were classed as distinct groups on the basis of pre-treatment level either of social skill or of fear of social rejection.

Results of Attempt to Form Situational and Chronic Loneliness Clusters

As was discussed in the methods section, two attempts were made to produce two distinct groups of lonely women distinguishable as either chronically or situationally lonely. The results of each of those two sets of analyses will be discussed in turn.

The responses of 186 female under-graduates to a ten-item questionnaire and the UCLA Loneliness Scale were subjected to two cluster analyses (BMDP-KM). The PKM clustering method partitions a set of cases into clusters based on the Euclidean distance measure between the cases and the centres of the clusters. At the completion of each run each case belongs to the cluster whose centre is closest to the case and each cluster centre is the mean of cases belonging to that cluster. The following were the variables upon which clustering was attempted: UCLA Loneliness Scale score, "Am I a lonely person?" (yes/no), "Have I always been lonely?" (yes/no), "Have I been lonely in the past few weeks?" (yes/no), "Is loneliness a personal problem to me?" (yes/no), "Is my loneliness due to something about me or about the situation?" (answered on a scale of 1 to 6), time of lonely experience, and severity of loneliness (rated from 1 to 4).

Initially, the responses of all 186 women were analysed. Two clusters approximating the chronic versus situational distinction were formed, accounting for 35 out of 186 subjects. The smaller of the two

clusters (N = 14) was seen as possessing certain characteristics associated with chronicity of loneliness when compared to the larger cluster (N = 21) which was labelled as representing a group of situationally lonely people. Both clusters of people scored sufficiently high on the loneliness scale to be labelled as lonely. (M chronics = 54.4, M situationals = 47.1). The cluster labelled as situational loneliness scored on the average slightly lower on the loneliness scale than did the cluster labelled as chronic. That difference between the two groups on level of loneliness is compatible with the theoretical distinctions drawn between the two (Young, 1982). The chronic cluster on average rated themselves as "lonely people", as having always been lonely, as having been lonely for the past few weeks, and experiencing severe loneliness. In contrast, the situational cluster on average responded that they had not always been lonely but had been lonely in the past few weeks. They seemed to be somewhat less likely to see loneliness as a personal problem and rated themselves to be experiencing less severe loneliness over a shorter period of time. Table 1 presents the means of the two clusters on the eight variables.

The results of this larger analysis were sufficiently interesting to warrant follow-up analysis of those subjects who had scored above the mean on the UCLA Loneliness Scale. A cluster analysis (BMDP-KM) was performed on the responses of the 63 women who scored above the mean on the UCLA Loneliness Scale (M = 41.4). The results of that analysis produced two clusters which could be meaningfully interpreted (see Table 2). The two clusters accounted for 28 of the 63 women. Into the smallest of

Table 1
Results of Cluster Analysis of Responses
to Brief Screening Questionnaire (N=186)

	VARIABLE (MEANS)							
Clusters	UCLA	Lonely Person?	Always Lonely?	Lonely Lately?	Loneliness A Problem?	Causes	Time Lonely	Severity of Loneliness
1 (N=14)	51.42	2.00	2.00	1.93	1.79	1.71	4.43	3.14
2 (N=21)	47.14	1.90	1.00	1.95	1.57	1.67	3.43	2.62

Larger Scores on all variables corresponds to chronicity.

the two (N = 9) fell those women who rated themselves as more lonely, as having always been lonely, and as having experienced more severe loneliness for a longer period of time. That small cluster was seen to approximate a group of chronically lonely women. The other cluster (N = 19) was interpreted to represent a group of the situationally lonely. They scored high on the UCLA Loneliness Scale but were less likely to label themselves as lonely people or to see loneliness as having always been a problem for them.

In examining the results of those two analyses two points were raised. First there were both consistencies and inconsistencies between the results of the analyses and Young's descriptions of a dimension of chronicity of loneliness. The time and severity dimensions he stressed in making the distinction were observed to play important roles in forming the two clusters of lonely women. However, the women could not be distinguished on the basis of their situational attributions for the causes of perceived loneliness. Secondly, only a very small percentage of lonely women sampled fell into the "chronic" cluster (14%).

The decision was made to include further variables in a second screening process in order to assess in greater depth the role of pessimistic attributions in accounting for loneliness. A further ten variables were included in the second analysis. A total of 141 women provided completed data. The additional variables were: 1) Young loneliness Scale, 2) a count of the number of situational stressors the person checked from a list of 12 as having occurred to them in the past six to eight months; a rating from one to five of how important (3)

Table 2
Results of Cluster Analysis of Brief Screening Questionnaire - Subjects > 36.1 on UCLA

	VARIABLE (MEANS)							
Clusters	UCLA*	Lonely Person?*	Always Lonely?*	Lonely Lately*	Loneliness A Problem?*	Causes*	Time Lonely*	Severity of Loneliness*
1	59.00	2.00	2.00	2.00	1.78	1.67	5.00	3.44
2	51.67	1.80	1.00	2.00	1.80	1.80	3.47	2.80

*Larger scores on these variables indicate more chronic loneliness.

shyness; (4) lack of information; (5) fear of rejection; and (6) a poor personality were in producing their loneliness; (7) a measure of optimism that loneliness would soon lift; (8) an item assessing internal, stable attributions for loneliness; (9) an item assessing external unstable attributions for loneliness; and (10) a network questionnaire from which was taken the number of friends in the individual's available sphere.

The cluster analysis (BMDP-KM) was conducted on the 58 subjects who scored above the mean (M = 36.3) on the UCLA Loneliness Scale. The results of that analysis produced two clusters which only approximated the situational versus chronic distinction. The two clusters which most closely corresponded to a situational and chronic distinction still could not be distinguished on the basis of causal attributions made for loneliness. The dimensions upon which the two were distinguishable were basically time and severity of loneliness. The items included to make a distinction on the internality of attributions for loneliness did not distinguish between the two clusters in a manner consistent with the chronicity model. In addition, only six individuals fell into the cluster labelled as representing chronic loneliness. The number falling into the situationally lonely cluster was larger (N = 25). Table 3 contains the means of the two clusters on each of the variables.

The results of the two cluster analyses failed to provide a distinction between chronic and situational loneliness based on the type of attributions made for the experience of loneliness. In addition, only a very small number of women could be labelled as chronically lonely on

Table 3
Results of Cluster Analysis on Larger Variable Set
Means on Variables

Variables	Clusters 1	Clusters 2
UCLA	47.50	44.44
Young	19.50	12.32
Lonely Person	2.00	1.00
Always Lonely	2.00	1.00
Lonely Lately	2.00	1.36
Loneliness a Problem	1.67	1.22
Role of Fear of Rejection	4.17	2.40
Time Lonely	4.33	1.92
Severity of Loneliness	2.67	1.96
Time Loneliness Lasts	2.50	2.32

Note. Larger Means indicate chronicity
1 = Chronic Loneliness Cluster
2 = Situational Loneliness Cluster

the basis of time and severity of loneliness. For those reasons, the decision was made to abandon the investigation of the typology of loneliness and to focus upon the impact of the two treatment strategies.

Survey Results

A total of 661 female undergraduates were screened for inclusion in the final investigation using the UCLA Loneliness Scale - Revised (Russell et al. 1980). The mean loneliness score of that sample of women was 39.9 out of a possible 80. The score corresponded closely to the normative statistics obtained by Russell et al. (1980) during their efforts to devise the revised scale (M = 36.06). The decision was made to define as "lonely" those who scored in the upper 25% of the distribution of UCLA Loneliness Scale scores. That decision was based upon the precedence of other investigations. In addition the decision was a response to the observations of Russell et al. (1980) with regard to the social relationship deficits associated with levels of loneliness assessed by the UCLA Revised Scale. Those authors observed that the group of students in their sample who were not dating at all had a mean loneliness score of 43.1; students who were dating casually and those who were romantically involved had means of 34.0 and 32.7 respectively. The lowest achieved loneliness score included in the current study was 43.

Test for Between Group Differences as a Function of Therapist

Three female graduate students served as group leaders. Each conducted both social skill training and cognitive restructuring. The

expectation was that no significant differences in the performances of the subjects in the therapy groups would be observed which could be attributed to the influence of the therapist. In order to test that hypothesis two analyses were conducted. In both the between subject factors were therapist (with three levels) and treatment condition (social skill training and cognitive restructuring). The repeated measures factor was a time dimension.

In the first analysis, the dependent variables were scores on the UCLA Loneliness Scale, the CES-D Depression Scale, and the Rosenberg Self-Esteem Scale (SES) at pre- and post-treatment and follow-up. The test of the main effect of the therapist factor did not achieve statistical significance (F 6, 122 = .936, p = .472), nor did the tests of the interaction effects involving the therapist factor (therapist x treatment x time F 12, 156 = .741, p = .710; therapist x treatment F 6, 122 = .766, p = .598; therapist x time F 12, 156 = .424, p = .952). In conjunction, those results meant that no differences were detected in the impact of the two active treatment programs as a function of the therapist administering them. See Table Q1 (Appendix Q) for the summary of the results of this analysis.

In the second multivariate analysis, the dependent measures included subjects' scores in the videotaped social skills. Ratings were made at pre- and post-treatment on the following six behaviours: total number of utterances, total number of seconds talked during the nine minute interval, and total number of intervals of topic continuation, eye

contact, partner reference and personal opinion expression out of a possible 54. This represented a 2(treatment group), x 3(therapist) x 2(time of measurement) design. The test of the three-way interaction of the therapist, treatment group and time factors was not significant (F 24, 174 = 1.168, p = .278). In addition, the test of the interaction between the therapist and treatment factors was nonsignificant (F 12, 169 = .882, p = .566). Those results indicated that no differences were detected in the impact of the two treatment programs upon the assessed social skills as a function of the therapist administering each. The test of the main effect of the therapist factor was also nonsignificant (F 12, 169 = 1.204, p = .284). Table Q2 (Appendix Q) contains a summary of the multivariate tests of the therapist and treatment factors.
On the basis of these results, the decision was made to ignore the therapist factor in all further analysis.

Evaluation of the Impact of the Active Treatments

The exploration of between group differences was pursued through seven groups of analyses based upon the class of dependent measures included in each. The measures were grouped as follows: CES-D, SES; FNE and SMS; responses to the Reactions to Social Situations Scale (RSS); success and failure attributions; Coping Styles; interaction diary data; and coded behaviours from videotapes. The dependent measures were entered in those subgroups in relation to the hypotheses they were designed to assess. It was also necessary to run analyses on reduced

numbers of dependent measures in order to enhance statistical power. The Type I error rate was set at .05 for the test of each hypothesis because each was seen as a distinct analysis of nonredundant information (Kirk, 1968).

Changes to Loneliness, Mood, and Self-Esteem

In order to assess the impact of the treatment programs upon the moods and self-concepts of the subjects, a multivariate analysis of variance was conducted upon subject scores on the UCLA Loneliness Scale, the CES-D Depression Scale, and the Rosenberg Self-Esteem Scale (SES). The between subject factor was treatment condition (social skill training, cognitive restructuring, waiting list control). The within subject factor was the repeated measurement of each subject on all dependent measures at pre- and post-treatment and three-month follow-up.

A significant multivariate interaction of treatment group and the repeated measures factor (time) was detected (F 12,198 = 1.943, p = .031). The degree of change over time in the subjects' scores on the dependent measures varied as a function of the treatment condition factor. Table 4 contains the results of analyses of variance conducted on each dependent measure as well as the standardized discriminant function coefficients which reflect the joint contribution of the set of dependent measures to the significant interaction. The univariate significance tests indicated that the three treatment groups differed significantly in the amount of decrease in loneliness between pre- and post-treatment and follow-up, as well as in the extent of the decrease in

depression between pre- and post-treatment. The discriminant analysis produced a significant root (F 12,198 = 1.943, p = .031), which accounted for 87% of the total between-group discriminatory power of the dependent measures. The second root was nonsignificant (F 5,100 = .619, p = .686) and accounted for 12% of the total between-group discriminatory power of the dependent measures. In total, 18% of the variability in the discriminant space was attributable to between-group differences on the dependent measures. When the univariate significance tests were compared with the standardized discriminant function co-efficients for each dependent measure the contribution of each to the interaction was clarified. (See Table 4 for those coefficients).

The rate of change between post-treatment and follow-up on the UCLA Loneliness Scale, the CES-D Depression Scale, and the SES were rated most heavily in the discriminant function. The exception to that pattern was observed with regard to the CES-D Depression Scale. The changes in scores on that scale between pre- and post-treatment was also weighted heavily in the discriminant function. An examination of the means of the cognitive restructuring, social skills, and waiting list control groups on those three dependent variables illustrated what the discriminant function coefficients meant. Those cell means are contained in Table Q3 (Appendix Q). As Figures 1 and 3 illustrate the subjects in the two treatment conditions showed a more precipitous decline in loneliness and a more rapid increase in self-esteem than did those assigned to waiting list control. Figure 2 illustrates the rather unique group differences over time on the depression measure. The subjects assigned to the two

Table 4
Interaction of Treatment and Time Factors
Univariate Tests and Standardized Discriminant Function
Coefficients

Dependent Variables	*F*	*df*	*p*	Coefficients
UCLA (Pre to Post)	3.393	2,104	.037*	.00697
UCLA (Post to Follow-up)	3.934	2,104	.023*	-.56891
CES-D (Pre to Post)	3.638	2,104	.030*	.53562
CES-D (Post to Follow-up)	.398	2,104	.673	.65063
SES (Pre to Post)	3.011	2,104	.054	-.12715
SES (Post to Follow-up)	2.684	2,104	.073	.47688

* $p < .05$

treatment conditions demonstrated a more significant decrease in depression between pre- and post-treatment than did those in waiting list control. Even more interesting is the continued drop in depression up to follow-up revealed by the treatment group subjects contrasted with the gradual increase in depression in the waiting list control group between post-treatment and three-month follow-up.

A significant multivariate main effect was detected for the repeated measures factor (F 6,99 = 20.245, p = .000). Examination of the univariate tests of the three dependent variables indicated that all subjects demonstrated significant changes over time on the loneliness, depression and self esteem measures. The graphs presented in Figures 1, 2 and 3 confirm that all subjects experienced decreased loneliness and depression and increased self-esteem between the first and third assessment points. The discriminant analysis produced a significant root ($p < .000$) which accounted for 54% of the total discriminatory power of the group of variables. Examination of the discriminant function coefficients indicated that the main effect of change over time was largely the result of the reduction in UCLA loneliness scores between pre- and post-treatment (see Table 5). The other dependent variables, although achieving significance on the univariate tests did not account for significant amounts of unique variance not accounted for by changes in scores on the UCLA Scale.

The multivariate test of the main effect of the treatment condition factor did not achieve statistical significance (F 2,104 = 1.160, p = .329). What this result indicated was that the differences observed

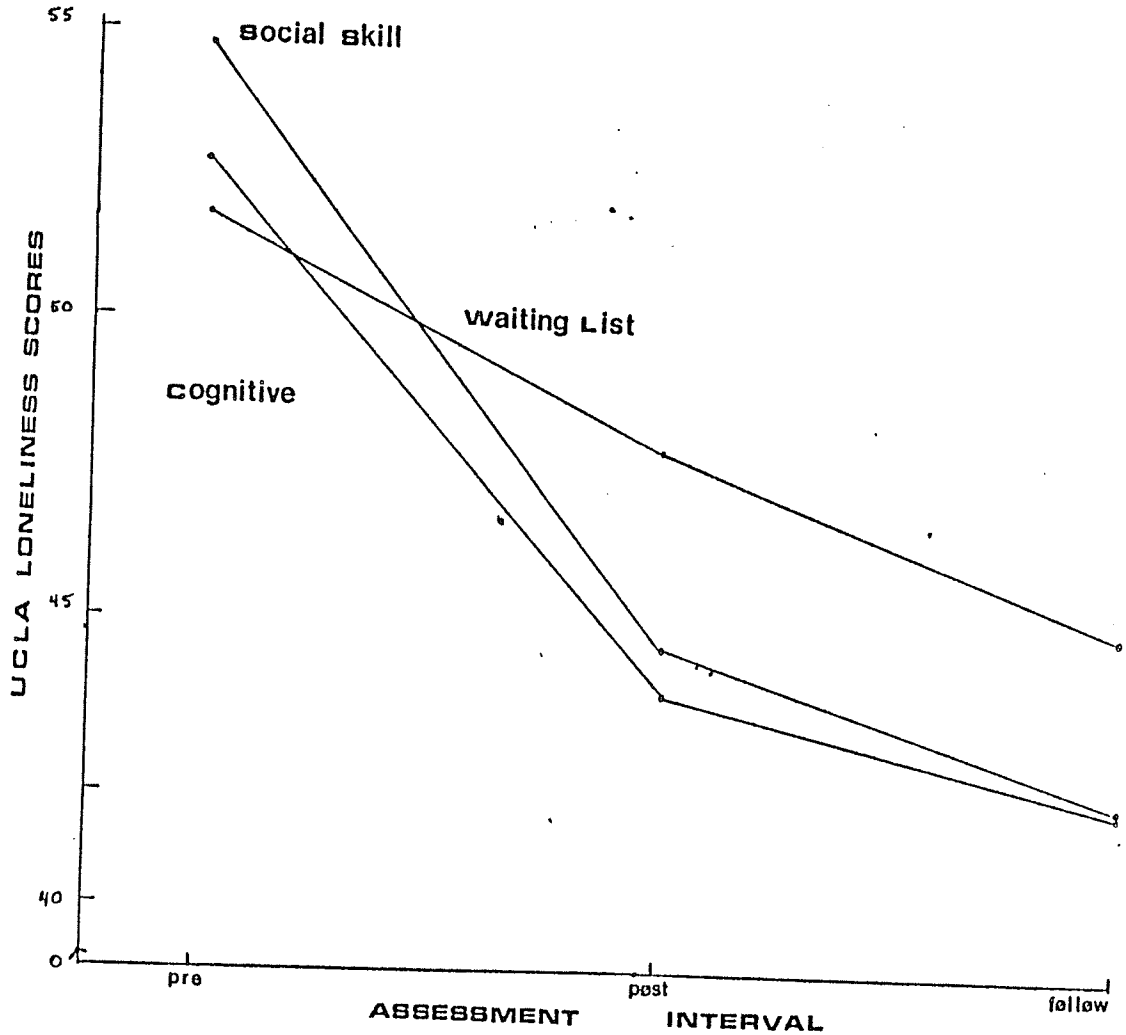

Figure 1. Changes in the level of loneliness as a function of treatment type

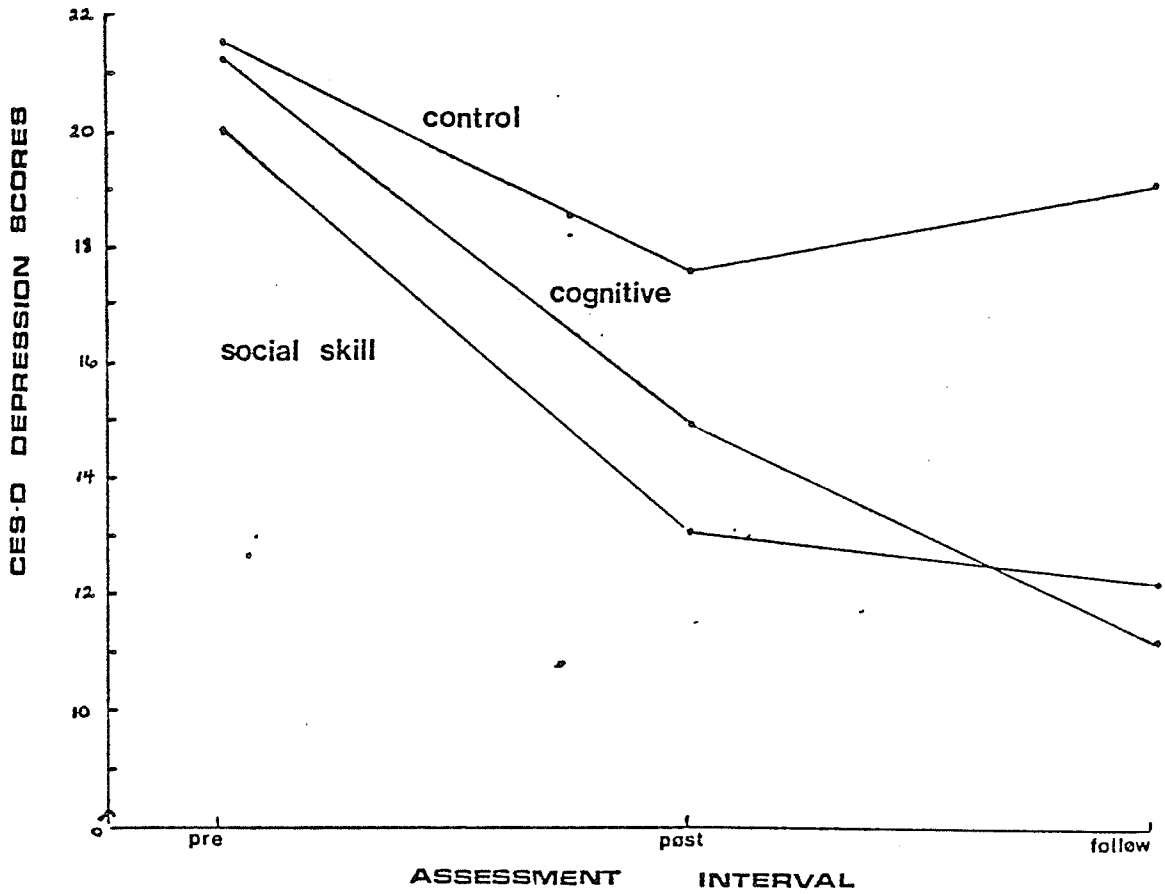

Figure 2. Changes in level of depression as a function of treatment type

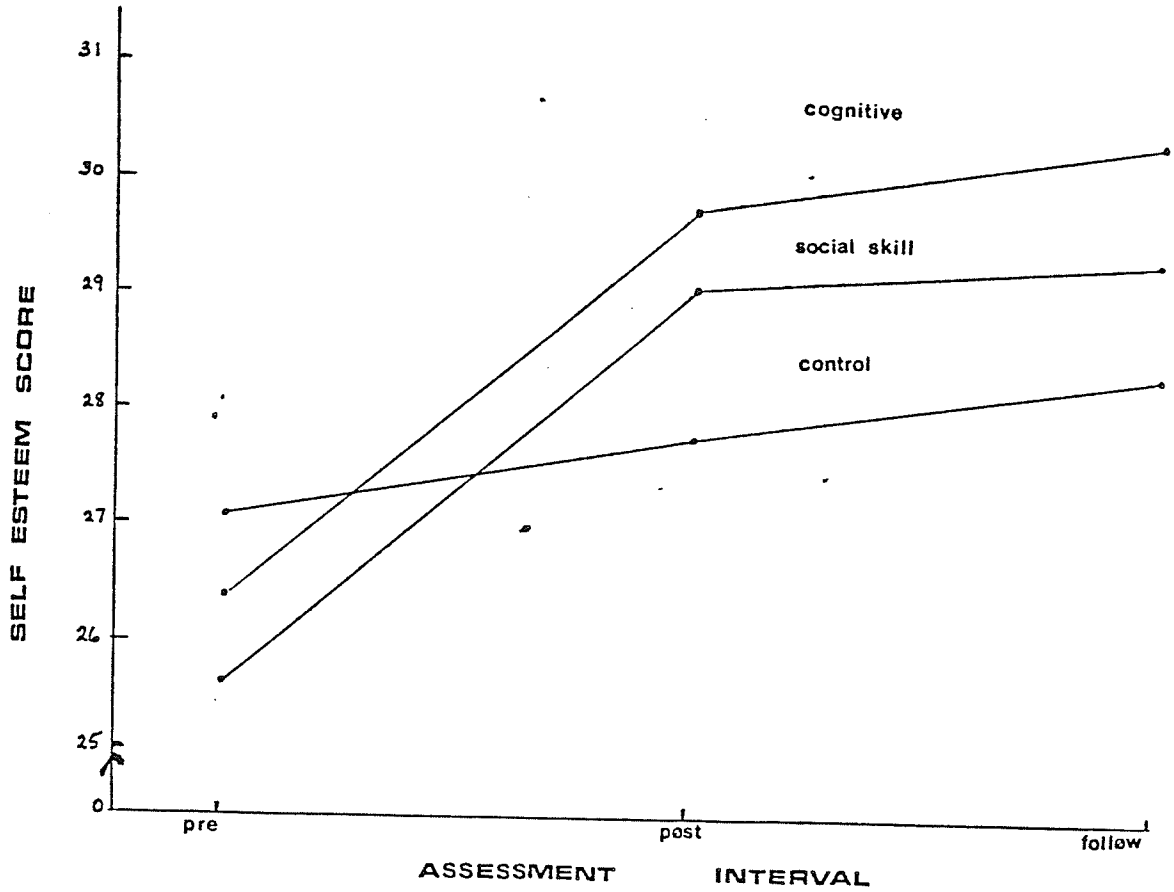

Figure 3. Change in level of self-esteem as a function of treatment type

Table 5
Standardized Discriminant Function Coefficients
Analysis of Time Main Effect

Variables	Coefficients
UCLA (Pre to Post)	-.94587
UCLA (Post to Follow-Up)	.14543
CES-D (Pre to Post)	-.09153
CES-D (Post to Follow-Up)	-.03345

between the three groups was a function of the significant two-way interaction. See Table Q4 (Appendix Q) for a summary of the multivariate tests of the questionnaire data.

The significant multivariate interaction of the treatment and time factors was explored through single degree of freedom contrasts of each treatment group to the waiting list control. Interest was focussed upon the source of the overall interaction effect, i.e., whether it was due to differences between the control group and one or both of the active treatment conditions. Rather than perform pairwise contrasts between groups on each dependent measure --thereby inflating the type I error rate, a multivariate approach was taken contrasting each active treatment group to the control. The results of those contrasts confirmed that each of the two groups of treatment subjects differed from waiting list control in their performance over time. The results of each of the multivariate between-group contrasts will be discussed in turn. As was the case for the overall multivariate analysis, the results of analyses of variance conducted on each dependent measure (univariate F's) and the standardized discriminant function coefficents will be presented in tables illustrating the significant multivariate effects.

Cognitive Restructuring versus Waiting List Control. The multivariate test of the interaction of the treatment condition (cognitive restructuring versus waiting list control) and time of assessment factors was significant (F 6,99 = 3.120, p = .008). The performance of the subjects assigned to the cognitive restructuring program differed over time as compared to that of the control subjects.

Examination of the univariate tests of the dependent variables indicated that it was the differential rate of change in scores on the UCLA Scale between post-treatment and follow-up, and the differences in rate of change between pre- and post-treatment on the Self-Esteem Scale and CES Depression Scale which distinguished the cognitive restructuring from the waiting list subjects. The discriminant analysis produced a significant function (F 6,99 = 3.120, p = .008). The standardized discriminant function coefficients assigned to the dependent variables to form the composite variable did not coincide precisely with the univariate results. As in the univariate tests, emphasis was placed upon changes in loneliness scores from post-treatment to follow-up, and on pre- to post-treatment change in depression. However, post-treatment to follow-up changes in depression, and pre- to post-treatment to follow-up changes in self-esteem were weighted in the composite variable.

The differences between the results of the univariate tests and the discriminant analysis can be attributed to the capacity of the latter to tap potentiation effects. High scores on the composite would describe individuals who showed most change in loneliness between post-treatment and follow-up, greatest decreases in depression between pre- and post-treatment and follow-up and greatest increases in self-esteem over the same interval. See Table 6 for the univariate significance test results and standardized discriminant function coefficients for this effect. Figures 1, 2 and 3 illustrate the difference in performance over time of the cognitive restructuring and control groups. Of particular interest is the trend of the cognitive restructuring group toward continued reduction in depression in the three month interval between the end of treatment and the follow-up assessment.

Table 6
Univariate Significance Test Results and
Discriminant Function Coefficients
Contrast of Cognitive Restructuring and Waiting List
Control Groups

Variable	Univariate *F*	*df*	*p*	Discriminant Coefficient
UCLA (Pre to Post)	2.907	1,104	.091	.14984
UCLA (Post to Follow-Up)	5.570	1,104	.020*	.58230
SES (Pre to Post)	4.805	1,104	.031*	.14812
SES (Post to Follow-Up)	3.600	1,104	.061	-.45043
CES-D (Pre to Post)	6.784	1,104	.011*	-.63287
CES-D (Post to Follow-Up)	.491	1,104	.485	-.69720

* $p < .05$

Social Skill Training versus Waiting List Control. The multivariate test of the interaction of the treatment (social skill training versus control) and the time factors was also significant (F 6, 99 = 2.257, p = .044). The discriminant analysis produced a significant root. The contributions of the dependent variables to the significant interaction differed in this test as opposed to the preceeding test of the contrast between cognitive restructuring and waiting list control. The differences in depression between pre- and post-treatment was not weighted in the composite variable, while the reduction in loneliness between pre- and post-treatment was weighted significantly. Those differences in the two composite variables may reflect the correlation of the pre- to post-treatment and post-treatment to follow-up changes in depression in the social skill training results. Figures 1, 2, and 3 illustrate that those subjects assigned to social skill training showed a more significant drop in loneliness over time, and demonstrated more dramatic increases in self-esteem and decreases in depression between post-treatment and follow-up, as compared to control (see Table 7). The results of those separate contrasts of each treatment group to control indicated that the overall multivariate test of the interaction of treatment (cognitive restructuring, social skill training, waiting list control) with the time factor was the result of differences over time in the performance of both treatment conditions as compared to control.

Cognitive Restructuring versus Social Skill Training. The previously discussed test of the influence of the therapist factor provided a means of testing for differences between the two active

Table 7
Univariate Significance Tests and Standardized Discriminant Function Coefficients - Contrast of Social Skill Training and Control

Variables	Univ. *F*	*df*	*p*	Coefficients
UCLA (Pre to Post)	6.502	1,104	.01*	-.341
UCLA (Post to Follow)	6.110	1,104	.02*	.500
SES (Pre to Post)	4.119	1,104	.05*	.073
SES (Post to Follow)	4.347	1,104	.04*	-.499
CSD (Pre to Post)	3.531	1,104	.06	-.291
CSD (Post to Follow)	.020	1,104	.89	-.506

* $p \leq .05$

treatment groups. The between subject factor was treatment type (cognitive restructuring versus social skill training) and the within subject factor was time of assessment (pre- and post-treatment and follow-up). The test of the interaction of treatment type and time of assessment was not significant (F 4, 58 = .405, p = .804). The changes subjects revealed in loneliness, depression, and self-esteem did not vary as a function of the type of active treatment condition to which they had been assigned. What that result meant was that neither of the two forms of treatment was more effective than the other in reducing loneliness and depression and increasing self-esteem. Each treatment strategy resulted in more dramatic reductions in loneliness and depression and more significant increases in self-esteem (maintaining after a three-month interval) than did the waiting list control experience. However, no differential effectiveness was revealed.

Changes in Fear of Negative Evaluation and Self-Monitoring Ability

Greater reductions in level of fear of negative social evaluation and greater improvement in ability to monitor social behaviour had been predicted for the two active treatment groups as compared to the control group and for the cognitive restructuring group compared to the social skill training group. In order to test that hypothesis two 2 x 3 analyses of covariance were conducted. For both, the between-subjects variable was the treatment condition factor (three levels) and the within-subject factor was the repeated measurement on the two dependent variables (post-treatment and follow-up). For the tests of the main

effect of the treatment factor in each analysis, the pre-treatment scores on the dependent measures (FNE and SMS) were used as covariates. The decision was made to test these two dependent measures separately from the measures of mood and self-esteem because the two were involved in a distinct hypothesis pertaining to cognitive distortions.

The results of the analysis performed on the subjects' scores on the SMS revealed no significant interaction between the treatment condition and time of assessment factors (F (4, 104) = .408, p = .803). The main effects of the treatment condition and time factors were also nonsignificant (F (2,103) = 1.752, p = .179; F (2,104) = .440, p = .645, respectively). No significant improvements were detected in the subjects' self-rated ability to monitor social interaction and to modify their behavior to be congruent with that of others.

The analysis of the subjects' scores on the Fear of Negative Evaluation scale (FNE) revealed no significant interaction of the treatment condition and time of assessment factors (F (4,104) = .642, p = .634). In addition, the test of the main effect of the treatment condition factor did not achieve statistical significance (F (2,104) = 1.993, p = .141). The test of the main effect of time assessment was significant (F (2,104) = 14.128, p = .000). All subjects revealed a decrease over time in level of fear of negative social evaluation (see Figure 4). However, that decrease was not more precipitous for those subjects who had experienced either of the two active treatments as opposed to waiting list control. See Table Q5 (Appendix Q) for a summary of the results of this analysis.

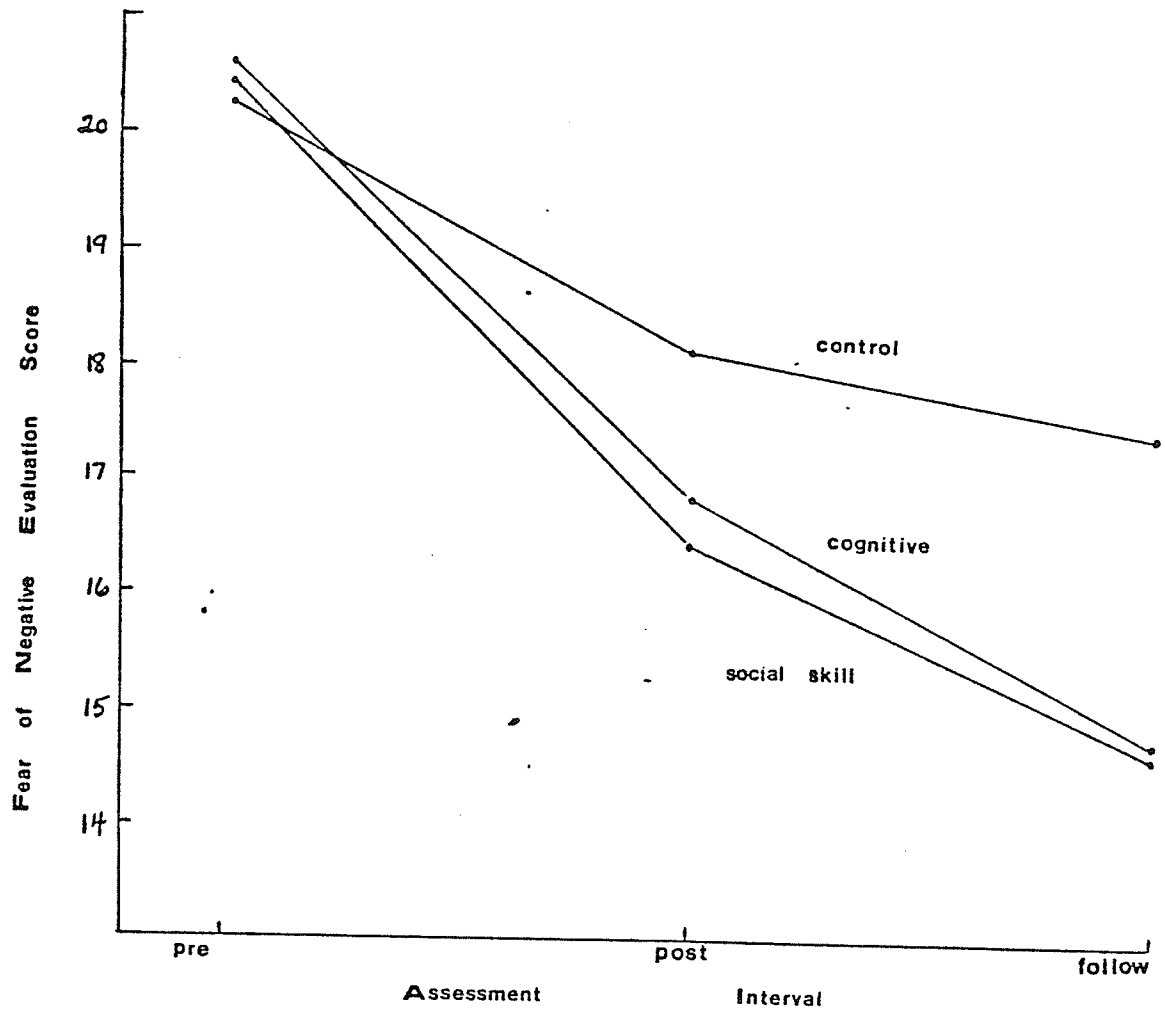

Figure 4. Change in level of fear of negative evaluation as a function of treatment type.

Between Group Difference in Videotaped Social Skills

It had been predicted that when compared to cognitive restructuring or waiting list control, those subjects assigned to the social skill training groups would demonstrate significant improvement on the behavioural indices of social skill collected at pre- and post-treatment via videotaped nine-minute role plays. In order to test that hypothesis, two 2 x 3 multivariate analyses of variance were conducted on the following dependent measures total number of utterances, total number of seconds talked in a nine-minute interval, total number of ten-second intervals of eye contact, total number of ten-second intervals in which the individual made reference to the partner's ideas or opinions, total number of ten-second intervals in whch the individual continued the topic of conversation raised by her partner, total number of ten-second intervals in which the individual expressed a personal opinion. A total of 54 ten-second intervals were sampled in the nine-minute videotaped role plays. The between-subject factor in both analyses was treatment condition (cognitive restructuring, social skill training, waiting list control). The within-subject factor was time of assessment (pre- and post-treatment).

The definitions of the behaviours were reliably used by the observer during videotape coding. Inter-rater reliabilities averaged at 95% agreement. The percent agreements obtained through randomly sampling and coding 20% of the videotaped role plays are available in Table 8. The correlation between the length of time talked recorded on the discrete event recorder by the trained observer and a random spot-checker was .96.

Table 8
Reliability Data for Coded Social Skills

Social Skill	Average Percent Agreement
Eye Contact	93.7
Topic Continuations	92.8
Partner References	97.2
Personal Opinions	97.4
Total Time Talked	.96 *

* this is a product-moment correlation

It was important to control for the confounding influence of possible pre-test differences on the six behavioral measures between groups. However, the Type I error rate would have been inflated had six analyses of covariance been performed. Instead, two multivariate analyses of variance were performed, one on the pre-test scores on the six dependent measures and one on the post-test scores.

No significant differences were detected between the three groups of subjects at pre- or post-treatment assessment (F 12,212 = 1.666 p = .076; F 12,212 = 1.436, p = .151, respectively). No differences were detected in the subjects' performance of the six social skills as a function of the treatment condition to which they had been assigned. In addition, the subjects revealed no significant change in their performance of the social skills over the course of the study. See Table Q6 (Appendix Q) for a summary of the results of the two analyses.

Table 9 contains the means and standard deviations of the three subject groups on the social skills at pre- and post-treatment. As the information in the table indicates, the within-subject variation in scores on the six dependent measures was so large that the capacity to detect between-group differences was seriously limited.

A Comparison of Reported Social Interaction at Three Assessment Intervals

The subjects assigned to the social skill training and cognitive restructuring groups were expected to demonstrate a particular pattern of changes in reported social activities when contrasted with those assigned

Table 9
Means and Standard Deviations of Subject Groups
on Six Behaviours at Pre- and Post-Treatment

	Subject Groups											
	Social Skill Training				Cognitive Restructuring				Waiting List Control			
	Mean		Std. Deviation		Mean		Std. Deviation		Mean		Std. Deviation	
Variables	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Number of Utterances	44.38	43.81	12.01	11.47	45.58	46.74	11.59	12.96	48.10	49.49	9.77	13.45
Seconds Talked	194.59	197.32	80.18	83.24	199.32	218.84	76.93	70.73	215.46	205.15	69.91	71.42
Intervals of Topic Continuation	37.41	37.94	7.29	8.67	36.34	39.76	8.68	8.70	40.15	40.03	5.90	6.86
Intervals of Partner Reference	9.68	10.11	4.57	5.15	9.32	10.34	4.84	5.73	7.72	8.84	4.88	5.75
Intervals of Personal Opinion	5.27	4.86	3.52	4.63	5.24	6.87	3.47	4.06	4.31	4.85	2.54	3.37
Intervals of Eye Contact	45.54	47.00	6.74	8.68	42.61	45.89	7.41	7.56	44.03	45.62	6.58	7.51

to waiting list control. Specifically the active treatment subjects were expected to demonstrate significant increases in time spent with family, close friends, and casual friends (particularly those of the same sex), increases in the amount of time spent in high intimacy contacts, and decreased time spent alone and in low intimacy interactions.

To investigate that hypothesis, two multivariate analyses of variance were conducted on two sets of the data obtained from the interaction diaries completed by all subjects at pre- and post-treatment and follow-up. The between subject factor for those analyses was treatment condition. The within subject factor was time of assessment. In the first analysis the dependent measures were the number of minutes daily that the subjects reported spending in high, medium and low intimacy social activities at pre- and post-treatment and follow-up.

Although subjects were randomly assigned to groups, examination of the cell means at pretest on the intimacy rating data, suggested that the groups differed (see Table 10). The subjects assigned to social skill training and cognitive restructuring rated fewer of their interactions as medium in intimacy at pre-treatment than did those assigned to waiting list control. Those assigned to social skill training rated fewer of their interactions as low in intimacy at pre-test than did those assigned to cognitive restructuring or waiting list control.

Therefore, for the test of the main effect of the treatment condition factor only, subjects' pre-treatment ratings of minutes in high, medium, and low intimacy interactions were used as covariates for the post-treatment and follow-up ratings (a 2 x 3 multivariate analyses

Table 10
Group Means and Standard Deviations on
Intimacy Rating Data

Variables	Social Skill Training x	Social Skill Training Std. Dev.	Cognitive Restrucutirng x	Cognitive Restrucutirng Std. Dev.	Control x	Control Std. Dev.
Minutes Daily High Intimacy Interactions						
Pre	80.00	100.53	77.42	107.55	72.63	83.01
Post	150.00	140.25	57.10	88.78	76.58	101.72
Follow-Up	120.00	173.31	101.61	130.46	61.58	79.20
Minutes Daily in Medium Intimacy Interaction						
Pre	149.09	109.33	152.90	123.29	178.42	95.88
Post	191.91	158.28	147.10	123.29	195.79	131.37
Follow-Up	211.82	151.11	175.16	140.95	201.32	153.75
Minutes Daily in Low Intimacy Interaction						
Pre	150.91	138.59	179.03	115.54	187.11	146.38
Post	104.55	115.49	185.81	139.09	158.68	173.24
Follow-Up	92.73	102.93	202.26	179.66	210.79	167.90

of covariance). The results of the analysis indicated that at post-treatment and follow-up the three groups differed significantly in their ratings of amount of time spent in high intimacy interactions (F (2,98) = 3.978, p = 022). The subjects also differed in the amount of time spent in low intimacy interactions as a function of the group to which they had been assigned (F (2, 98) = 6.159, p = .003). No group differences were detected on the amount of time spent daily in interactions rated as of medium intimacy (F (2, 98) = 1.217 p = .300).

Figure 5 illustrates the differences between the groups on the intimacy ratings. When the influence of pre-treatment differences was controlled, the three groups of subjects differed in time spent daily in high and low intimacy interactions at post-treatment and follow-up. After experiencing social skill training subjects rated more of their daily interactions as high in intimacy and fewer as low in intimacy than did those who had experienced either cognitive restructuring or a waiting list control condition. Social skill training had greater beneficial impact upon subjects' perceptions of the level of intimacy of their interactions.

For the tests of the effects of the time factor and the interaction of the treatment condition and time factors, all three levels of the time of assessment factors were included. Those multivariate tests did not achieve significance (F (6,94) = 1.949, p = .081; F (12,188) = 1.599, p = .095, respectively). See Table Q7 (Appendix Q) for the summary of the multivariate test of the intimacy ratings data.

Figures P1, P2, and P3 (see Appendix P) illustrate the observed

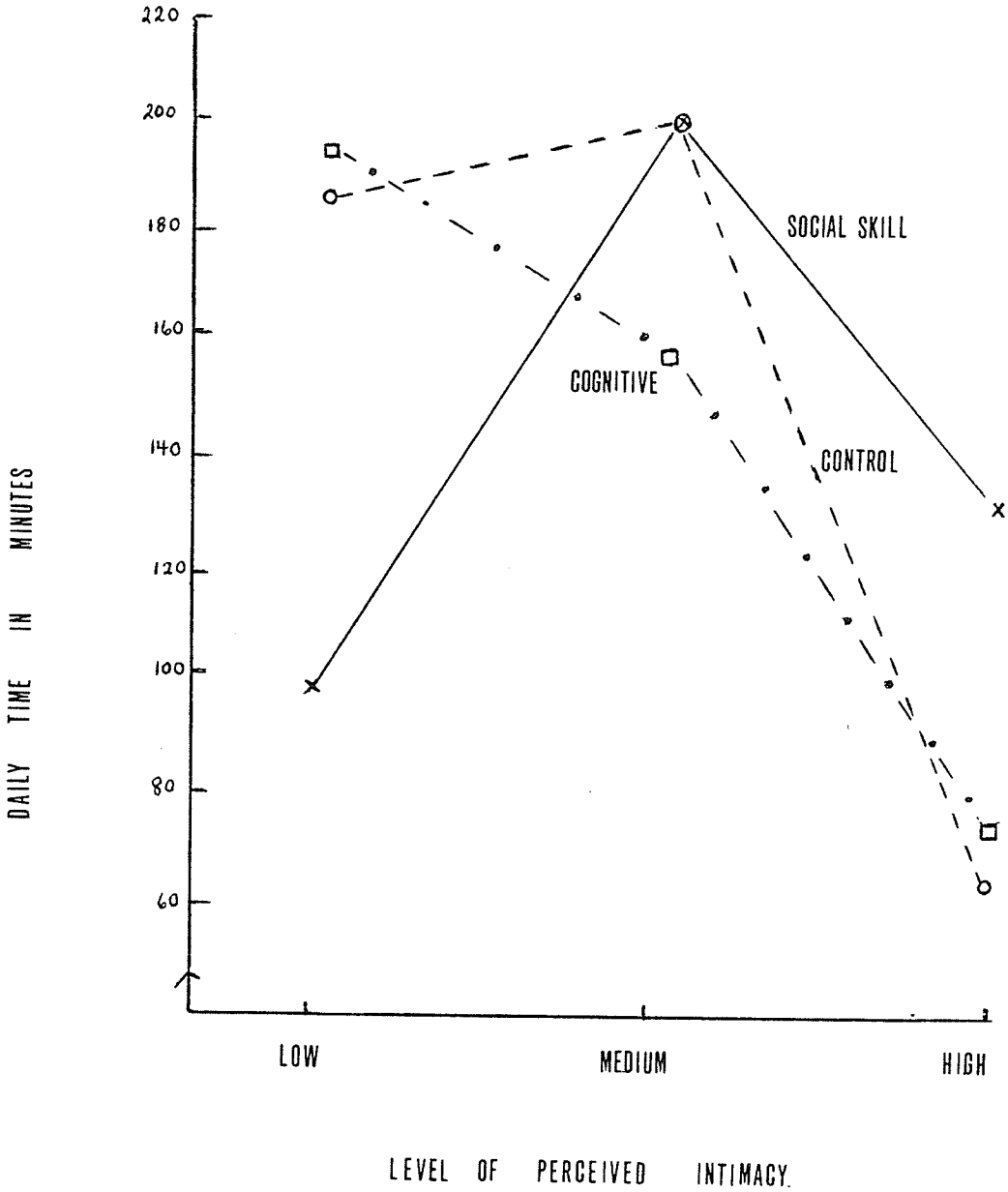

Figure 5. Differences between the three subject groups on the measures of time in high, medium, and low intimacy interactions.

trend toward increases in time spent in high intimacy and medium intimacy and decreases in time spent in low intimacy interactions. Figure P1 demonstrates the trend toward an interaction between the treatment condition and time of assessment factors. The cognitive restructuring subjects revealed an increase in time spent in high intimacy interaction between post-treatment and follow-up which was not demonstrated by either of the other two subjects groups.

The absence of a significant effect for change over time may have been attributable to the large within-subject variation on the dependent measures. Table 10 contains the means and standard deviations of the three subject groups on the three dependent measures at pre- and post-treatment and follow-up. The capacity to detect between-group differences on the dependent measures attributable to the independent variables was greatly limited by the very large inter-individual variation on the dependent measures.

Finally, a 3 x 3 multivariate analysis of variance was performed on the following subset of dependent variables: total time per day spent alone, total time daily spent with a same-sex person, total time daily with a group of females, with relatives and with close friends. Those variables were assessed at pre- and post-treatment and at three-month follow-up. The test of the multivariate interaction between the treatment condition and time of assessment factors was not statistically significant (F 20,180 = .838, p = .665). The tests of the main effects of the time of assessment and treatment condition factors were also non-significant (p = .308, and p = .833 respectively). It was therefore

not possible to reject the null hypothesis that no differences would be detected between the treatment and control groups in scores on the interaction diary indices of social contacts. Neither social skill training nor cognitive restructuring contributed to a reduction in time spent alone, or to increases in time spent with other women, or with close friends or relatives. Those subjects assigned to the two treatment conditions showed no significant differences in scores on those dependent measures compared to the waiting list control subjects. None of the participants in the investigation demonstrated significant changes on those dependent measures. The summary table of the multivariate analysis (Table Q8) is available in Appendix Q.

Changes in the Coping Styles of Treatment and Control Group Members

The subjects assigned to the two treatment conditions were expected to report change in their chosen ways of coping with loneliness. In contrast to the waiting list control subjects, those who had experienced either treatment would reveal increased use of social interaction and decreased use of sad passivity as coping styles.

In order to test that hypothesis, a 3 x 3 multivariate analysis of variance was conducted on the following four dependent measures: frequency of use of active solitude, positive thinking, sad passivity, and social interaction as means of coping with loneliness. The between-subject factor was treatment condition and the within-subject factor was time of assessment.

The multivariate test of the interaction of the treatment condition

and time of assessment factors was not significant (F 16,186 = .950, p = .514). The changes subjects reported in the frequency with which they used the four coping styles did not vary as a function of the treatment condition to which they had been assigned. The test of the main effect of the treatment factor was also nonsignificant (F 8,197 = .765, p = .634). The three groups of subjects (social skill training, cognitive restructuring and waiting list control) did not differ significantly from one another in their reported use of the four coping methods.

The test of the main effect of time of assessment did achieve significance (F 8,93 = 2.927, p = .006). The discriminant analysis produced a significant root which accounted for 27% of the variability in the discriminant space. As Table 11 indicates, the two dependent measures which were weighted most heavily in the composite variable were changes in use of social interaction and active solitude over time. Over time all subjects tended to report increases in the frequency with which they used social interactions to cope with loneliness and decreases in the frequency with which they resorted to active solitude. See Table Q9 (Appendix Q) for the summary table of this analysis.

Causal Attributions for Successful Social Experiences

The prediction was made that in contrast to control subjects, the subjects who had been assigned to social skill training and cognitive restructuring would show a movement toward more internal stable (personality) and internal unstable (effort) attributions for social success. In addition the change exhibited by the cognitive restructuring

Table 11
Time Main Effect - Coping Styles - Univariate
Tests and Discriminant Analysis Results

Coping Style Variables	Univ. *F* (*df* = 1,100)	*p*	Coefficients
Sad Passivity 1	.488	.486	-.00659
Sad Passivity 2	.048	.827	.12656
Social Interaction 1	16.048	.000*	-.74782
Social Interaction 2	2.345	.129	.36247
Active Solitude 1	.389	.534	-1.20030
Active Solitude 2	1.344	.249	-1.34274
Positive Thinking 1	3.143	.079	-.01585
Positive Thinking 2	2.620	.109	.37558

* $p < .01$
1 = Pre- to Post-Treatment Contrast
2 = Post-Treatment to Follow-up Contrast.

subjects was expected to be most significant.

In order to test that hypothesis a 3 x 3 (treatment x time of assessment) multivariate analysis of variance was conducted on the following dependent measures: subjects' ratings of likelihood of making external stable, external unstable, internal stable, and internal unstable attributions to explain social success. The attribution measure tapped success in four kinds of relationships: romances, close friendships, dating and casual friendships. In order to increase the power of the test to detect significant between-group differences, the number of dependent measures was reduced for the analysis by creating an average score summing across type of relationship for each of the classes of causal attribution (Buhrmester, 1985).

The test of the interaction of the treatment condition and time of assessment factors did not achieve significance (F 16,165 = .598, p = .882), nor did the test of the main effect of the treatment condition factor (F 8,174 = 1.513, p = .156). The test of the main effect of time of assessment (pre-, post- and three-month follow-up) was significant (F 8,83 = 3.111, p = .004). All subjects showed significant changes over time in the causal attributions they made for social success. However, the nature of those changes did not vary as a function of the treatment condition to which a subject had been assigned. The three groups (cognitive restructuring, social skill training and waiting list control) all changed equally in response to the attribution measure. The null hypothesis could not be rejected. See Table Q10 (Appendix Q) for the summary statistics of this analysis.

The nature of changes in causal attribution which were described in the significant time main effect are worthy of consideration. The discriminant analysis produced a significant root which accounted for 24% of the total discriminatory space. The standardized discriminant function coefficients for that composite variable are contained in Table 12. The four dependent variables which contributed significantly to the multivariate main effect were changes in frequency of external stable attributions between pre- and post-treatment and changes in the frequency of internal stable and unstable attributions between pre- and post-treatment. Over time subjects increasingly attributed social successes to stable features of the environment and to the amount of effort they had expended. Over the same time period, the subjects made external, unstable (luck) and internal stable (personality) attributions less and less frequently.

Causal Attributions for Unsuccessful Social Interactions

It was predicted that in contrast to the control group the subjects assigned to either of the active treatment conditions would show a significant reduction in the frequency of internal stable attributions for failure and a significant increase in the variety of causal explanations used for failure experiences. In addition, the cognitive restructuring group was expected to demonstrate greater changes in those directions than was the social skill training.

In order to test those hypotheses, a 3 x 3 (treatment x time of assessment) multivariate analysis of variance was conducted. The dependent measures were the strength of subject ratings of external

Table 12

Time Main Effect - Attributions for Success

Univariate and Multivariate Results

Dependent Variables	F	df (1,90)	p	Standardized Function Coefficients
External Stable 1	6.899		.010	-.87714
External Stable 2	.007		.933	-.26177
External Unstable 1	.005		.939	.54738
External Unstable 2	1.039		.311	-.22377
Internal Stable 1	1.144		.288	.54801
Internal Stable 2	.000		.993	-.16468
Internal Unstable 1	6.799		.011	-.60353
Internal Unstable 2	1.063		.305	.42499

1 - Contrast of pre- to post-treatment

2 - Contrast of post-treatment to follow-up

stable, external unstable, internal stable, and internal unstable attributions for failure experiences. The reduction procedure described in the preceeding section of this report was followed to sum across types of relationship.

The test of the interaction of the treatment condition and time of assessment factors was not significant (F 16,182 = .910, p = .559). However, the test of the time main effect was significant (F 8,91 = 3.285, p = .002). The discriminant analysis produced a significant root to which could be attributed 23% of the total discriminatory space. The standardized discriminant function coefficients and univariate significance tests for the dependent measures are included in Table 13. As they indicate, over time all subjects tended to engage in behavioral self-blame (effort attributions) for failure experiences and tended to more frequently attribute failure to stable factors in their environment. However, the discriminant function indicated that between post-treatment and follow-up, those changes in attributional style began to reverse. Figures 6 and 7 illustrate the pattern of change over time of the three groups on the external stable and internal unstable attributions for social failure. Between pre- and post-treatment all three groups increasingly blamed social failures on stable characteristics of the environment and on lack of effort on their own parts. Then between post-treatment and follow-up assessment all three groups showed decreases in the frequency with which they chose those two attributional styles.

The multivariate test of the main effect of the treatment condition factor was significant (F 8,190 = 2,709, p = .008). The discriminant analysis produced a significant root which accounted for 71.4% of the total discriminatory power of the group of dependent measures. The

Table 13

Time Main Effect - Attributions for Failures

Univariate and Multivariate Results

Measures	F	df (1,98)	p	Discriminant Function Coefficients
External Stable 1	1.447		.232	-.16693
External Stable 1	12.157		.001*	.62079
External Unstable 1	.126		.724	.02992
External Unstable 2	.036		.849	-.21436
Internal Stable 1	3.374		.069	.21560
Internal Stable 2	1.485		.226	-.38842
Internal Unstable 1	10.514		.002*	-.42413
Internal Unstable 2	3.834		.053	.33627

1 = Contrast of pre- to post-treatment

2 = Contrast of post-treatment to follow-up

* $p < .01$

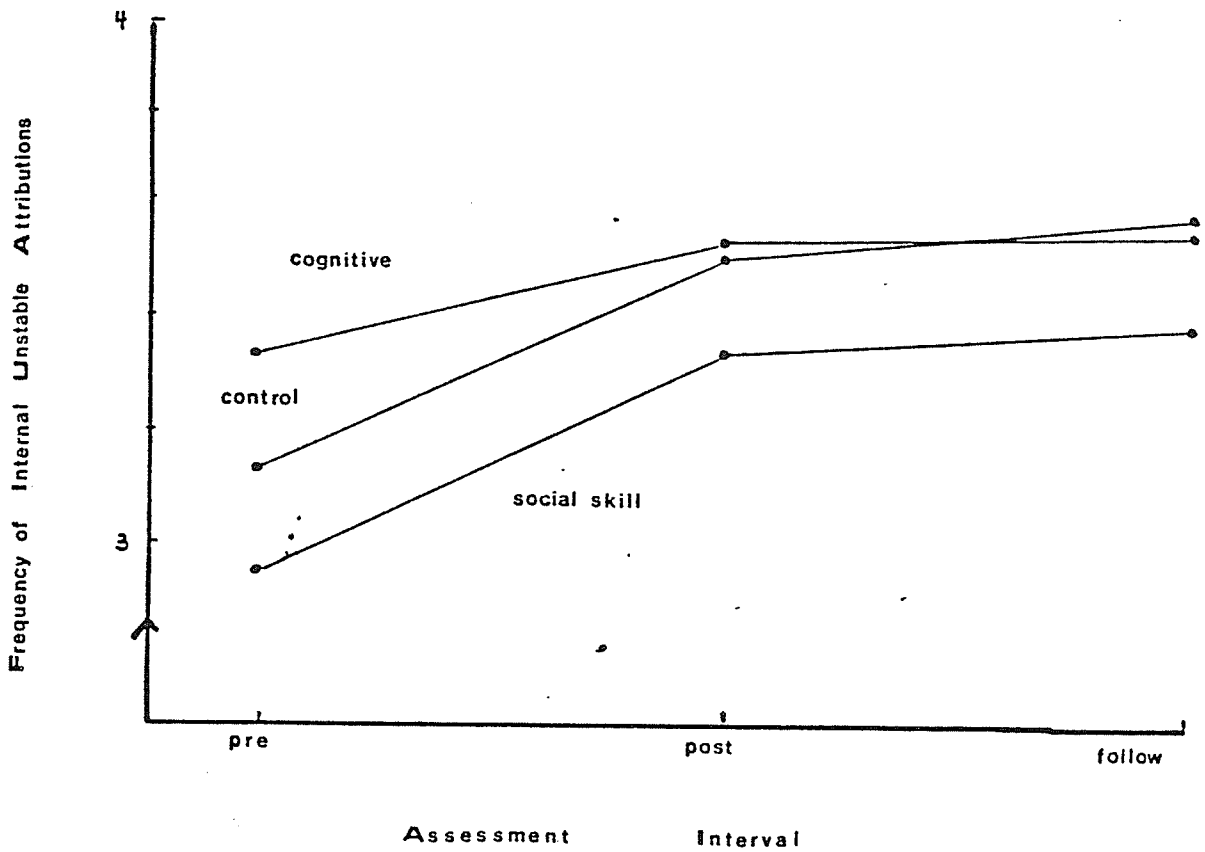

Figure 6. Changes over time in frequency of internal, unstable attributions for social failures

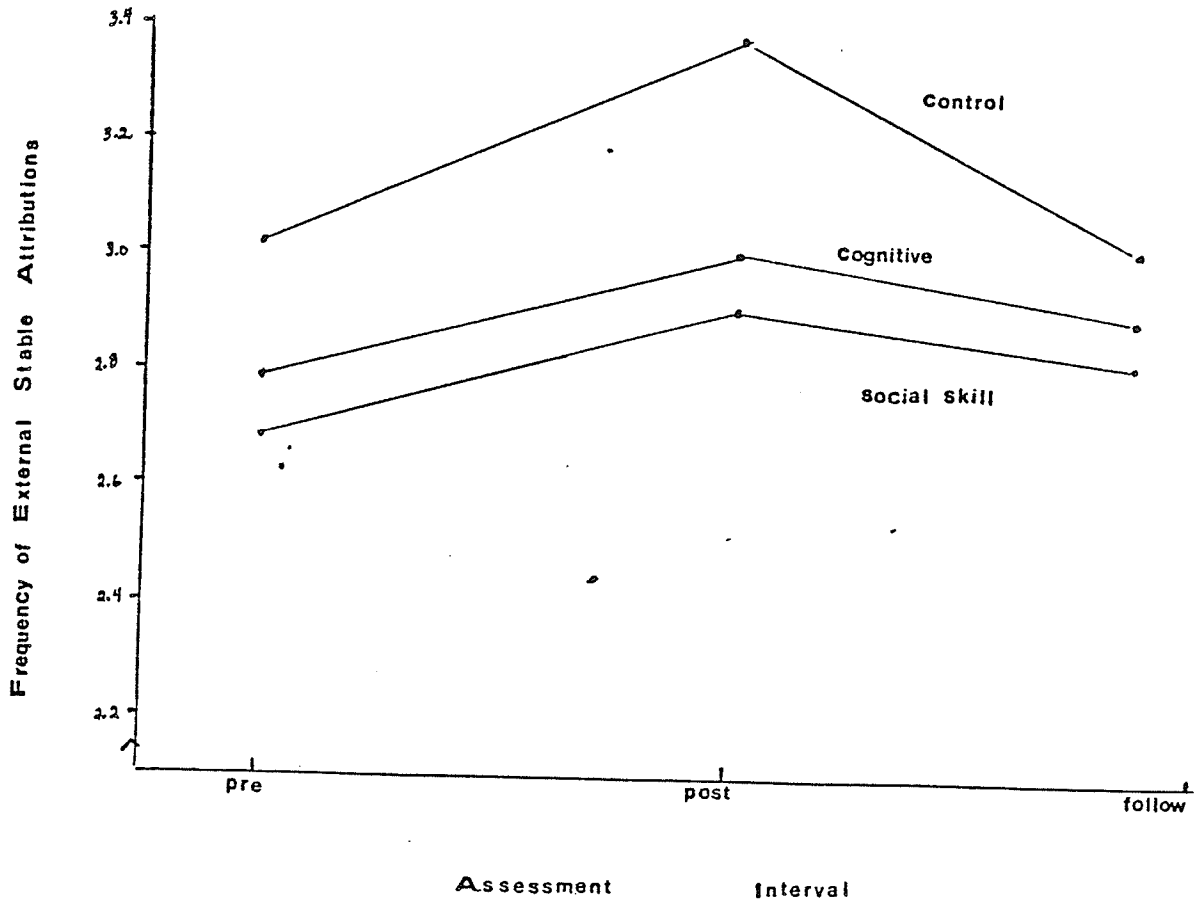

Figure 7. Changes over time in frequency of external, stable attributions for social failures

manner in which the three groups of subjects (social skill training, cognitive restructuring, and waiting list control) were distinguished by their performance on that composite variable is illustrated in Figure 8. The function distinguished the cognitive restructuring group from the social skill training and waiting list control conditions. Averaged across the time of assessment (summing pre- and post-treatment and follow-up measurement) the cognitive restructuring group performed differently than did the other two groups. Consideration of the discriminant function coefficients described the manner in which the cognitive restructuring group differed. Those in cognitive restructuring tended to attribute social failure to lack of effort more so than they did to luck or their own personality inadequacies. That treatment main effect was not the result of spurious pre-treatment between-group differences. A multivariate analysis of variance conducted on the pre-treatment failure attribution data failed to detect significant differences between the three subject groups (F 8, 202 = 1.813, p = .076).

The significant main effects of time of assessment and of treatment condition indicated (1) that all subjects revealed the same direction of change in attributional style over time and (2) that the cognitive restructuring subjects as a group differed from the other two groups at each assessment interval. See Table Q11 (Appendix Q) for the summary statistics of this analysis.

Changes in Perceived Social Skill

A greater improvement in self-reported social competency was predicted for the two treatment conditions when compared to the waiting list control condition. In order to test that hypothesis a 3 x 3

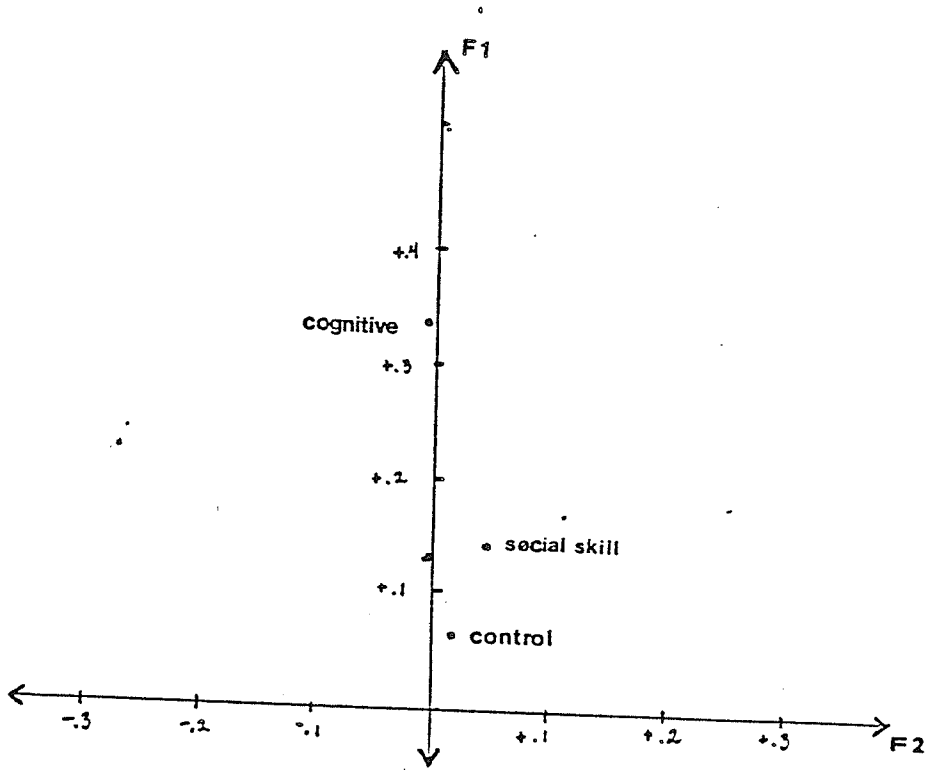

Figure 8. Performance of the subject groups on the significant discriminant function associated with the significant main effect of time of assessment

multivariate analysis of variance was conducted. The between-subject factor was treatment condition (social skill training, cognitive restructuring, waiting list control). The within-subject factor was the repeated assessment of subjects on the dependent measures at three intervals pre- and post-treatment and at three-month follow-up. The dependent measures for the analysis were subject scores on measures of five friendship skills: relationship initiation, assertiveness, self-disclosure, emotional support of others and conflict resolution.

The test of the interaction of the treatment condition and time of assessment factors was not statistically significant (F 20,188 = .646, p = .874). The test of the main effect of the treatment condition factor also did not achieve significance (F 10,198 = .467, p = .910).

The main effect of the time of assessment factor was significant (F 10,94 = 4.687, p = .000). Over time all subjects revealed changes in their self-perceptions of social ability. Examination of the standardized discriminant function coefficients provided clarification of the nature of that change. Over time all subjects rated themselves as more able to initiate social interactions, more able to be supportive of friends, and more willing to self-disclose to a friend. The treatment subjects did not differ from the control subjects with regard to that pattern of change. See Table Q12 for the cell means of the three groups on each of those variables at pre- and post-treatment and follow-up. Figures 9, 10 and 11 illustrate the performances of the three groups at pre- and post-treatment and follow-up on perceived ability to initiate relationships, to self-disclose, and to be emotionally supportive. The graphs support the increases between pre- and post-treatment of all subjects on the three dependent measures.

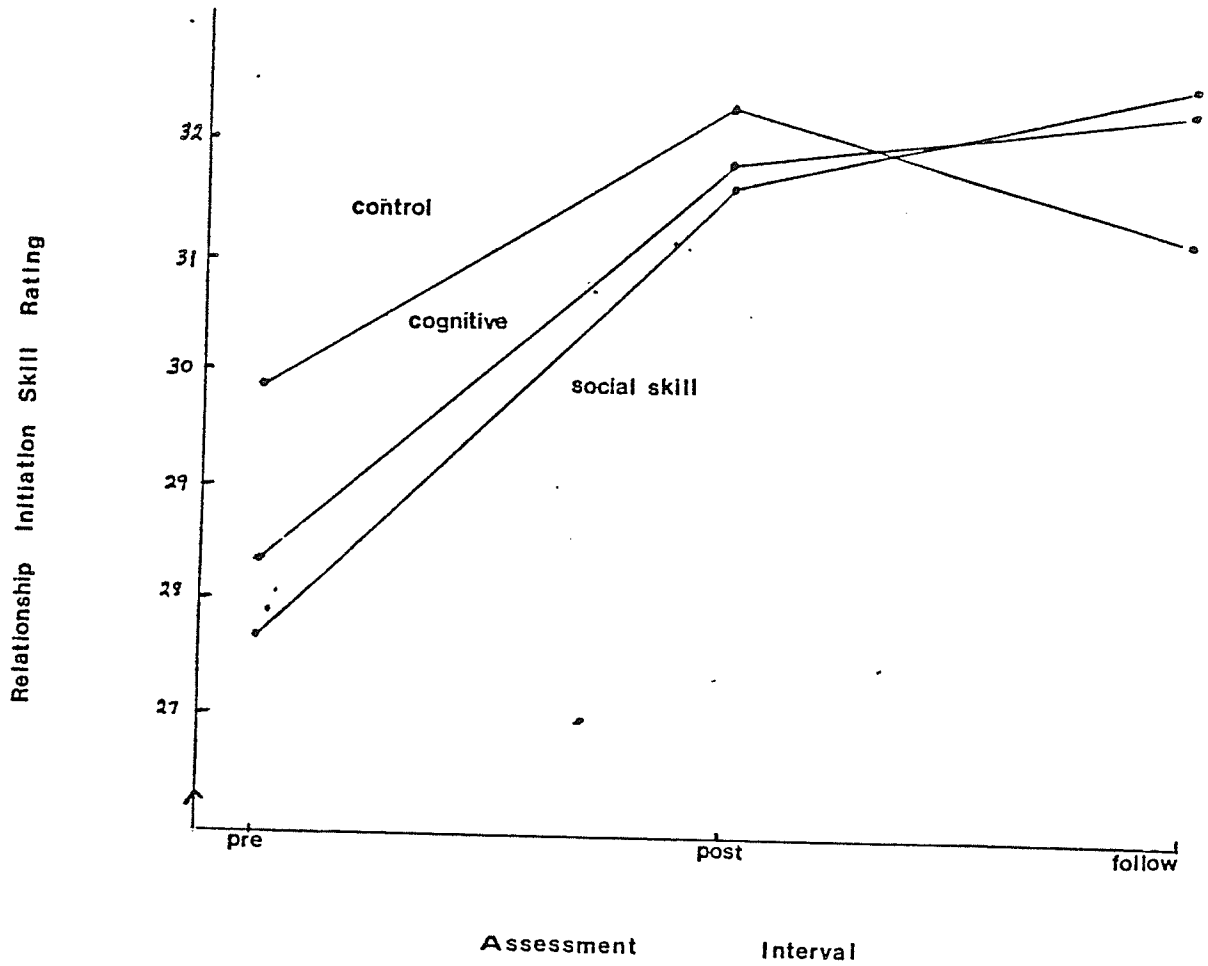

Figure 9. Changes over time on rated competency at initiating relationships

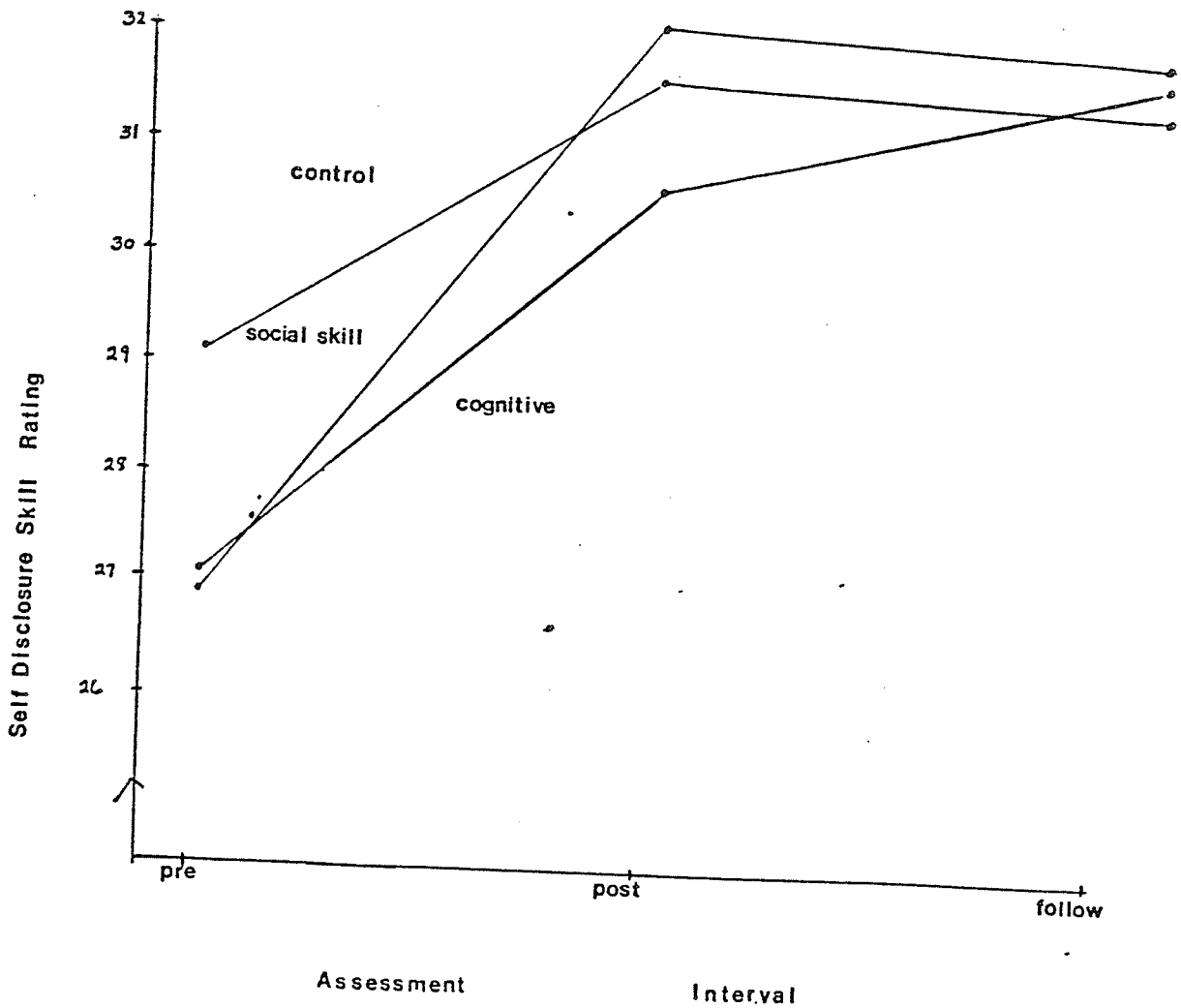

Figure 10. Changes over time on rated competency at self-disclosure

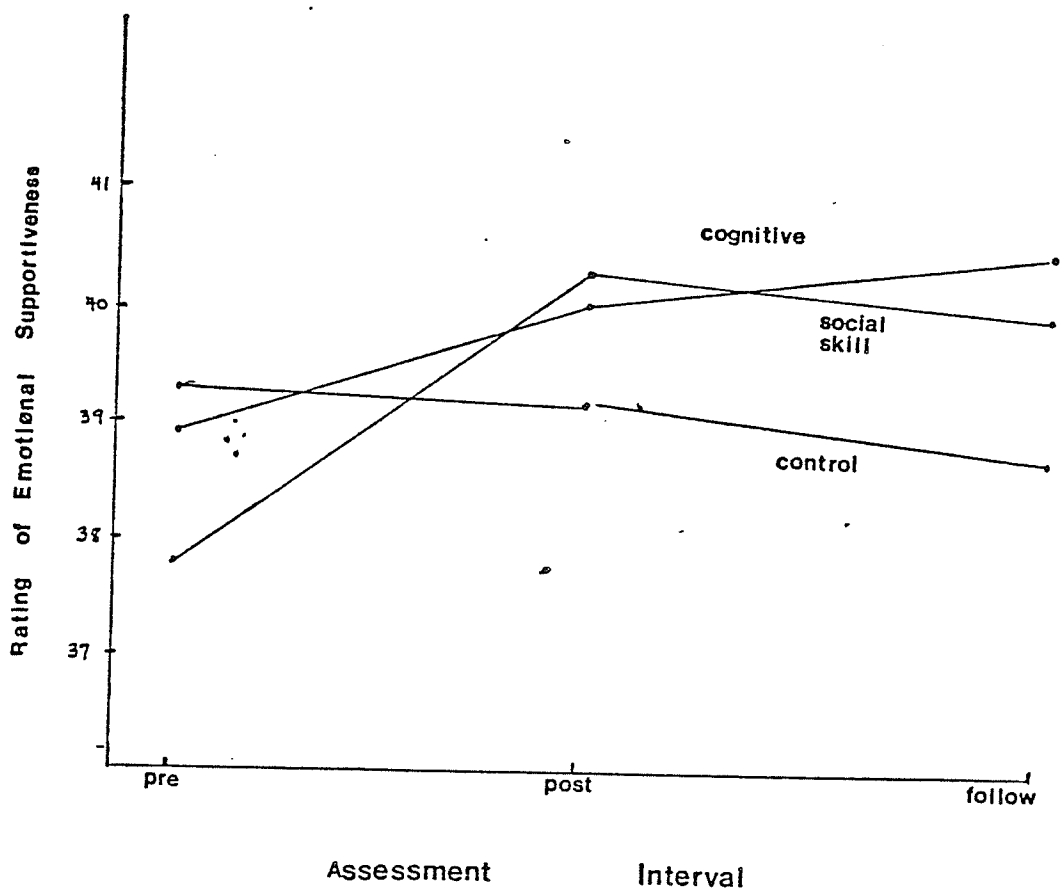

Figure 11. Changes over time on rated competency at emotional support-giving

The slope of the graphs between post-treatment and follow-up help to clarify the standardized discriminant function coefficients. By follow-up subjects tended to reveal a small decline in their self-reported skill at performing those behaviours. See Table Q13 (Appendix Q) for the summary statistics of this analysis.

Patterns of Reported Behaviour Change Associated with Decreases in Loneliness

The results of the multivariate analysis of variance conducted on the self-ratings of social skill and on the coping style data pointed to significant changes in the predicted direction on both sets of measures by all subjects. All subjects reported increased competency at initiating interactions and at being emotionally supportive of friends. All subjects reported increased use of active coping methods. Finally, all subjects reported decreases in loneliness over the same time interval. Interest was then focussed upon the possible connection between changes on those dependent measures. Did the data support the contention that reductions in loneliness were associated with increases in social competency and greater use of active coping strategies?

In order to explore that hypothesized relationship, a multiple regression analysis was performed. The predictor variables were pre- to post-treatment changes in subjects' ratings of social skill in five areas (relationship initiation, assertiveness, self-disclosure, emotional support, and conflict resolution) and in their ratings of how often they used four coping styles to deal with loneliness (active solitude, sad

passivity, positive thinking, social interaction). The dependent measure was pre- to post-treatment change in score on the UCLA Loneliness Scale. The decision to make use of difference scores was made with an awareness that the limitations of the use of change scores apply to analysis of variance designs (Huck & McLean, 1973; Linn & Slinder, 1977). When pre-test scores are used to calculate a difference score and those difference scores are used in an analysis of variance, results are likely to be influenced by the negative correlation between pretest scores and difference scores. For the purposes of the multiple regression interest focussed not on the magnitude of the change between pre- and post-treatment but upon the relationship between changes pre- to post-treatment on three sets of variables. With the implications of the use of difference scores in mind, the results of the regression must be interpreted with caution. The forward-entry (F to enter) solution was employed. The significance level for entry of a variable into the regression formula was set at .05.

An overall multiple r of .507, p = .0007 was found (see Table Q14 - Appendix Q). Two variables emerged as significant: changes in frequency of use of social interaction as a coping style and changes in perceived ability to be emotionally supportive. Women who reported increased ability to be emotionally supportive and more frequent use of social interaction to cope with loneliness tended to report greater reductions in loneliness.

The Influence of Pretreatment Perceived Social Skill upon Response to Social Skill Training versus Cognitive Restructuring

The social skill training program was expected to be more effective

than the cognitive restructuring program for those subjects who began the study rating themselves as having more severe social skill deficits. In order to test that hypothesis a 3 x 3 x 4 multivariate analysis of variance was conducted on the following dependent measures: UCLA scores, CES-Depression scores, and Self-Esteem Scale scores (SES). The between subject factors were treatment (social skill training, cognitive restructuring, waiting list control), and initial rating of social skill (Relationship Skill). The latter was created by dividing the subjects into levels on the basis of their initial scores on the friendship dimensions of the Reactions to Social Situations Scale (RSS). The scores of each subject at pre-treatment on the relationship initiation, self-disclosure, emotional support, assertiveness and conflict resolution skill areas were averaged to form a single pre-treatment score for each subject. The distribution of those scores was examined and on that basis the following levels of the relationship skill factor were created: Level 1 corresponded to those who scored between 1 and 27 on the scale; Level 2 to those who scored from 28 to 31, Level 3 to those who scored from 32 to 35; and Level 4 to those who scored from 36 to 43. Higher scores on the scale represented greater self-ratings of perceived social skill. The within subject factor was time of assessment (pre- and post-treatment, and three month follow-up).

The test of the three-way interaction of the treatment condition, relationship skill, and time of assessment factors was not significant ($\underline{F}$ 36,332 = .625, $\underline{p}$ = 956). The null hypothesis could not be rejected. The subjects did not respond differently to the two active treatments as

a function of their initial perceived social skill. The test of the interaction of the time of assessment and relationship skill factors was not significant (F 18,212 = 1.246, p = .227). However the test of the interaction of the treatment condition and relationship skill factors and the test of the main effect of the relationship skill factor were significant (F 18,221 = 1.933, p = .015; F 9,189 = 5.233, p = .000). Although the change in scores on the dependent measures did not vary as a function of initial relationship skill, subjects did differ in their scores on the dependent measures as a function of relationship skill category. That main effect represents the strong correlation (discussed earlier) between high scores on perceived relationship skills and level of loneliness (r = .51) (see Tables P1, P2, P3, P4, P5, P6 Appendix P). The greater the individual's preliminary perceived social competency the lower the level of loneliness. The subjects in the four levels of relationship skill began the study with different levels of loneliness and self-esteem and continued to exhibit those differences over the course of study.

Those differences on the UCLA scale and the SES between the individuals in the four relationship skill levels was also influenced by the treatment condition to which an individual had been assigned. Figure S1 (Appendix S) illustrates the differences in scores on the UCLA scale (averaged across time) for each category of relationship skill as a function of treatment condition. The figure illustrates that those who began treatment rating themselves as socially competent (Level 4) and who were assigned to the cognitive restructuring program scored lower on the UCLA

Loneliness scale than did the socially competent who were assigned to waiting list control or social skill training. Those who rated themselves at an intermediate level of social competence (Level 3) at pre-treatment and were assigned to social skill training scored lower on the UCLA Loneliness scale than did the comparable group assigned to cognitive restructuring or control. See Table Q15 for the summary statistics of this analysis.

The Influence of Pre-Treatment Score on Fear of Negative Evaluation Scale upon Response to Cognitive Restructuring versus Social Skill Training

Those subjects who began the study reporting more severe fear of receiving negative social evaluation were expected to respond most to cognitive restructuring. To test that hypothesis a 3 x 3 x 3 multivariate analysis of variance was conducted on the subject scores on the UCLA Loneliness scale, the CES Depression Scale, and the Self-Esteem Scale (SES). The two between subject factors were treatment condition (social skill training, cognitive restructuring, waiting list control), and level of fear of negative social evaluation at pre-treatment. Subjects' scores on the FNE at pretreatment were used to assign them to three levels based on the distribution of scores. Level one of the factor corresponded to those with scores of one to 17; level two to those with scores of 18 to 25; and level three those with scores of 26 to 30. Higher scores indicated more severe fear.

The test of the three-way interaction of the treatment condition, time of assessment and fear of negative evaluation factors was not

significant (F 24,325 = .708, p = .844). The changes in subjects' loneliness, depression and self-esteem in response to the treatment programs did not vary as a function of the initial level of fear of rejection.

The test of the interaction of the fear of negative social evaluation and time of assessment factors was significant (F 12,186 = 2.289, p = .01), as were the tests of the main effect of each (F 6,192 = 4.184, p = .001; F 6,93 = 17.952, p = .000, respectively). The changes over time in scores on the loneliness, depression and self-esteem measures differed according to the initial level of fear of social rejection. Figure S2 (Appendix S) illustrates the different patterns of change on the UCLA scale revealed by those in each of the three levels of the fear of negative social evaluation factor. Overall those who began the study scoring among the lowest or among the highest on the FNE revealed a comparable decrease in loneliness. Those who began with intermediate levels of fear of negative evaluation revealed a decrease in loneliness between pre- and post-treatment but then revealed a gradual increase in loneliness between post-treatment and follow-up back almost to pre-treatment levels. Those who began with the most severe fear of social rejection revealed a decrease in loneliness which continued between all three assessment points. Those who began with the lowest fear of social rejection revealed a decrease in loneliness between pre- and post-treatment which leveled off between post-treatment and follow-up.

Figure S3 (Appendix S) illustrates the pattern of change over time

on the Self-Esteem Scale revealed by subjects on the three levels of the fear of social rejection factor. Those who began the study with the least fear of rejection revealed little change in self-esteem over time. Those who began with intermediate levels of fear of rejection revealed a gradual increase in self-esteem across all assessment intervals. Those who began the study experiencing the most severe fear of social rejection also experienced the greatest increases in self-esteem between pre- and post- treatment. The level of reported self-esteem did not change for that group between post-treatment and follow-up. (See Table Q16 - Appendix Q for the summary statistics of this analysis).

Summary of Results

At the conclusion of the literature review the hypotheses in the present investigation were summarized (see pp. 33-34). Using the same framework, a summary of results obtained is presented below:

1) As predicted, all subjects regardless of group, demonstrated reductions in loneliness, depression and fear of negative social evaluation and increases in self-esteem.

2) (a) Those subjects assigned to social skill training and cognitive restructuring revealed more significant decreases in loneliness and depression, and more dramatic increases in self-esteem than did those assigned to waiting list control. However no such differences were observed between the groups in changes in self-monitoring skill.

   (b) The predicted relationship between changes in types of social

contact and the treatment condition to which subjects had been assigned was tentatively supported. In line with prediction, those subjects assigned to social skill training as opposed to cognitive restructuring or waiting list control rated more of their social contacts as high in intimacy and fewer as low in intimacy.

3) The predicted relationship between decreases in loneliness and increasing acceptance of behavioural control over both social failures and successes was observed. Over time all subjects reported increasing use of internal unstable (effort) and external stable (the environment) explanations of both categories of experience.

Contrary to prediction, the subjects assigned to the two active treatment conditions did not differ from the waiting list control subjects.

4) All subjects reported increased use of active coping strategies. However, the active treatment groups did not differ in that regard from the waiting list control.

5) Contrary to prediction, the subjects assigned to social skill training did not demonstrate greater improvement on the self-report measure of social skill. All subjects reported increased ability to initiate relationships, to be emotionally supportive and to self-disclose. Also contrary to prediction, no change in rated social skill (videotape data) was detected on the parts of subjects in either of the three groups.

6) No differences were detected in the reduction in fear of negative social evaluation demonstrated by the three groups of subjects. Regardless of group, all subjects revealed decreased fear of social rejection between pre-treatment and follow-up.

7) No direct support was detected for the predicted relationship between pre-treatment scores on the measures of social skill and differential response to treatments.

The predicted relationship between pre-treatment level of fear of negative social evaluation and differential response to treatment was not detected. Regardless of the treatment condition to which they had been assigned, subjects who differed in pre-treatment level of fear of negative social evaluation revealed differing patterns of change on the dependent measures. Those who began with the most severe fear of rejection showed steady decline in loneliness while those who began at an intermediate level of fear of rejection revealed a pre- to post-treatment decrease which was followed by a rebound to pre-treatment levels of loneliness.

Additional Findings

8) The choice of active coping strategies (e.g. social interaction) and self-reported strength in ability to be emotionally supportive predicted reduction in loneliness. Subjects' perceived social competency was negatively correlated with scores on the UCLA Loneliness scale and the Fear of Negative Evaluation Scale.

CHAPTER FOUR

Discussion

The results of the current study indicated that over the course of their first year in university many women will experience painful loneliness and depression. Further, as the year proceeds those women will adjust to the experience and will reveal spontaneous recovery to mood, self-esteem and sense of self-efficacy. Discussion of the nature of that spontaneous recovery and the proposed mechanism of that change will be followed by a discussion of the impact of the treatment programs.

The beneficial impact of two active intervention programs was supported. However, the mechanisms by which those treatment programs benefited the women were less clear. Discussion will focus on the possible reasons for the failure to detect differences in their impact. The discussion will conclude with the exploration of the implications of the results for both treatment and future research.

Spontaneous Changes in Mood, Self-Concept and Cognitions

The predicted spontaneous improvement in mood and self-concept was demonstrated by all subjects. Over time all of the women became significantly less lonely and depressed and saw themselves to be more competent people. Associated with those improvements to self-concept were the predicted changes to attributional style, perceived social competency, choice of coping strategies to alleviate loneliness, and perceived quality of social interactions.

Reductions in loneliness were associated with enhanced self-ratings

of social skill, acceptance of behavioural responsibility for one's relationship experiences, and purported increases in the use of active coping strategies. The importance of attributional style and optimistic cognitive appraisals of one's relationships was confirmed.

The results of various previous investigations were confirmed and extended. The Rubenstein and Shaver (1980) contention that active coping strategies are more effective in reducing loneliness was confirmed. Increased reported use of social interaction as a coping style was the most powerful predictor of reduced loneliness. As the information contained in the tables of Appendix R indicates, a strong negative correlation was detected between intensity of loneliness and reported frequency of use of social interaction to cope. However, the findings only supported the importance of reports of increased use of active strategies not actual increases in social interaction. Indeed, the interaction diary indices of such active coping failed to show any change. The understanding of that disparity between self-report and objective behaviour changes will be discussed in the next section of this chapter.

Revenson (1981) proposed that a major determinant of the coping style selected in response to loneliness would be the person's cognitive appraisal of the cause of the loneliness. She hypothesized that the individual who attributes loneliness to changeable aspects of his or herself (effort attributions) would be more likely to use problem-focused coping responses (e.g., initiation of social interactions). In contrast, the individual who attributes loneliness to unchangeable

aspects of the environment (external, stable attributions) would be more apt to make use of emotion-focused coping strategies (e.g., drinking, daydreaming). The crucial dimension Revenson identified was the degree of perceived control the individual experienced. Problem-focused coping reflected the individual's sense of personal control. Revenson's efforts to test out the predicted relationship between the type of coping response and the locus of causality (internal versus external causes of loneliness) and stability (loneliness seen as temporary or permanent) were only partly successful. Revenson concluded that the relationship between coping strategy choice and attributions for loneliness may be coloured by the severity of the individual's loneliness. Strong correlations were observed between stable attributions and severe loneliness. No such correlations were observed between severity of loneliness and internal attributions. Revenson postulated that as measured by her chosen attribution scale, internal locus of causality was more closely related to what Janoff-Bulman (1979) has labelled behavioral self-blame. The students were not engaging in pessimistic, characterological self-blame when they attributed their loneliness to aspects of their past social behaviour. Students who made internal attributions for loneliness were seen by Revenson as assuming greater control over the alleviation of their loneliness. By labelling their own behaviour as the source of their loneliness, the students identified their behaviour as the focus for change. Revenson pointed to the correlation between internal attributions and amount of coping efforts rather than type of coping effort. Internal attributions were associated with more vigorous

coping efforts.

The Revenson (1981) hypothesis that internal, unstable attributions for loneliness would be associated with the use of more active, problem-focussed coping strategies received support. As the women reported alleviation of loneliness and depression they also reported decreased use of personality self-blame and increased use of behavioural blame. As Janoff-Bulman (1979) discussed, the attribution of negative experiences to one's behaviour (behavioural self-blame) implies a belief that the event may be avoided in the future as a consequence of change in one's own behaviour. As the women became less lonely and depressed they also accepted greater responsibility for their social interactions. That sense of responsibility did not entail blame of personality. Rather it involved acceptance of the need to exert greater effort in the future in order to bring about greater success. Similarly, in the case of positive interactions the women increasingly attributed success to their efforts. The sense is that they began to see themselves as increasingly in control of their social relationships, rather like Bandura's (1977) concept of self-efficacy.

However, the anticipated changes in the performance of the six social skills were not observed, nor were changes in the frequency of interactions with intimates such as family and close friends. The changes observed were all on measures of self-appraisal rather than objective behavioural change. The results were supportive of the Williams and Solano (1983) investigation which demonstrated a relationship between loneliness and perceived absence of intimacy in

relationships. The improved quality rather than quantity of social contacts seemed to be associated with decreased loneliness.

Proposed Mechanism of Spontaneous Recovery

Over the course of the university year students can be expected to demonstrate a spontaneous recovery in mood and self-concept. The influence of the social environment upon the self-perceptions of the young female adult would appear to be dramatic. As Shaver et al. (1985) argued, the majority of this population of lonely people are so due more to the impact of social network disruptions brought about by the move to an unfamiliar academic environment than to social skill deficits. As the year progressed, the women all reported feeling increasingly competent in social interactions and more in charge of the quality of their social contacts. Associated with that enhanced appraisal of personal effectiveness came reductions in loneliness and depression and enhancements of self-esteem. When they first arrived at university the women found themselves in a novel, very large social environment. For many, all social interactions brought them in contact with strangers. They were unaware of the norms for appropriate social conduct and felt a lack of control. As the year progressed the women grew familiar with the rules of the social environment and felt increasingly in control. The changes seemed to be brought about through the passage of time as the women became more familiar with and at ease in their new environment and as they discovered increasing satisfaction in their social interactions within that environment.

The Impact of the Two Treatment Programs

The predicted spontaneous improvement in mood and self-concept was demonstrated by all subjects. However, also as predicted those who had taken part in either social skill training or cognitive restructuring demonstrated a more significant recovery. Those women who had experienced nine, ninety-minute sessions of either active therapy program reported significantly greater reductions in loneliness and depression and significantly greater increases in self-esteem. Of particular interest was the maintenance of that enhanced self-concept over a three-month follow-up interval subsequent to the conclusion of treatment. In contrast, those who had not received either form of treatment revealed less dramatic changes to self-esteem and mood and revealed a gradual increase in reported level of depression over the three month follow-up interval.

The more dramatic improvements to the moods and self-concepts of the treatment subjects were not simply an attention effect related to having the opportunity to talk to a group of peers on a weekly basis. Had that been the operative factor, the treatment subjects would have demonstrated a decline in mood and self-esteem when those weekly meetings ceased. The source of that beneficial impact could not be traced to the differential impact of the two treatment programs upon the social competency or attributional styles of the women.

It was significantly beneficial for those lonely female university students to receive group therapy. However the source of that benefit did not seem to have been related to the specific focii of the two

treatment programs. This author's understanding of the mechanism by which the active treatments brought about more dramatic recovery is better presented subsequent to a discussion of the search for differential effectiveness of treatment programs.

Differences in the Effectiveness of the Two Treatment Programs

It had been predicted that the lonely women would respond differently to the two intervention programs as a function of their initial pre-treatment level of social skill and pessimistic cognitions about social interactions. If the crucial factor in maintaining the loneliness of that population was an absence of social competency, greater reductions in negative affect and greater increases in self-esteem would have been evidenced by those who had undergone social skill training. That superior recovery would also have been associated with greater improvements on the measures of actual social skill and social initiative-taking. If misinterpretations of social interactions leading to self-blame and pessimism were the essential maintaining influences, those who had been exposed to cognitive restructuring would have demonstrated greatest recovery to mood and self-concept associated with most improvement on the measures of cognitive style and perceived quality of social contacts.

With two exceptions, none of the predicted differences in the responses of those assigned to the two interventions were detected. Those who experienced social skill training did not reveal more significant improvements in self-appraisals of social competencies or

performance of skills nor did those who had undergone cognitive restructuring evidence greater changes to attributional style or level of fear of negative social evaluation.

As previously mentioned there were two exceptions to that pattern. First those who had experienced social skill training as opposed to cognitive restructuring or waiting list control did show greater improvements in the perceived intimacy of their interactions. Those women reported more of their interactions to be highly intimate and fewer to be low in intimacy. Second, the predicted relationship between initial, pre-treatment self-appraisal of social competency and response to the two treatment programs received tentative support. Those who rated themselves as highly social competent at pre-treatment and who experienced cognitive restructuring reported less loneliness than did those who rated themselves as highly competent but were assigned to social skill training or control.

Methodological Limitations

As the preceeding discussion indicated, the mechanisms by which the two active treatment programs were expected to bring about improvements to mood and self-concept were not substantiated by the results of the study. Neither of the two treatments was more effective than the other at reducing negative affect or enhancing self-esteem and neither contributed to greater changes to social skill or attributional style as contrasted to the control condition.

Dependent Variables. Two possibilities must be considered before an explanation of the superior impact of the two treatments and of the

absence of difference in the effects of the two may be proposed. First, it is possible that one or both of the postulated change mechanisms were operative but that the way in which they were operationalized eliminated the possibility of detecting their effect. The six responses selected to reflect social competency may not have been sufficiently sophisticated to tap actual skill differences in this population. As Shaver et al. (1985) have discussed, the majority of the lonely university student population will be experiencing transient loneliness brought about by changes in friendship network during a significant life transition. The majority would be unlikely to evidence gross skill deficits. The social skill assessment procedures used in the current study may not have been sensitive to fine distinctions in social competency.

Similarly, the scale chosen to discriminate among subjects on the dimension of cognitive misinterpretation of social events may not have accurately operationalized the concept of pessimistic social expectations. In retrospect, the Fear of Negative Evaluation Scale seemed to assess anxiety over social rejection rather than the inaccurate interpretations of social events targeted during cognitive restructuring.

Likewise, the decision to assess ability to interpret nonverbal emotional communication via the Self-Monitoring Scale was probably ill-advised. Snyder's scale more likely assesses the individuals' concern for the meaning of other peoples' behaviour and his or her estimation of personal skill at interpreting behaviour accurately. In order to tap the person's actual encoding abilities a procedure such as that used by Gersen and Perlman (1979) would have been useful. The correlation

between scores on the SMS and the UCLA Loneliness scale was very low (Table contained in Appendix R). No significant relationship was detected between the two variables.

Had a more sophisticated, interactional analysis of the videotaped behaviour samples been conducted, the role of social skillfullness would have received a more careful evaluation. Similarly had a test of cognitive distortions been used rather than a measure of social evaluative anxiety, the role of cognitions would have been more accurately assessed.

Finally, the results obtained through the interaction diaries were compromised by the very large intra-individual variation in responses. The standard deviations of each subject group on the social contact measures gleaned from the diaries was so large as to seriously jeopardize the possibility of detecting differences between groups. Had a more accurate measure of social contacts been used, differences in the nature of contacts (i.e. with family, close friends, strangers) might have been detected in line with prediction. The Rochester Interaction Record described by Wheeler, Reis, and Nezlek (1983) appears to offer more meaningful and reliable social contact data.

Experimental Manipulation. Secondly, the two interventions may have been equally effective because they were not sufficiently distinct in protocol. However, such care was devoted to assuring that the two programs were very different in emphasis and procedure that it seems unlikely that the results were confounded by the blurring of the two interventions. Detailed treatment manuals were provided to the therapists and extensive training was carried out prior to the onset of the study. In that way the effect of differences in the experiences of

each therapist with each treatment orientation was outweighed. Those detailed weekly manuals were used to check the audiotapes of each weekly session for both treatment programs. In that way the adherence of the therapists to the treatment protocols was monitored and the distinction between the two programs was ensured (Beck, Andrasik, & Arena, 1984). In summary, the two interventions differed in focus (social skills versus cognitions) and the weekly sessions were carefully monitored to ensure that those who were assigned to social skill training experienced therapy very distinct from that experienced by the lonely assigned to cognitive restructuring. The absence of differences in the effectiveness of the two programs was not due to a blurring of the differences in the two treatment protocols.

Change Mechanism of the Two Treatments.

The results of the current investigation replicated the findings of previous psychotherapy outcome studies. In general, studies comparing the effectiveness of alternative therapies (e.g. behaviour therapy versus humanistic therapy) have concluded that any therapy is more helpful than no therapy but that no differences in the effects of alternate modalities can be documented (Smith, Glass, & Miller, 1980). Out of those findings has emerged a growing interest in the exploration of the factors common to most treatment modalities. Rather than discarding the study of how therapy works, researchers have chosen to refine their investigations to focus on the qualities of the patient, the therapist and the dyadic interaction which contribute to change (Abeles, 1981). As will now be discussed, the result of the current study pointed to the need to explore both the change mechanism common to both treatment programs and the client qualities which might facilitate change.

A change mechanism may have operated equally to produce the benefits of both active intervention programs. That mechanism has also been discussed with reference to the spontaneous recovery process. The two treatments may have contributed to the amelioration of self-appraisals. That hypothesis is supported by two findings. First, changes were observed on self-appraisal, cognitive measures but not on objective indices of social skill or social contacts. Secondly, the only difference in the treatment effects of the two programs was observed on the self-appraisal of the quality of interactions. Surprisingly, it was the social skill training group not the cognitive restructuring group which rated more of their interactions as highly intimate after treatment. It is possible that participation in either of the two intervention programs served to enhance the individuals' perceptions of the quality of their social interactions in ways which could not be tapped by the chosen dependent measures.

In addition, the two programs may have functioned to support the women through the period of adjustment to the university setting thereby preventing the development of chronic loneliness. Rook (1985) stressed the importance of tailoring the treatment strategy to the particular population of lonely people. Perhaps what the results of the current study tell us is that for a university student population, the crucial therapeutic agent will be the experience of a setting within which they may be supported through a difficult life transition. The two treatment programs represented arenas within which the lonely women were given the opportunity to recognize shared difficulties and were encouraged to persevere in their efforts to form relationships. The maintenance of the treatment effect over follow-up was an indication that the treatment

philosophies of the two programs asisted the participants in the development of optimistic attitudes which reduced their vulnerability to increased loneliness in response to social stresses such as leaving university for summer employment or reduced social contact due to examination pressures.

Those results support the importance of environmental strategies for the alleviation of loneliness in a university student population. The previously discussed weaknesses in the social skill assessment procedures must not be forgotten. However, the failure to detect behaviour change does suggest that the impact of the treatment groups was not an educative one. Instead, the two strategies may have functioned to nurture the optimism of the group members. The implications of that tentative conclusion for future research and for treatment planning will be discussed in a subsequent section of this chapter. At this point a discussion of the failure to detect an attribution-based chronic versus situational loneliness differentiation is relevant.

The Situational versus Chronic Loneliness Distinction

The failure to detect differences between lonely women on the basis of the extent of self-blame for social failure is relevant to the inability to substantiate treatment to client matching variables. For the population of lonely women sampled, the relevant dimensions seemed to be time of loneliness and its severity. Cutrona (1982) had contended that initial attributional style would be a relevant variable to consider in distinguishing those university students who would remain lonely versus those who would recover. In the current study changes in attribution for social successes and failures accompanied reductions in loneliness.

However, the women could not be distinguished for assignment to treatment on the basis of attributional style.

Of issue was the difference in the time of the academic year at which efforts were made to make the distinction. Cutrona (1982) began her study in the fall as the school year began while the present investigation screened women for the situational versus chronic distinction during January, February and March. In retrospect, the populations of lonely women sampled at the two points in time could have been expected to differ. In the early fall, many women were likely to be transiently lonely due to university entrance (Shaver et al. 1985). In contrast, the lonely women sampled during the winter might more likely have been lonely for several months and might have begun to feel discouraged about their social relationship prospects (Peplau, Russell & Heim, 1979). Therefore, the attributional distinction would have been less clear. It is unfortunate that the treatment phase of the study had not been preceeded by a late summer, or early in September screening of the female students for attributional style. Then, had the distinction still not been made, Cutrona's results could have been disputed without qualification.

Implications for the Treatment of Loneliness

The results of the present study supported the relationship between level of loneliness, depression and self-esteem and various cognitive appraisals of relationship competency, the quality of social contact, and the assumption of behavioural responsibility for the outcomes of social interactions. No relationship was detected between enhancements of mood and self-esteem and quantifiable changes in social responses or in the

nature or quantity of social contacts. For a population of lonely female university students improvements to mood and self-esteem, associated with more positive self-appraisals of social competency and the quality of relationships can be expected over time. The impact of growing accustomed to the environment and the process of adjusting to college, following the norms of that setting, contributes to spontaneous recovery.

For most young adults lonely due to the transition to college, the superior benefit of the two active intervention programs would not appear to be cost-efficient. For the majority, the improvements to well being which occur as they make use of their own coping mechanisms would be sufficient. What the superior impact of the two treatments did indicate was that the student population might be benefited by the design of social settings within the normal first-year program which would facilitate a sense of belonging and shared stress (Rook, 1985).

The present study failed to support the role of social skill deficits in the loneliness of this population. Instead, tentative support was extended for the role of enhanced self-efficacy and the experience of shared problems. The cost effectiveness of intervention could be greatly improved if such groups were incorporated into the formats of introductory courses. The course requirements themselves could be organized in such a way as to require cooperation between the class members. The focus would be upon incorporating within the university environment, settings which fostered a sense of personal competency and interconnectedness. Aronson, Blaney, Stephan, Sikes, and Snapp (1978) discussed a similar approach to the design of the educational setting for young children. Within the "Jigsaw Classroom" concept, emphasis is placed upon mastery through mutual support. The

loneliness of the university student would be alleviated by the facilitation of self-efficacy through participation in cooperative classroom activities. Rather than fostering isolation and competition those settings might enhance self-esteem and mutual appreciation as have the Jigsaw Classrooms (Blaney, Stephen, Rosenfeld, Aronson, & Sikes, 1977).

The potential benefits of this sort of environmental engineering are supported by the Lars Andersson (1984) study of loneliness intervention in an elderly population. No actual training of skills was conducted during the four group meetings of Andersson's study. However, the women who had attended the meetings reported decreased loneliness and alienation and increased self-esteem.

The second major benefit of changing facets of the academic environment rather than the individual, is the enhanced potential to reach those who are less likely to seek help. Rook (1985) cited a study (reported in Rook and Peplau, 1982) which indicated that of a population of lonely college freshmen 40% had never talked to anyone about ways to overcome loneliness. Rook drew a connection between those results and the Brown (1978) findings that those who do not seek help report lower self-esteem and less effective coping repertoires than do help seekers.

In highlighting those two sets of findings Rook (1985) stressed the importance as well as the challenge to helping professionals to attempt to reach the silent majority of lonely people who do not actively seek out assistance. Rook also warns against defining that assistance in terms of therapy for emotional difficulties. The stigma attached to being part of such programs might deter the lonely university students from responding. The groups offered in the present study were acceptable

to the women because they were defined as options in the introductory psychology course format. In joining they did not have to acknowledge emotional turmoil, but were able to receive contact with other lonely women and information from one another and the group leaders which encouraged continued optimism and sense of personal control. The groups had a preventive impact in that they limited loneliness and depression to a transitional period.

The mechanism by which social skill training and cognitive restructuring brought about equal benefits to mood and self-esteem has been discussed in terms of the qualities of the university population and the tentative role of enhanced self-efficacy. For those who conduct treatment with other populations, the mechanisms of treatment impact must be further explored. Features important to that exploration will be discussed in the next section of this report.

Directions for Future Research

The current study was unable to make finite statements with regard to the mechanisms of change which operated in the social skill training and cognitive restructuring programs. The two programs appeared to have equally beneficial impacts upon loneliness, depression and self-esteem and no treatment to client matching variables could be isolated. In addition, the roles of either cognitive distortion or social skill deficits could not be clarified or minimized due to methodological limitations. The spontaneous recovery in mood and self-esteem exhibited by all subjects and the beneficial effects of the two treatments were tentatively attributed to the influence of enhanced self-efficacy. In order to have been in a position to accurately assess that proposed

change mechanism, a final methodological issue must be addressed. The treatment group subjects may have demonstrated a more significant improvement to mood and self-concept than did the control subjects in part due to a need to please the investigator. The impact of social desireability was minimized by two methodological decisions. First, the women were uninformed as to the goals of the groups and so were less likely to know how to respond. In addition, they did not complete the questionnaires for the group leaders. They were more likely to be motivated to please those individuals than they were the principal investigator who dealt with them only around completion of the dependent measures. Were this study to be undertaken again, an attention placebo control condition would be added. The intent of that procedure would be to control for the effects of contact with the group leader and other group members. Any greater change displayed by the active treatment condition subjects could then be linked to facets of the treatment experience without contamination due to such nonspecific factors as expectancies for change, contact with the therapist and the motivation to respond in a socially desired fashion (Beck, Andrasik, & Arena, 1984).

The relationship between self-controlling, effort attributions and reductions in loneliness supported the importance of following up on the chronicity issue. Perhaps a more clear cut examination could be conducted by comparing known groups of lonely people. For example the cognitive style and treatment responses of a group of the recently bereaved (situationally lonely) could be contrasted to that of a group of lonely people who had been widowed for a number of years.

Alternatively, the attempt to match treatment to lonely persons might be pursued by screening lonely individuals on a measure of shyness. Cheek and Busch (1981) have pinpointed shyness as a personality variable which might influence the chronicity of loneliness. Those who begin with

a high level of shyness would be more likely to have difficulty spontaneously recovering from loneliness. The role of skill deficits versus cognitive distortions in the loneliness of that population could then be explored.

Summary

Loneliness is a painful experience strongly linked to depression and low self-esteem. This research demonstrated the association between enhanced self-efficacy (sense of personal control) and reduced loneliness. For the young adult university population, perceived self-efficacy may be enhanced by the experience of behavioural settings within which mastery and mutuality is promoted. In the university population social skill deficits may not be so severe as to require intensive remediation in order for lonely people to make use of their own coping mechanisms. For those individuals treatment would mean the facilitation of the sense of personal effectiveness through exposure to social mastery. Lonely young adults would benefit from exposure to social contexts within their normal student routine which promote mutual cooperation and shared mastery rather than isolation and competition. Within those settings the person's sense of being in control of his or her social environment would be supported.

In contrast, for a more impaired, less internally-resourced population a more intensive, educative approach is likely to be necessary. The study demonstrated the association between the individual's own perception of social skill deficits and severity of loneliness. As the women reported enhancements to their perceived social competency, they also reported reduced loneliness and depression. For a population of lonely people for whom social skill deficits are more salient, remediation of social competency would be essential.

References

Abeles, N. (1981). Psychotherapy works! Contemporary Psychology, 26, 821-823.

Altman, I. & Taylor, D. A. (1973). Social penetration: The development of interpersonal relationships. Atlanta: Holt, Rinehart and Winston.

Anderson, C. A., Horowitz, L. M., & French, R. de Sales. (1983). Attributional style of lonely and depressed people. Journal of Personality and Social Psychology, 45, 127-136.

Andersson, Lars. (1984). Aging and loneliness: An interventional study of a group of elderly women. Human Relations, 4, 295-310.

Arkowitz, H. (1981). Assessment of social skills. In Michel Hersen & Alan S. Bellack (Eds.), Behavioral assessment: A practical handbook. New York: Pergamon Press.

Aronson, E., Blaney, N., Stephan, C., Sikes, J., & Snapp, M. (1978). The Jigsaw Classroom. Beverley Hills, Calif.: Sage.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Beck, A. T. (1967). Depression: Clinical, experimental, and theoretical aspects. New York: Hoebes.

Beck, A. T. (1976). Cognitive therapy and the emotional disorders. New York: International Universities Press.

Beck, J. Gayle, Andrasik, Frank, & Arena, John G. (1984). Group comparison designs. in Alan S. Bellack and Michel Hersen (Eds.), Research methods in clinical psychology. New York: Pergamon Press.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emory, G. (1975). Cognitive therapy of depression. New York: The Guilford Press.

Belcher, M.J. (1973). The measurement of loneliness: A validation of the Belcher Extended Loneliness Scale (BELS). Unpublished doctoral dissertation, Illinois Institute of Technology.

Bell, R.G. (1956). Alcoholism and loneliness. Journal of Social Therapy, 2, 171-181.

Bellack, A. S. (1979). Behavioural assessment of social skills. In A. S. Bellack & M. Herson (Eds.), Research and practice in social skill training. New York: Plenum Press.

Bernstein, D. A., & Borkovec, T. D. (1973). Progressive relaxation training. Champaign, Illinois: Research Press.

Blaney, N.T., Stephan, C., Rosenfeld, D., Aronson, E., & Sikes, J. (1977). Interdependence in the classroom: a field study. Journal of Personality and Social Psychology, 69, 121-128.

Bradburn, N. (1969). The structure of psychological well-being. Chicago: Aldine.

Bragg, M. E. (1979). A comparative study of loneliness and depression. Unpublished doctoral dissertation, University of California.

Brennan, T., & Auslander, N. (1979). Adolescent loneliness: An exploratory study of social and psychological predisposition and theory. Unpublished manuscript, Behavioral Research Institute, Boulder, Colorado.

Brown, B. (1978). Social and psychological correlates of help-seeking behavior among urban adults. American Journal of Community Psychology, 6, 425-429.

Buhrmester, D. (1985, April). Phone conversation.

Cheek, J. M. & Busch, C. M. (1981). The influence of shyness on loneliness in a new situation. Personality and Social Psychology Bulletin, 7, 572-577.

Chelune, G. J., Sultan, F. E., & Williams, C. L. (1980). Loneliness, self-disclosure, and interpersonal effectiveness. Journal of Counseling Psychology, 27, 462-468.

Cozby, P. C. (1973). Self-disclosure: A literature review. Psychological Bulletin, 79, 73-91.

Curran, J. P. (1979). Social skills: Methodological issues and future directions. In A. S. Bellack and M. Hersen (Eds.), Research and practice in social skill training. New York: Plenum Press.

Cutrona, C. E. (1982). Transition to college: Loneliness and the process of social adjustment. In L. A. Peplau and D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: Wiley-Interscience.

Davis, M., Eshelman, F. R., & McKay, M. (1980). The relaxation and stress reduction workbook. Richmond, California, New Harbinger Publications.

Dixon, W. J., & Brown, M. B. (Eds.). (1979). Biomedical Computer Programs P-Series, Berkeley: University of California Press.

Durkheim, E. (1966). Suicide. New York: The Free Press.

Ekman, P. (1971). Universal and cultural differences in facial expressions of emotion. In J. Cole (Ed.), Nebraska Symposium on Motivation, 1971. Lincoln: University of Nebraska Press.

Ekman, P., & Friesen, W. V. (1969). Nonverbal leakage and clues to deception. Psychiatry, 32, 88-105.

Fishetti, M., Curran, J. P., & Wessberg, H. W. (1977). Sense of timing: A skill deficit in heterosexual-socially anxious males. Behavior Modification, 1, 179-195.

Fitts, W. H. (1965). Tennessee self-concept scale manual. Nashville: Counselor Recordings and Tests.

Fromm-Reichmann, F. (1959). Loneliness. Psychiatry, 22, 1-15.

Gaev, D. M. (1976). The psychology of loneliness. Chicago: Aldine Press.

Galassi, J. P., & Galassi, M. D. (1979). Modification of heterosocial skills deficits. In A.S. Bellack and M. Hersen (Eds.), Research and practice in social skill training. New York: Plenum Press.

Gallup, C. (1980). A study to determine the effectiveness of a social skills training program in reducing the perceived loneliness of social isolation. Unpublished doctoral dissertation. Ohio University.

Gersen, A. C., & Perlman, D. (1979). Loneliness and expressive communication. Journal of Abnormal Psychology, 88, 258-261.

Glass, C. R. (1974). Response acquisition and cognitive self-statement modification approach to dating behavior training. Unpublished master's thesis, Indiana University.

Glass, C. R., Gottman, J. M., & Shmurak, S. H. (1976). Response-acquisition and cognitive self-statement modification approaches to dating-skills training. Journal of Counseling Psychology, 23, 520-526.

Goldfried, M. R., & Davison, G. C. (1976). Clinical behavior therapy, New York: Holt, Rinehart and Winston.

Goldfried, M. R., & Merhaum, M. (Eds.), (1973). Behavior change through self-control. New York: Holt, Rinehart and Winston.

Goldfried, M. R., & Trier, C. S. (1974). Effectiveness of relaxation as an active coping skill. Journal of Abnormal Psychology, 83, 348-355.

Goldsmith, J. B., & McFall, R. M. (1975). Development and evaluation of an interpersonal skill-training program for psychiatric patients. Journal of Abnormal Psychology, 84, 51-68.

Gordon, S. (1976). Lonely in America. New York: Simon and Schuster.

Gordon, T. (1975). Parent effectiveness training. New York: New American Library.

Gormally, J., Sipps, G., Raphael, R., Edwin, D., & Varvil-Weld, D. (1981). The relationship between maladaptive cognitions and social anxiety. Journal of Consulting and Clinical Psychology, 49, 300-301.

Goswick, R. A., & Jones, W. H. (1981). Loneliness, self-concept, and adjustment. Journal of Psychology, 107, 237-240.

Hanson, R. O., & Jones, W. H. (1981). Loneliness, cooperation and conformity among American undergraduates. Journal of Social Psychology, 115, 103-108.

Hartog, J., Audy, J. R., & Cohen, Y. A. (1980). The anatomy of loneliness. New York: International Universities Press.

Henderson, S. (1980). A development in social psychiatry: The systematic study of social bonds. Journal of Nervous and Mental Disease, 168, 63-69.

Horowitz, L. M., & French, R. de S. (1979). Interpersonal problems of people who describe themselves as lonely. Journal of Consulting and Clinical Psychology, 47, 762-764.

Huck, S. W., & McLean, R. A. (1975). Using a repeated measures ANOVA to analyze the data from a pretest-posttest design: A potentially confusing task. Psychological Bulletin, 82, 511-518.

Jacobson, E. (1929). Progressive relaxation. Chicago: University of Chicago Press.

Janoff-Bulmann, R. (1979). Characterological versus behavioral self-blame: Inquiries into depression and rape. Journal of Personality and Social Psychology, 37, 1798-1809.

Jones, W. H. (1981). Loneliness and social contact. Journal of Social Psychology, 113, 295-296.

Jones, W. H. (1982). Loneliness and social behavior. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: Wiley-Interscience.

Jones, W. H., Freeman, J. A., & Goswick, R. A. (1981). The persistence of loneliness: Self and other determinants. Journal of Personality, 49, 27-48.

Jones, W. H., Hanson, R. O. & Smith, T. G. (1980). Loneliness and love: Implications for psychological and interpersonal functioning. Unpublished manuscript, University of Tulsa.

Jones, W. H., Hobbs, S. A., & Hockenbury, D. (1982). Loneliness and social skill deficits. Journal of Personality and Social Psychology, 42, 682-684.

Jones, W. H., Sansone, C., & Helm, B. (1983). Loneliness and interpersonal judgement. Personality and Social Psychology Bulletin, 9, 437-441.

Kazdin, A. E. (1979). Sociopsychological factors in psycho-pathology. In A. S. Bellack and M. Hersen (Eds.) Research and practice in social skills training. New York: Plenum Press.

Kirk, Roger E. (1968). Experimental design: Procedures for the behavioral sciences. California: Wadsworth Publishing Company, Inc.

Lang, P. J., Melamed, B. G., & Hart, J. A. (1970). A psycho-physiological analysis of fear modification using an automated desensitization procedure. Journal of Abnormal Psychology, 76, 220-234.

Linn, Robert L., & Slinde, Jeffrey, A. (1977). The determination of the significance of change between pre- and post-testing periods. Review of Educational Research, 47, 121-150.

Loucks, S. (1980). Loneliness, affect, and self-concept: Construct validity of the Bradley Loneliness scale. Journal of Personality Assessment, 4, 142-147.

McCormack, S. H. & Kahn, A. (1980). Behavioral characteristics of lonely and nonlonely college students. Unpublished paper, Iowa State University.

McFall, R. M., & Lillesand, D. V. (1971). Behavior rehearsal with modeling and coaching in assertive training. Journal of Abnormal Psychology, 313-323.

McFall, R. M., & Marston, A. (1970). An experimental investigation of behavioral rehearsal in assertive training. Journal of Abnormal Psychology, 295-303.

McFall, R. M., & Twentyman, C. T. (1970). Four experiments on the relative contributions of rehearsal, modeling, and coaching to assertive training. Journal of Abnormal Psychology, 81, 199-218.

Meichenbaum, D. B. (1977). Cognitive-behavior modification: An integrative approach. New York: Plenum.

Morrison, R. L. & Bellack, A. S. (1981). The role of social perception in social skill. Behavior Therapy, 12, 69-79.

Paul, G. L. (1969). Outcome of systematic desensitization II: Controlled investigations of individual treatment technique variations, and current status. In C. M. Franks (Ed.), Behavior Therapy: Appraisal and status, New York: McGraw-Hill.

Peplau, L. A., Miceli, M., & Morasch, B. (1982). Loneliness and self-evaluation. In L. A. Peplau and D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: Wiley-Interscience.

Peplau, L. A., & Perlman, D. (1982). Perspectives on loneliness. In L. A. Peplau and D. Perlman (Eds.). Loneliness: A sourcebook of current theory, research, and therapy. New York: Wiley-Interscience.

Peplau, L. A., Russell, D., & Heim, M. (1979). The experience of loneliness. In I.H. Frieze, D. Bar-Tal, and J.S. Carroll (Eds.), New approaches to social problems: Applications of attribution theory. (pp. 53-78). San Francisco: Jossey-Bass.

Perlman, D., and Peplau, L. A. (1982). Theoretical approaches to loneliness. In L. A. Peplau and D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research, and therapy. New York: Wiley-Interscience.

Perri, M. G., & Richards, C. S. (1977). An investigation of naturally occurring episodes of self-controlled behaviors. Journal of Counseling Psychology, 3, 178-183.

Peterson, J., Fischetti, M., Curran, J. P., & Arland, S. (1981). Sense

of timing: A skill deficit in hetersocially anxious women. Behavior Therapy, 12, 194-201.

Pilkonis, P. (1976). Shyness: Public behavior and private experience. Unpublished doctoral dissertation, Stanford: Stanford University Press.

Pittman, W. M. (1976). The relative effectiveness of three group counseling approaches in reducing loneliness among college students. Unpublished doctoral dissertation, University of Georgia.

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385-401.

Revenson, T. A. (1981). Coping with loneliness: The impact of causal attributions. Personality and Social Psychology Bulletin, 7, 565-571.

Rogers, C. (1970). On encounter groups. New York: Harper and Row.

Rook, K. S. (in press). Intervention for loneliness: A review and analysis. In L. A. Peplau and S. Goldsten (Eds.), Preventing the harmful consequences of severe and persistent loneliness. Washington, D.C., Government Printing Office.

Rook, K. S. (1984). Research on social support, loneliness and social isolation. In Phillip Shaver (Ed.), Review of Personality and Social Psychology: Emotions, relationships, and health, volume 5. Beverley Nills: Sage Publications.

Rook, K. S., & Peplau, L. A. (1982). Perspectives on helping the lonely. In L. A. Peplau and D. Perlman (Eds.), Loneliness: A sourcebook of

current theory, research and therapy. New York: Wiley Interscience.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, New Jersey: Princeton University Press.

Rubenstein, C., & Shaver, P. (1982a). The experience of loneliness. In L. A. Peplau and D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research, and therapy, New York: Wiley-Interscience.

Rubenstein, C. & Shaver, P. (1982b). In search of Intimacy. New York: Delacourte Press.

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Construct and discriminant validity. Journal of Personality and Social Psychology, 39, 472-480.

Sadler, W. A. (1975, July). The causes of loneliness. Science Digest. 58-66.

Sermat, V., & Smyth, M. (1973). Content analysis of verbal communication in the development of a relationship: conditions influencing self-disclosure. Journal of Personality and Social Psychology, 26, 332-346.

Shaul, S.L. (1981). Loneliness: A Comparison of two group counseling strategies with adults. Unpublished doctoral dissertation, University of Washington.

Shaver, P., Furman, W., and Buhrmester, D. (1984). Aspects of a life transition: Network changes, social skills, and loneliness. In S. Duck and D. Perlman (Eds)., The Sage Series in Personal Relationships, (Vol. 1), (pp. 193-219), London: Sage Publications.

Shaver, P., Furman, W., Buhrmester, D. & Williams, T. (1981). State and

trait loneliness during transition to college. Paper presented at New Direction in Loneliness Research. Symposium at the meeting of the American Psychological Association, Los Angeles.

Smith, M.L., Glass, G.V., & Miller, T.I. (1980). The benefits of psychotherapy. Baltimore: Johns Hopkins.

Snyder, M. (1974). Self-monitoring of expressive behavior. Journal of Personality and Social Psychology, 30, 526-537.

Solano, C. H., Batten, P. G., & Parish, E. A. (1982). Loneliness and patterns of self-disclosure. Journal of Personality and Social Psychology, 43, 524-531.

Spector, P.E. (1977). What to do with significant multivariate effects in multivariate analyses of variance. Journal of Applied Psychology, 62, 158-163.

SPSS-X User's Guide. (1983). New York: McGraw-Hill.

Steenman, H. F. (1984). Self-modification of loneliness. Unpublished master's thesis. University of Hawaii.

Trower, P. (1980). Situational analysis of the components and processes of behavior of socially skilled and unskilled patients. Journal of Consulting and Clinical Psychology, 48, 327-339.

Watson, D., & Friend, R. (1969). Measurement of social-evaluation anxiety. Journal of Consulting and Clinical Psychology, 33, 448-457.

Weeks, D. G., Miceli, J. L., Peplau, L. A., & Bragg, M. E. (1980). The relationship between loneliness and depression: A structural equation analysis. Journal of Personality and Social Psychology, 39, 1238-1244.

Weiner, B. (1980). Human motivation. New York: Holt, Rinehart & Winston.

Wenz, F.V. (1977). Seasonal suicide attempts and forms of loneliness. Psychological Reports, 40, 807-810.

Wheeler, L., Reis, H., & Nezlek, J. (1983). Loneliness, social interaction and sex roles. Journal of Personality and Social Psychology, 45, 943-953.

Williams, J.G., & Solano, C.H. (1983). The social reality of feeling lonely: Friendship and reciprocation. Personality and Social Psychology Bulletin, 9(2), 237-242.

Wilson, G. T. & O'Leary, K. D. (1980). Principles of behavior therapy. Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Young, J. (1982). Loneliness, depression and cognitive therapy: Theory and application. In L.A. Peplau and D. Perlman (Eds.). Loneliness: A sourcebook of current theory, research, and therapy. New York: Wiley-Interscience.

Appendix A

Brief Screening Questionnaire

Please check appropriate answer to the following three questions:

1) Do you consider yourself to be a lonely person?

_____ NO _____ YES

If yes, have you always been lonely?

_____ NO _____ YES

If NO, was there ever a period previously in your life when you were lonely?

_____ NO _____ YES

2) Have you felt lonely in the past few weeks?

_____ NO _____ YES

3) Is loneliness a <u>personal</u> problem for you?

_____ NO _____ YES

4) Has your loneliness been primarily due to something about you - or is it due to something about the social situation you find yourself in? Please circle the number that best describes your answer to this question:

1	2	3	4	5	6
something about me					something about the situation

5) Has anything happened to you in the last six to eight months that you think may have contributed to your loneliness? Please use the following lines to describe any event that you think is important to your current loneliness. _____

_____

_____

6) Many factors may contribute to a person's feeling lonely. The following is a list of life events. Please indicate whether each of these events has or has not happened to you in the past six to eight months. If an event has happened to you in the past six to eight months place a check mark under YES beside that item. If an event has not happened to you in the past six to eight months, place a check mark under NO in the column beside that item.

In the past six to eight months, have you:

	YES	NO	
Moved	____	____	____
Broken up with a boyfriend/girlfriend	____	____	____
Become divorced or separated	____	____	____
Changed schools	____	____	____
Lost a loved one through death	____	____	____
Had an increase in arguments/disagreements	____	____	____
Had close friends move away	____	____	____
Had family members move away	____	____	____
Changed your place of residence	____	____	____
Taken on new activities that prevent you from spending time with your friends or family	____	____	____
Experienced serious illness or injury	____	____	____
Left a job	____	____	____

If there is another life event that you feel has contributed to your loneliness, please describe it in the space provided below: _____

_____

_____

_____

7) Now, for each event you checked YES in Question 6, please go back and indicate in the final column how important that event was in contributing to your loneliness. Please answer using the following scale:

1 = not at all important in causing my loneliness

2 = only slightly important in causing my loneliness

3 = moderately important in causing my loneliness

4 = strongly important in causing my loneliness

5 = extremely important in causing my loneliness

When you are finished, each event that you checked YES in Question 6 as having happened to you should have a number from 1 to 5 beside it in the third column.

8) Using the same scale described in Question 7 above, please indicate how important each of the following factors have been to your loneliness.

I'm anxious with other people _____

I bore other people _____

I don't try hard enough to meet people _____

I'm too shy _____

I don't know how to start a relationship _____

I'm afraid of rejection _____

I'm not very physically attractive _____

My personality isn't good and interferes with meeting people _____

Please use the following lines to describe any other personal features that you think is important to your loneliness. _____

_____

_____

_____

9) Please choose which set of factors has been most important in contributing to your loneliness. Please indicate which has been most important by placing a check mark beside that set of most important factors.

I believe that some of the life events listed in Question 6 (or some other important life events) have been most important in contributing to my loneliness. _____

OR

I believe that some of the personal features listed in Question 8 (or some other feature of my personality) have been most important in contributing to my loneliness. _____

10) Please pick out the statement that best describes you. Circle the letter beside the statement you pick.

(a) Loneliness has never been a real problem to me.

(b) Although there have been previous times in my life when I've been lonely, at the present time (say in the last few months) I haven't been lonely.

(c) Although I've felt lonely during the past few months, loneliness has not been a persisting, regular experience in my life before now.

(d) I've felt lonely for more than a year.

(e) During much of my life, I've felt lonely.

Appendix B
Detailed Screening Questionnaire

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement which best describes you. Be sure to read all the statements in each group before making your choice. Circle the number beside the statement you have chosen in each group.

1. 0 I have someone I can really depend on and who cares about me.
   1 I'm not sure there's anyone I can really depend on and who cares about me
   2 There's no one anywhere I can really depend on and who cares about me right now.
   3 For several years, I haven't had anyone I could really depend on and who cares about me.

2. 0 There is someone nearby who really understands me.
   1 I'm not sure there's anyone nearby who really understands me.
   2 There's no one who really understands me anywhere right now.
   3 For several years, no one has really understood me.

3. 0 I have someone nearby I could talk to about my private feelings.
   1 There's no one nearby I could talk to about my private feelings.
   2 There's no one I could talk to about my private feelings anywhere right now.
   3 For several years, I haven't had anyone I could talk to about my private feelings.

4. 0 I have a close group of friends nearby that I feel part of.
   1 I don't feel part of any close group of friends nearby.
   2 I don't have a close group of friends anywhere right now.
   3 For several years, I haven't had a close group of friends.

5. 0 There is someone nearby who really needs me and wants my love.
   1 I'm not sure anyone nearby really needs me and wants my love.
   2 There isn't anyone anywhere who really needs me and wants my love right now.
   3 For several years, no one has really needed me and wanted my love.

6. 0 I have a lot in common with other people I know.
   1 I wish my values and interests, and those of other people I know, were more similar.
   2 I'm different from other people I know.
   3 I've felt different from other people for several years.

7. 0 When I want to do something for enjoyment, I can usually find someone to join me.
   1 I often end up doing things alone even though I'd like to have someone join me.
   2 There's no one right now I can go out and enjoy things with.
   3 There hasn't been anyone I could go out and enjoy things with for several years.

8. 0 There are no groups I'd really like to belong to that won't accept me.
   1 There is a group of people I know that I'd like to belong to and don't.
   2 It bothers me that there is a group of people that I know right now who don't like me.
   3 For the past several years I've felt excluded by group(s) of people I've wanted to belong to.

9. 0 I rarely think about particular times in my life when my relationship seemed better.
   1 I sometimes wish my relationships now could be more like they were at another time in my life.
   2 I am often disturbed about how unsatisfactory my relationships now are compared with another time in my life.
   3 I cannot stop thinking about how much better my relationships once were.

10. 0 I don't miss anyone in particular right now.
    1 I miss someone who isn't here now.
    2 I often think about a particular person I was close to.
    3 I cannot stop thinking about someone I lost.

11. 0 I feel like part of a "team" with the people I work with.
    1 I am not employed at the present time.
    2 There is a team feeling among the people I work with, but I do not feel I fit in.
    3 Most of the people I work with don't like me.

12. 0 I can usually talk freely to close friends about my thoughts and feelings.
    1 I have some difficulty talking to close friends about my thoughts and feelings.
    2 I feel like my thoughts and feelings are bottled up inside.
    3 I cannot seem to communicate with anyone.

13. 0 The important people in my life have not let me down.
    1 I'm still disappointed at someone I thought I could trust.
    2 As I look back at my life, many people I trusted have let me down.
    3 I find I can't trust anyone anymore.

14. 0 I can almost always enjoy myself when I am alone.
    1 I can sometimes enjoy myself alone.
    2 I can rarely enjoy myself alone.
    3 I can never really enjoy myself when I am alone.

15. 0 I rarely wish that my relationships could be more like other people's.
    1 I sometimes wish that I could have relationships that satisfied me the way other people's relationships satisfy them.
    2 I often wish that I could have relationships that satisfied me the way other people's relationships satisfy them.
    3 I cannot stop comparing the satisfaction other people get from their relationships with my own lack of satisfaction.
16. 0 There is someone I am physically intimate with now on a regular basis.
    1 I am not physically intimate with anyone now on a regular basis.
    2 I am often disturbed that I am not physically intimate with someone on a regular basis now.
    3 I have never been physically intimate with anyone on a regular basis for several months.

17. 0 I haven't felt lonely during the past week (including today).
    1 I've felt somewhat lonely during the past week (including today).
    2 I've felt very lonely during the past week (including today).
    3 I could barely stand the loneliness during the past week (including today).

18. 0 Loneliness has never been a real problem for me.
    1 There have been times in my life when I've felt quite lonely, but not during the past few months.
    2 I've felt lonely regularly during the past few months.
    3 I've felt lonely regularly for more than a year.
    4 I've felt lonely for several years.
    5 I've always felt lonely.

UCLA Loneliness Scale

Indicate how often you have felt the way described in each statement using the following scale:

4 indicates "I have felt this way often."
3 indicates "I have felt this way sometimes."
2 indicates "I have felt this way rarely."
1 indicates "I have never felt this way."

		Never	Rarely	Sometimes	Often
1.	I feel in tune with the people around me	1	2	3	4
2.	I do not have any friends	1	2	3	4
3.	There is no one I can turn to	1	2	3	4
4.	I feel alone	1	2	3	4
5.	I feel part of a group of friends	1	2	3	4
6.	I have a lot in common with the people around me	1	2	3	4
7.	I am not close to anyone	1	2	3	4
8.	My interests and ideas are not shared by those around me	1	2	3	4
9.	I am an outgoing, friendly person	1	2	3	4
10.	There are people I feel close to	1	2	3	4
11.	I feel left out	1	2	3	4
12.	My social relationships are not close	1	2	3	4
13.	No one really knows me well	1	2	3	4
14.	I feel close to others	1	2	3	4
15.	I can find friendship when I want it	1	2	3	4
16.	There are people who really understand me	1	2	3	4
17.	I am unhappy being so alone	1	2	3	4
18.	People are around me but not with me	1	2	3	4
19.	There are people I can talk to	1	2	3	4
20.	There are people I can turn to	1	2	3	4

Please check the appropriate answer to the following five questions:

1. Do you consider yourself to be a longely person?

_____ YES _____ NO

2. If YES, have you always been lonely?

_____YES _____ NO

3. If NO, was there ever a period previously in your life when you were lonely?

_____ YES _____ NO

4. Have you felt lonely in the past few weeks?

_____ YES _____ NO

5. Is loneliness a personal problem for you?

_____ YES _____ NO

6. Has your loneliness been primarily due to something about you - or is it due to something about the social situation you find yourself in? Please circle the number that best describes your answer to this question.

1	2	3	4	5	6
something about me					something about the situation

7. Many factors may contribute to a person's feeling lonely. The following is a list of life events. Please indicate whether each of these events has or has not happened to you in the past six to eight months. If an event has happened to you in the past six to eight months, place a check mark under YES beside that item. If an event has not happened to you in the past six to eight months, place a check mark under NO in the column beside that item.

	YES	NO	
Moved	_____	_____	_____
Broken up with a boyfriend/girlfriend	_____	_____	_____
Become divorced or separated	_____	_____	_____
Changed schools	_____	_____	_____
Lost a loved one through death	_____	_____	_____
Had an increase in arguments/disagreements	_____	_____	_____
Had close friends move away	_____	_____	_____
Had family members move away	_____	_____	_____
Changed your place of residence	_____	_____	_____
Taken on new activities that prevent you from spending time with your friends or family	_____	_____	_____
Experienced a serious illness or injury	_____	_____	_____
Left a job	_____	_____	_____

If there is another life event that you feel has contributed to your loneliness please describe it in the space provided below. _____

_____

_____

8. Now, for each event you checked YES in Question 7, please go back and indicate in the final column how important that event was in contributing to your loneliness. Please answer using the following scale:

1 = not at all important in causing my loneliness
2 = only slightly important in causing my loneliness
3 = moderately important in causing my loneliness
4 = strongly important in causing my loneliness
5 = extremely important in causing my loneliness

When you are finished, each event that you checked YES as having happened to you should have a number from 1 to 5 beside it in the third column.

9. Using the same scale described in Question 8 above, please indicate how important each of the following personality features have been to your loneliness.

I'm anxious with other people. _____

I bore other people. _____

I don't try hard enough to meet people. _____

I'm too shy. _____

I don't know how to start a relationship. _____

I'm afraid of rejection. _____

I'm not very physically attractive. _____

My personality isn't good and interferes with meeting people. _____

10. This question is to be answered if you answered YES to Question 1, 3 or 4. If you had to select the most important reason for your being lonely, what would it be? Please use the following lines to describe that reason.

_____

_____

The next three questions are to be answered if you responded YES to Question 1, 3 or 4. Please read the following statements and place a check mark beside the response that is most true for you.

11. Although I have been dissatisfied with my social relationships, I believe that they are going to improve and become more satisfying to me.

Strongly Agree _____

Agree _____

Disagree _____

Strongly Disagree _____

12. I am lonely because I am not very good at meeting and getting to know people.

Strongly Agree _____

Agree _____

Disagree _____

Strongly Disagree _____

13. I am lonely because of something about my current life situation (e.g., I just broke up with a boyfriend/girlfriend). There are concrete things that I can do (and will do) to change the situation and help myself to feel less lonely.

Strongly Agree _____

Agree _____

Disagree _____

Strongly Disagree _____

Everyone should answer Questions 14, 15 and 16.

14. When I am successful in a social situation (e.g., a party or social), I would explain that success as follows: Please check the statement below that comes closest to your explanation.

(a) It was just a lucky night for me.

(b) The other people at the social gathering were especially kind and went out of their way to be friendly to me.

(c) I tried hard and put effort into being friendly to the other people

(d) I'm good at meeting people.

15. When I experience a failure in a social situation (e.g., a party), I would explain that failure as follows. Please check the statement that comes closest to your explanation.

(a) It was just an unlucky night for me.

(b) The other people at the party were not particularly friendly.

(c) I didn't feel like being sociable at that particular time. Another time I would have done better.

(d) I am just not good at social gatherings. I am always uncomfortable and don't know how to get acquainted with people.

16. Please pick out the statement that best describes you. Circle the letter beside the statement you pick.

(a) Loneliness has never been a real problem to me.

(b) Although there have been previous times in my life when I've been lonely, at the present time (say in the last few months) I haven't been lonely.

(c) I've felt lonely during the past few months due to specific reasons (e.g., a move, break-up of a relationship, etc.).

(d) I've felt lonely for more than a year.

(e) During much of life I've felt lonely.

17. If you answered YES to Questions 1, 3, or 4 please answer the following question:

Please choose the set of factors that has been most important in contributing to your loneliness. Please indicate which has been most important by placing a check mark beside that set of factors.

I believe that some life event(s) such as those listed in Question 7 has been most important in contributing to my loneliness. _____

OR

I believe that some personality characteristic(s) such as those listed in Question 9 has been most important in contributing to my loneliness. _____

18. Many people feel lonely from time to time. Rate from 1 to 4 how lonely you have been feeling recently.

1	2	3	4
not at all lonely			very lonely

In answering the next set of questions I am going to ask you, I want you to think about your current relationships with friends, family members, co-workers, community members, and so on. Please tell me to what extent you agree that each statement describes your current relationships with other people. Use the following scale to give me your opinion. So, for example, if you feel a statement is very true of your current relationships, you would tell me "strongly agree". If you feel a statement clearly does not describe your relationship, you would respond "strongly disagree".

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. There are people I can depend on to help me if I really need it. _____
2. I feel that I do not have any close relationships with other people. _____
3. There is no one I can turn to for guidance in times of stress. _____
4. There are people who depend on me for help. _____
5. There are people who enjoy the same activities I do. _____
6. Other people do not view me as competent. _____
7. I feel personally responsible for the well-being of another person. _____
8. I feel part of a group of people who share my attitudes and beliefs. _____
9. I do not think other people respect my skills and abilities. _____
10. If something went wrong, no one would come to my assistance. _____
11. I have close relationships that provide me with a sense of emotional security and well-being. _____
12. There is someone I could talk to about important decisions in my life. _____
13. I have relationships where my competence and skill are recognized. _____
14. There is no one who shares my interests and concerns. _____
15. There is no one who really relies on me for their well-being. _____
16. There is a trustworthy person I could turn to for advice if I were having problems.
17. I feel a strong emotional bond with at least one other person. _____

Strongly Disagree	Disagree	Agree	Strongly Agree	
18. There is no one I can depend on for aid if I really need it.				_____
19. There is no one I feel comfortable talking about problems with.				_____
20. There are people who admire my talents and abilities.				_____
21. I lack a feeling of intimacy with another person.				_____
22. There is no one who likes to do the things I do.				_____
23. There are people I can count on in an emergency.				_____
24. No one needs me to care for them.				_____

This is a measure of how inter-related your relationships are.

First, list by initial all people up to a maximum of twenty who are personally important to you that you regard as friends. For the purpose of this question, a "friend" is someone with whom you feel comfortable discussing personal matters. This would include relatives you feel close to and who are important to you. Twenty people has been arbitrarily set as a maximum. Some people may have fewer while some may have more.

Second, indicate whether the person is your friend, girl or boyfriend, father, sister, cousin, etc.

Third, indicate by initials those who know or who are acquainted with other people on your list. A person may know more than one person on the list.

Fill out this question on the next page. The first six initials are examples.

Initial	Relationship	Inter-Relationship
B.D.	friend	none
J.F.	sister	R.K., D.F.
R.K.	friend	J.P., L.M.
L.M.	friend	R.K.
D.F.	brother-in-law	J.P.
D.G.	friend	none
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Many people often feel lonely. Rate how often you have engaged in each of the following activities to deal with loneliness. Then rate how helpful you found these responses. Use the following scale.

Never	Rarely	Sometimes	Often
1	2	3	4

Never Used	Unhelpful	Somewhat Helpful	Very Helpful
1	2	3	4

1. Taken your mind off feeling lonely by doing some physical activity. _____
2. Taking your mind off feeling lonely by doing some physical activity was: _____
3. Tried to figure out why you were lonely. _____
4. Trying to figure out why you were lonely was: _____
5. Done something to make yourself more physically attractive to others. _____
6. Doing something to make yourself more physically attractive to others was: _____
7. Thought about good qualities that you possess. _____
8. Thinking about good qualities that you possess was: _____
9. Actually done something that you are very good at. _____
10. Actually doing something that you are very good at was: _____
11. Told yourself that you were over-reacting, that you shouldn't be so upset. _____
12. Telling yourself that you were over-reacting, that you shouldn't be so upset was: _____
13. Told yourself that most other people are lonely at one time or another. _____
14. Telling yourself that most people are lonely at one time or another was: _____
15. Tried to do new things to meet people. _____
16. Trying to do new things to meet people was: _____
17. Taken your mind off feeling lonely through some mental activity. _____
18. Taking your mind off feeling lonely through some mental activity was: _____

19. Thought about things you could do to overcome your loneliness. _____

20. Thinking about things you could do to overcome your loneliness was: _____

21. Listened to music. _____

22. Listening to music was: _____

23. Done something to improve your social skills. _____

24. Doing something to improve your social skills was: _____

25. Thought about things you can do extremely well. _____

26. Thinking about things you can do extremely well was: _____

27. Got alone to think. _____

28. Getting alone to think was: _____

29. Working particularly hard to succeed at some activity. _____

30. Working particularly hard to succeed at some activity was: _____

31. Told yourself that your loneliness would not last forever. _____

32. Telling yourself that your loneliness would not last forever was: _____

33. Reminded yourself that you actually do have good relationships with other people. _____

34. Reminding yourself that you actually do have good relationships with other people was: _____

35. Attended a social gathering to meet new people. _____

36. Attending a social gathering to meet new people was: _____

37. Taken your mind off feeling lonely by deliberately thinking about other things. _____

38. Taking your mind off feeling lonely by thinking about other things was: _____

39. Thought about how to change your loneliness. _____

40. Thinking about how to change your loneliness was: _____

41. Done something to make yourself a more outgoing person. _____

42. Doing something to make yourself a more outgoing person was: _____

43. Thought about things you have done successfully in the past was: _____

44. Thinking about things you have done successfully in the past was: _____

45. Taken your mind off feeling lonely by concentrating on school-work. _____

46. Taking your mind off feeling lonely by concentrating on school-work was: _____

47. Thought about possible benefits of your experience of loneliness. _____

48. Thinking about possible benefits of your experience of loneliness was: _____

49. Read a novel. _____

50. Reading a novel was: _____

51. Changed your goals for social relationships. _____

52. Changing your goals for social relationships was: _____

53. Attended organized recreational activities to meet new people. _____

54. Attending organized recreational activities to meet new people was: _____

In the remaining items please state your level of agreement using the following scale:

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. In general, loneliness occurs because of the type of society we live in. _____
2. When a person is lonely, there is really not much that he or she can do about it. _____
3. It's too bad when people give up trying to overcome their loneliness as there are lots of things they can do about it. _____
4. Feelings of loneliness don't really last for very long. _____
5. Loneliness is a normal and probably even desirable aspect of human developments. _____
6. If a person feels lonely, it's largely due to something about him or her. _____
7. Once a person is lonely, it takes a long time to stop feeling that way. _____
8. If a person feels lonely, he or she primarily needs to develop as a person. _____
9. There is really nothing positive about being lonely. _____
10. If a person feels lonely, he or she usually needs to change their environment, rather than something about him or herself. _____

In the next two questions I would like you to rate how intensely you have been experiencing each of two types of loneliness. Do so by circling the number between 1 and 9 on the rating scale beneath each question.

1. A possible type of loneliness involves not belonging to a group or social network. While this may be a set of friends who engage in social activities together, it can be any group that provides a feeling of belonging based on shared concerns, work or other activities.

How intensely have you been experiencing this type of loneliness?

1	2	3	4	5	6	7	8	9
Not at all								very strongly

2. A possible type of loneliness is the lack of an intense, relatively enduring relationship with one other person. While this relationship is often romantic, it can be any one-to-one relationship that provides feelings of affection and security.

How intensely have you been experiencing this type of loneliness?

1	2	3	4	5	6	7	8	9
Not at all								very strongly

Appendix C

UCLA Loneliness Scale

UCLA Loneliness Scale

Indicate how often you have felt the way described in each statement using the following scale:

4 indicates "I have felt this way often."
3 indicates "I have felt this way sometimes."
2 indicates "I have felt this way rarely."
1 indicates "I have never felt this way."

	Never	Rarely	Sometimes	Often
1. I feel in tune with the people around me.	1	2	3	4
2. I do not have any friends. . . .	1	2	3	4
3. There is no one I can turn to. .	1	2	3	4
4. I feel alone	1	2	3	4
5. I feel part of a group of friends.	1	2	3	4
6. I have a lot in common with the people around me	1	2	3	4
7. I am not close to anyone	1	2	3	4
8. My interests and ideas are not shared by those around me. . . .	1	2	3	4
9. I am an outgoing, friendly person	1	2	3	4
10. There are people I feel close to	1	2	3	4
11. I feel left out.	1	2	3	4
12. My social relationships are not close.	1	2	3	4
13. No one really knows me well. . .	1	2	3	4
14. I feel close to others	1	2	3	4
15. I can find friendship when I want it.	1	2	3	4
16. There are people who readily understand me.	1	2	3	4
17. I am unhappy being so alone. . .	1	2	3	4
18. People are around me but not with me.	1	2	3	4
19. There are people I can talk to .	1	2	3	4
20. There are people I can turn to .	1	2	3	4

1. 0 I haven't felt lonely during the past week (including today).
   1 I've felt somewhat lonely during the past week (including today).
   2 I've felt very lonely during the past week (including today).
   3 I could hardly stand the loneliness during the past week (including today).

2. 0 Loneliness has never been a real problem for me.
   1 There have been times in my life when I've felt quite lonely, but not during the past few months.
   2 I've felt lonely regularly during the past few months.
   3 I've felt lonely regularly for more than a year.
   4 I've felt lonely for several years.
   5 I've always felt lonely.

3. Many people feel lonely from time to time. Rate from 1 to 4 how lonely you have been feeling lately.

1	2	3	4
not at all lonely			very lonely

Name: _____

Phone Number: _____

Professor's Name: _____

Slot or time when class meets: _____

Appendix D

CES-D Depression Scale

The CES-D Scale

INSTRUCTIONS FOR QUESTIONS: Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

1 Rarely or None of the Time (Less than one day)
2 Some or a Little of the Time (1-2 Days)
3 Occasionally or a Moderately Amount of Time (3-4 Days)
4 Most of all the Time (5-7 Days)

Print the number of your answer beside each item.

During the past week:

_____ 1. I was bothered by things that usually don't bother me.
_____ 2. I did not feel like eating; my appetite was poor.
_____ 3. I felt that I could not shake off the blues even with help from my family or friends.
_____ 4. I felt that I was just as good as other people.
_____ 5. I had trouble keeping my mind on what I was doing.
_____ 6. I felt depressed.
_____ 7. I felt that everything I did was an effort.
_____ 8. I felt hopeful about the future.
_____ 9. I thought my life had been a failure.
_____ 10. I felt fearful.
_____ 11. My sleep was restless.
_____ 12. I was happy.
_____ 13. I talked less than usual.
_____ 14. I felt lonely.
_____ 15. People were unfriendly.
_____ 16. I enjoyed life.
_____ 17. I had crying spells.
_____ 18. I felt sad.
_____ 19. I felt that people dislike me.
_____ 20. I could not get "going".

Appendix E

Rosenberg Self-Esteen Scale

CHECK YOUR ANSWER.

1) I feel that I'm a person of worth, at least on an equal plane with others.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

2) I feel that I have a number of good qualities.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

3) All in all, I am inclined to feel that I am a failure.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

4) I am unable to do things as well as most other people.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

5) I feel I do not have much to be proud of.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

6) I take a positive attitude toward myself.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

7) On the whole, I am satisfied with myself.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

8) I wish I could have more respect for myself.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

9) I certainly feel useless at times.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

10) At times I think I'm no good at all.

1 _____ Strongly Agree
2 _____ Agree
3 _____ Disagree
4 _____ Strongly Disagree

Appendix F

Self-Monitoring Scale

The Self Monitoring Scale

Instructions: The statements on the following page concern your personal reactions to a number of different situations. No two statements are alike exactly, so consider each statement carefully before answering. If a statement is TRUE or MOSTLY TRUE as applied to you, print T in the space beside the item. If a statement is FALSE or USUALLY NOT TRUE as applied to you, print F on the space beside the item.

Print T (true) or F (false) beside each item. It is important that you answer as frankly and honestly as you can. Your answers will be kept in the strictest confidence.

_____ 1. I find it hard to imitate the behaviour of other people.
_____ 2. My behaviour is usually an expression of my true inner feelings, attitudes, and beliefs.
_____ 3. At parties and social gatherings, I do not attempt to do or say things that others will like.
_____ 4. I can only argue for ideas which I already believe.
_____ 5. I can make impromptu speeches even on topics about which I have almost no information.
_____ 6. I guess I put on a show to impress or entertain people.
_____ 7. When I am uncertain how to act in a social situation, I look to the behaviour of others for cues.
_____ 8. I would probably make a good actor.
_____ 9. I rarely need the help of my friends to choose movies, books, or music.
_____ 10. I sometimes appear to others to be experiencing deeper emotions than I really am.
_____ 11. I laugh more when I watch a comedy with others than when alone.
_____ 12. In a group of people I am rarely the centre of attention.
_____ 13. In different situations and with different people, I often act like very different persons.
_____ 14. I am not particularly good at making other people like me.
_____ 15. Even if I am not enjoying myself, I often pretend to be having a good time.
_____ 16. I'm not always the person I appear to be.
_____ 17. I would not change my opinions (or the way I do things) in order to please someone else or to win their favour.
_____ 18. I have considered being an entertainer.
_____ 19. In order to get along and be liked, I tend to be what people expect me to be rather than anything else.
_____ 20. I have never been good at games like charades or improvisational acting.
_____ 21. I have trouble changing my behaviour to suit different people and different situations.
_____ 22. At a party I let others keep the jokes and stories going.
_____ 23. I feel a bit awkward in company and do not show up quite so well as I should.
_____ 24. I can look anyone in the eye and tell a lie with a straight face (if for a right end).
_____ 25. I may deceive people by being friendly when I really dislike them.

Appendix G

Fear of Negative Evaluation Scale

FNE

Print T (true) or F (false) beside each item.

_____ 1. I rarely worry about seeming foolish to others.

_____ 2. I worry about what people will think of me even when I know it doesn't make any difference.

_____ 3. I become tense and jittery if I know someone is sizing me up.

_____ 4. I am unconcerned even if I know people are forming an unfavorable impression of me.

_____ 5. I feel very upset when I commit some social error.

_____ 6. The opinions that important people have of me cause me little concern.

_____ 7. I am often afraid that I may look ridiculous or make a fool of myself.

_____ 8. I react very little when other people disapprove of me.

_____ 9. I am frequently afraid of other people noticing my shortcomings.

_____ 10. The disapproval of others would have little effect on me.

_____ 11. If someone is evaluating me I tend to expect the worst.

_____ 12. I rarely worry about what kind of impression I am making on someone.

_____ 13. I am afraid that others will not approve of me.

_____ 14. I am afraid that people will find fault with me.

_____ 15. Other people's opinions of me do not bother me.

_____ 16. I am not necessarily upset if I do not please someone.

_____ 17. When I am talking to someone, I worry about what they may be thinking about me.

_____ 18. I feel that you can't help making social errors sometimes, so why worry about it.

_____ 19. I am usually worried about what kind of impression I make.

_____ 20. I worry a lot about what my superiors think of me.

_____ 21. If I know someone is judging me, it has little effect on me.

_____ 22. I worry that others will think I am not worthwhile.

_____ 23. I worry very little about what others may think of me.

_____ 24. Sometimes I think I am too concerned with what other people think of me.

_____ 25. I often worry that I will say or do the wrong things.

_____ 26. I am often indifferent to the opinions others have of me.

_____ 27. I am usually confident that others will have a favorable impression of me.

_____ 28. I often worry that people who are important to me won't think very much of me.

_____ 29. I brood about the opinions my friends have about me.

_____ 30. I become tense and jittery if I know I am being judged by my superiors.

Appendix H

Reactions to Social Situations

REACTIONS TO SOCIAL SITUATIONS

Below are descriptions of social interactions involved in social relations which sometimes put people "on the spot". The purpose of this questionnaire is to find out how comfortably you can handle these situations. We are interested in two types of relationships: "DATING/ROMANTIC" relationships and "FRIENDSHIPS." Throughout the questionnaire we refer to the early stages of friendship formation as "acquaintanceship" and the early stages of romantic relations as "dating." We use the phrase "close companion" to refer to both close friendships and steady boy/girlfriend relations.

Use the 5-point scale provided below to indicate how comfortable and competent you would be in each situation. In some cases you will have had past experience to base your judgement on, and in others not. If you haven't had experience in a similar situation, indicate your best estimate of how you probably would respond. Be sure to fill in both the "DATING/ROMANCE" and "FRIENDSHIP" columns.

1 - I'm poor at this; I'd be so uncomfortable and unable to handle this situation I'd avoid it if possible.
2 - I'm only fair at this; I'd feel very uncomfortable and would have lots of difficulty handling this situation.
3 - I'm O.K. at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation.
4 - I'm good at this; I'd feel quite comfortable and able to handle this situation.
5 - I'm EXTREMELY good at this; I'd feel very comfortable and could handle this situation very well.

DATING/ ROMANCE	FRIENDSHIP	
_____	_____	1. Asking or suggesting to someone new that you get together and do something, e.g., go out together.
_____	_____	2. Making your views known when you disagree with the opinions of a date/acquaintance.
_____	_____	3. Revealing something intimate about yourself while talking with someone you're just getting to know.
_____	_____	4. Providing advice and emotional support for a close companion who is going through difficult times.
_____	_____	5. Finding ways to iron out differences with a close companion when having an intense fight which could seriously damage your relationship.
_____	_____	6. Finding and suggesting things to do with new people who you find interesting and attractive.
_____	_____	7. Asking a date/acquaintance to change an irritating mannerism.
_____	_____	8. Telling a close companion how much you appreciate and care for him/her.
_____	_____	9. Helping a close companion work through their thoughts and feelings about a major life decision, for example, a career choice.

1 - I'm poor at this; I'd be so uncomfortable and unable to handle this situation I'd avoid it if possible.
2 - I'm only fair at this; I'd feel very uncomfortable and would have lots of difficulty handling this situation.
3 - I'm O.K. at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation.
4 - I'm good at this; I'd feel quite comfortable and able to handle this situation.
5 - I'm EXTREMELY good at this; I'd feel very comfortable and could handle this situation very well.

DATING/ ROMANCE	FRIENDSHIP	
_____	_____	10. Being able to admit that you might be wrong when a disagreement with a close companion begins to build into a serious fight.
_____	_____	11. Carrying on conversations with someone new who you think you might like to get to know better.
_____	_____	12. Telling a close companion you don't like a certain way s/he has been treating you.
_____	_____	13. Confiding in a new friend/date and letting him/her see your softer, more sensitive side.
_____	_____	14. Being able to patiently and sensitively listen to a close companion "let off steam" about outside problems s/he is going through.
_____	_____	15. Being able to put begrudging (resentful) feelings aside when having a fight with a close companion.
_____	_____	16. Being an interesting and enjoyable person to be with when first getting to know people.
_____	_____	17. Saying "no" when a date/acquaintance asks you to do something you don't want to do.
_____	_____	18. Expressing affection and warmth to a close companion.
_____	_____	19. Helping a close companion cope with family or roommate problems.
_____	_____	20. When angry with a close companion, being able to accept that s/he has a valid point of view even if you don't agree with that view.
_____	_____	21. Introducing yourself to someone you might like to get to know (or date).
_____	_____	22. Turning down a request by a close companion that is unreasonable.
_____	_____	23. Telling a close companion some things about yourself that you're ashamed of.
_____	_____	24. When a close companion needs help and support, being able to give advice in ways that are received well.
_____	_____	25. When having a conflict with a close companion, really listening to his/her complaints and not trying to "read" his/her mind.
_____	_____	26. Presenting good first impressions to people you might like to become friends with (or date).

1 - I'm poor at this; I'd be so uncomfortable and unable to handle this situation I'd avoid it if possible.
2 - I'm only fair at this; I'd feel very uncomfortable and would have lots of difficulty handling this situation.
3 - I'm O.K. at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation.
4 - I'm good at this; I'd feel quite comfortable and able to handle this situation.
5 - I'm EXTREMELY good at this; I'd feel very comfortable and could handle this situation very well.

DATING/ ROMANCE	FRIENDSHIP		
_____	_____	27.	Standing up for your rights when a close companion is neglecting you or being inconsiderate.
_____	_____	28.	Letting a new companion get to know the "real you."
_____	_____	29.	Being a good and sensitive listener with a close companion who is upset.
_____	_____	30.	Refraining from saying things that might cause a disagreement with a close companion to turn into a big fight.
_____	_____	31.	Setting up things to do together with dates/acquaintances once you've begun to get to know each other.
_____	_____	32.	Confronting your close companion when s/he has broken a promise.
_____	_____	33.	Moving a new relationship to a more intimate and meaningful level.
_____	_____	34.	Being able to put your own feelings aside in order to do what is best to help a close companion with a problem.
_____	_____	35.	Being able to work through a specific problem with a close companion without resorting to global accusations ("You always do that.")
_____	_____	36.	Calling (on the phone) a new date/acquaintance to set up a time to get together and do something.
_____	_____	37.	Telling a date/acquaintance that s/he is doing something that embarasses you.
_____	_____	38.	Knowing how to move a conversation with a date/acquaintance beyond superficial talk in order to really get to know each other.
_____	_____	39.	Being able to say and do things to support a close companion when s/he is feeling down.
_____	_____	40.	Not exploding at a close companion (even when it is justified) in order to avoid a damaging fight.
_____	_____	41.	Going to parties or gatherings where you don't know people well in order to start up new relationships.
_____	_____	42.	Telling a date/acquaintance s/he has done something that made you angry.
_____	_____	43.	Letting down your protective "outer shell" and trusting a close companion.

1 - I'm poor at this; I'd be so uncomfortable and unable to handle this situation I'd avoid it if possible.
2 - I'm only fair at this; I'd feel very uncomfortable and would have lots of difficulty handling this situation.
3 - I'm O.K. at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation.
4 - I'm good at this; I'd feel quite comfortable and able to handle this situation.
5 - I'm EXTREMELY good at this; I'd feel very comfortable and could handle this situation very well.

DATING/ ROMANCE FRIENDSHIP

_____ _____ 44. Helping a close companion get to the heart of a problem s/he is experiencing.
_____ _____ 45. Being able to suggest reasonable compromises or solutions to fights with a close companion.
_____ _____ 46. Finding the "right things to say" to make yourself attractive and interesting to potential dates/ friends.
_____ _____ 47. Telling a close companion s/he has done something to hurt your feelings.
_____ _____ 48. Telling your close companion about the things that secretly make you anxious or afraid.
_____ _____ 49. Being able to show genuine empathetic concern when a close companion needs to talk about a problem (which may or may not interest you.)
_____ _____ 50. Being able to take a close companion's perspective in a fight and really understand his/her point.

Appendix I

Attribution Questionnaire

Below are descriptions of several positive and negative life situations. Following each are four kinds of explanations or reasons that might be given for the situations described. Read about each situation and form a mental image of it, based on similar experiences you have had or might have had recently. Next, use the following 5-point scale to rate each one of the four explanations as to the likelihood that it accounts for the situation described. Then go back and circle the letter of the one, main explanation.

1 - This is definitely not one of the causes or reasons
2 - This probably is not one of the causes or reasons
3 - This may be one of the causes or reasons
4 - This probably is one of the causes or reasons
5 - This definitely is one of the causes or reasons

How would you explain these events if they were happening to you, given your current life situation (in the past several weeks)? Rate each of the four for every situation, then circle the letter of the main one.

1. Suppose your casual friendships have been going well--you've been meeting and having enjoyable times with casual friends. What are the reasons? Rate each of the following explanations using the scale above then circle the letter of the main one.

   1 2 3 4 5 a. I'm the type of person who finds it easy to have casual friendships.
   1 2 3 4 5 b. I've been making an effort lately.
   1 2 3 4 5 c. It's easy around here to have casual friends.
   1 2 3 4 5 d. I've been lucky lately.

2. Suppose you've been having difficulty in the area of casual friendships. Why? Rate each of the following explanations using the scale above, then circle the letter of the main one.

   1 2 3 4 5 a. I've been unlucky lately.
   1 2 3 4 5 b. I'm not the type of person for whom it is easy to have casual friendships.
   1 2 3 4 5 c. It's not easy around here to have casual friendships.
   1 2 3 4 5 d. I haven't been trying very hard lately.

3. Suppose you've been having difficulty with love/romance--i.e., developing or maintaining a sustained romantic relationship. Why? (Rate and circle)

   1 2 3 4 5 a. I haven't been trying very hard lately.
   1 2 3 4 5 b. I've been unlucky lately.
   1 2 3 4 5 c. It is difficult around here to find the right person.
   1 2 3 4 5 d. I am not the type that easily develops and/or maintains a romantic relationship.

1 - This is definitely not one of the causes or reasons
2 - This probably is not one of the causes or reasons
3 - This may be one of the causes or reasons
4 - This probably is one of the causes or reasons
5 - This definitely is one of the causes or reasons

4. Suppose things have been going very well in the area of sustained romantic relations. Why? (Rate and circle).

1 2 3 4 5 a. My partner makes romantic relations easy.
1 2 3 4 5 b. I'm the kind of person who can make romantic relations work.
1 2 3 4 5 c. I've been trying hard lately.
1 2 3 4 5 d. I've been luckly lately.

5. Suppose you've been having trouble with close friendships, i.e., with making and maintaining close friendships. Why? (Rate and circle).

1 2 3 4 5 a. I haven't been trying very hard lately.
1 2 3 4 5 b. It's difficult around here to make and maintain close friendships.
1 2 3 4 5 c. Circumstances haven't been right lately.
1 2 3 4 5 d. I'm not the kind of person who easily makes and maintains close friendships.

6. Suppose things have been gong well in the area of close friendships. Why? (Rate and circle).

1 2 3 4 5 a. I am the kind of person for whom it is easy to have close friends.
1 2 3 4 5 b. I've been trying hard lately.
1 2 3 4 5 c. It's easy around here to have close friends.
1 2 3 4 5 d. Lately, circumstances have been right.

7. Suppose your dating life has been going very well. Why? (Rate and circle).

1 2 3 4 5 a. It's easy around here to date due to the people and/or circumstances.
1 2 3 4 5 b. I've been making an effort.
1 2 3 4 5 c. I've been lucky lately.
1 2 3 4 5 d. I am the type of person for whom it is easy to have a good dating life.

8. Suppose your dating life has not been going very well. Why? (Rate and circle).

1 2 3 4 5 a. I'm not the type of person for whom it's easy to have a good dating life.
1 2 3 4 5 b. I have not been trying very hard.
1 2 3 4 5 c. I've been unlucky lately.
1 2 3 4 5 d. It is difficult around here to have a good dating life.

Appendix J

Coping Style Questionnaire

9. If you were feeling dissatisfied with your social life (e.g., feeling lonely or left out, not having enough friends, not having a steady boy/girlfriend or not being close to anyone), how would you probably respond? Rate each of the following reactions on this scale:

1 - Very unlikely 3 - Neither 5 - Very likely
2 - Unlikely 4 - Likely

____ a. Ease the pain by drinking or taking drugs.
____ b. Try to make yourself more interesting or attractive.
____ c. Try to look on the bright side; concentrate on possible benefits of this experience.
____ d. Devote more time to physical exercise (e.g., jogging).
____ e. Work at improving relationships with the people you know.
____ f. Daydream or fantasize about a better time or place.
____ g. Remember that there are people a lot worse off.
____ h. Spend more time reading.
____ i. Tell yourself not to overreact; not to get too upset.
____ j. Try to figure out what's wrong and what can be done.
____ k. Eat, watch TV, mope.
____ l. Do something creative, such as paint, write or play a musical instrument.
____ m. Go places where you will meet people.
____ n. Do interesting things by yourself.
____ o. Don't let it get to you; refuse to dwell on it.
____ p. Feel sorry for yourself.
____ q. Attend meetings, join groups, or engage in recreational activities with others.
____ r. Wish that the situation would change, that the problems would go away.
____ s. Tell yourself that things will get better.
____ t. Work on hobbies.
____ u. Put more time into work or schoolwork.
____ v. Do nothing, sleep.
____ w. Try to improve your social skills.
____ v. Tell yourself that most people are lonely from time to time.

Appendix K

Interaction Diary

Instructions for Interaction Diaries

The following are the explanations of the kind of information I would like you to provide me in your interaction diaries. For each of the five columns on the diary please provide the appropriate information as follows:

Type of Activity: During this period of time I was involved in:

work
eating
studying
in class
recreation
other

Contact: Did you engage in the activity:

alone
with one other person of the same sex
with one other person of the opposite sex
a same sex group
an opposite sex group
a mixed sex group

Relationship of Contact: Were the contacts with:

strangers
acquaintances
friends
close friends
relatives

Conversation Length: During the activity was your conversation:

none
less than 10 minutes
more than 10 minutes

Intimacy of Activity or Conversation: low
medium
high

NAME: _____ DAY: _____

TIME	ACTIVITY TYPE	CONTACT	RELATIONSHIP OF CONTACTS	CONVERSATION LENGTH	INTIMACY
9 AM - 9:30					
9:30 - 10 AM					
10 AM - 10:30					
10:30 - 11 AM					
11 AM - 12					
12 - 12:30					
12:30 - 1 PM					
1 PM - 1:30					
1:30 - 2 PM					
2 PM - 2:30					
2:30 - 3 PM					
3 PM - 3:30					
3:30 - 4 PM					
4 PM - 4:30					
4:30 - 5 PM					
5 PM - 5:30					
5:30 - 6 PM					
6 PM - 6:30					
6:30 - 7 PM					
7 PM - 7:30					
7:30 - 8 PM					
8 PM - 8:30					
8:30 - 9 PM					
9 PM - 9:30					

Appendix L

Videotape Coding Form

MIN	10	20	30	40	50	60
1	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
2	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
3	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
4	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
5	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
6	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
7	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
8	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO
9	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO	EC PR Q TC PO

NAME: _____

PRE/POST

Appendix M

Social Skill Training Procedures and Handouts

Social Skills Training

Social Skills Training

Things to read for background information:

I. Wilson & O'Leary Principles of Behavior Therapy

1) Chapter 7 - modelling. esp. participant modelling

II. Goldfried & Davison Clinical Behavior Therapy

1) Chapter 7 - relaxation training

III. Handouts from Relaxation Workbook

Listening Skills taken from Gallup, C. (1980). A study to determine the effectiveness of a social skill training program in reducing the loneliness of social isolation. Unpublished doctoral dissertation. Ohio University.

Paraphrasing taken from Brammer, L. (1973). The helping relationship. Englewood Cliffs, New Jersey: Prentice-Hall Inc., pp. 84-85.

Self-disclosure taken from Gallup, C. (1980).

Initiating activities taken from Gallup, C. (1980).

Social Skills Training

Week One

I. Collect Interaction Diaries

- give verbal reward for completion
- answer questions

II. Name Game

A person says her name, the next person says the name of the person who went before, then their own and so on. Begin with the therapist. (Repeat on Week 2).

III. Establishing Ground Rules

Distribute the ground rules handout.

These rules should be read aloud by the group leader and their rationale should be discussed along the following lines:

"People usually have a difficult time forming trusting relationships. It will be easier for all of us to work towards building warm, trusting relationships within the group if we are confident that any personal information we share during sessions will not travel outside the group."

IV. Warm-up Interactions

Distribute conversation topic handouts.

Explain rationale for this activity in terms of helping to acquaint group members with one another -- an "ice-breaking exercise".

Create pairs of group members for five minute interactions. Three of these five minute interactions should be engaged in by each group member. Be sure to change the dyad memberships every five (5) minutes. (15 minutes)

V. Present Rationale for S.S.T. Treatment of Loneliness

Basically this entails:

1) a description of loneliness in terms of the relative absence of important social skills and

2) an emphasis on the success of this kind of treatment in alleviating loneliness.

First distribute the "Loneliness is _____." sheets and have group members fill them in. (Approximately 10 to 15 minutes should be devoted to discussion of these.)

"If asked, you would likely say that you are lonely because you lack friendships or even more intimate relationships. That answer leaves a still more basic question unanswered. That being "Why do I lack satisfying relationships?" I strongly believe that people lack satisfying social relationships because they lack certain important social responses. Put differently, you may not know how to act in social situations in such a way as to foster friendships. In the next several weeks we will work together to learn specific social behaviors that have been proven to be related to success in interpersonal relationship building. In order to learn these behaviors we will discuss them in group, practice them in group, and then practice them at home. At home

practice is essential in order to become socially more skillful. Are there any questions before we continue?"

VI. Relaxation Training

(approximately 45 minutes)

Present orientation to the procedure

Many studies have shown that relaxing ones muscles dramatically reduces anxiety. This is likely due to the incompatibility of relaxation and anxiety. It is simply impossible for you to feel warm and comfortably relaxed and at the same time feel anxious and distressed. When you relax your muscles you reduce your pulse rate and your blood pressure and respiration rate.

The process of learning to relax involves learning to distinguish between feelings associated with relaxation and those feelings associated with tension. You alternately tense and relax various muscle groups while focusing your attention on the differences between the two states. We will practice relaxing together in the group in today's session, as well as in several other group meetings. In addition, it is essential that each of you practice relaxation at home.

NOW GO OVER THE ORIENTATION POINTS

When you are finished and have answered questions, you can go through the relaxation script. Relaxation training will complete Week One. Be sure to distribute the handouts at the end of the session and remind group members to practice relaxation at home.

Stress importance of at home practice.

Guidelines for Group Session

Things to do:

1) Listen actively to everyone.

2) Try to be aware of your own feelings and thoughts.

3) Be as open and honest as you can but try to be sensitive to the needs of others as well.

4) Try to focus on "the here and now" and not on the past.

5) What is said within the group sessions by anyone is confidential and must not be repeated outside the group, unless it refers only to yourself. This rules applies to everything that is said.

Statement of Ethics

1) It is expected that each group member will respect and try to help the other group members. In the group this means watching and listening when someone else is speaking. Outside the group this means maintaining confidentiality.

2) It is expected that each group member will try as hard as possible throughout the program.

   In the group this means attending all sessions on time and staying to the end of the meeting. It also means completing all questionnaires and other assignments.

WARM-UP DISCUSSION TOPICS

1) I'm in ..... faculty, taking _____ course and am in ..... year.

2) I'm from .....

3) My favorite course is .....

4) The main reason I'm taking the training is .....

5) One major thing I would like to learn from this course is .....

6) I live .....

Relaxation Training Orientation

Before beginning to learn how to make yourself relax here are some important pieces of information for you to know.

1) You are about to learn a new skill, like driving a car or learning to play a musical instrument. People learn to be tense and anxious. Therefore, we can learn to relax ourselves. All that is necessary is practice.
2) As you begin to learn to relax you may have some unusual feelings. e.g., tinglings in your fingers or a floating sensation. These are signs that your muscles are loosening up--good signs!
3) It is important to let yourself go, to simply "Go with" the experience.
4) You always remain in control. You are relaxing yourself through these procedures. So, instead of losing control, you are gaining it as you learn to control your tension.
5) You are actually attaining greater control over yourself by letting go! It is rather like learning to do the back float. In order to be able to float well, you must let go and allow the natural buoyancy of your body interact with the specific gravity of the water.
6) It is important to remember that this is a practiced skill. Initially many people feel little difference after relaxation exercises. It takes practice.
7) Remember, you are learning to relax so that when you find yourself in a social situation (or exam situation, etc.) you can relax away the anxiety and cope better.

Progressive Relaxation

You cannot have the feeling of warm well-being in your body and at the same time experience psychological stress. Progressive relaxation of your muscles reduces pulse rate and blood pressure as well as decreasing perspiration and respiration rates. Deep muscle relaxation, when successfully mastered, can be used as an anti-anxiety pill.

Edmond Jacobson, a Chicago physician, published the book Progressive Relaxation in 1929. In this book he described his deep muscle relaxation technique, which he asserted required no imagination, willpower or suggestion. His technique is based on the premise that the body responds to anxiety provoking thoughts and events with muscle tension. This physiological tension, in turn, increases the subjective experience of anxiety. Deep muscle relaxation reduces physiological tension and is incompatible with anxiety. The habit of responding with one blocks the habit of responding with the other.

Symptom Effectiveness

Excellent results have been found in the treatment of muscular tension, anxiety, insomnia, depression, fatigue, muscle spasms, neck and back pain, high blood pressure, mild phobias and stuttering.

Instructions

Most people do not realize which of their muscles are chronically tense. Progressive relaxation provides a way of identifying particular

muscles and muscle groups and distinguishing between sensations of tension and deep relaxation. Four major muscle groups will be discovered:

1. Hands, forearms and biceps.
2. Head, face, throat and shoulders, including concentration on forehead, cheeks, nose, eyes, jaws, lips, tongue and neck. Considerable attention is devoted to your head, because from the emotional point of view, the most important muscles in your body are situated in and around this region.
3. Chest, stomach and lower back.
4. Thighs, buttocks, calves and feet.

Progressive relaxation can be practiced lying down or in a chair with your head supported. Each muscle or muscle grouping is tensed from five to seven seconds and then relaxed for twenty to thirty seconds. This procedure is repeated at least once. If an area remains tense, you can practice up to five times. You may also find it useful to use the following relaxing expressions when untensing:

Let go of the tension.

Throw away the tension -- I am feeling calm and rested.

Relax and smooth out the muscles.

Let the tension dissolve away.

Once the procedure is familiar enough to be remembered, keep your eyes closed and focus attention on just one muscle group at a time. The instructions for progressive relaxation are divided into two sections. The first part, which you may wish to tape and replay when practicing,

will familiarize you with the muscles in your body which are most commonly tense. The second section shortens the procedure by simultaneously tensing and relaxing many muscles at one time so that deep muscle relaxation can be achieved in a very brief period.

Basic Procedure

Get in a comfortable position and relax. Now clench your right fist, tighter and tighter, studying the tension as you do so. Keep it clenched and notice the tension in your fist, hand and forearm. Now relax. Feel the looseness in your right hand, and notice the contrast with the tension. Repeat this procedure with your right first again, always noticing as you relax that this is the opposite of tension -- relax and feel the difference. Repeat the entire procedure with your left fist, then both fists at once.

Now bend your elbows and tense your biceps. Tense them as hard as you can and observe the feeling of tautness. Relax, straighten out your arms. Let the relaxation develop and feel that difference. Repeat this, and all succeeding procedures at least once.

Turning attention to your head, wrinkle your forehead as tight as you can. Now relax and smooth it out. Let yourself imagine your entire forehead and scalp becoming smooth and at rest. Now frown and notice the strain spreading throughout your forehead. Let go. Allow your brow to become smooth again. Close your eyes now, squint them tighter. Look for the tension. Relax your eyes. Let them remain closed gently and comfortably. Now clench your jaw, bite hard, notice the tension

throughout your jaw. Relax your jaw. When the jaw is relaxed, your lips will be slightly parted. Let yourself really appreciate the contrast between tension and relaxation. Now press your tongue against the roof of your mouth. Feel the ache in the back of your mouth. Relax. Press your lips now, purse them into an "O". Relax your lips. Notice that your forehead, scalp, eyes, jaw, tongue and lips are all relaxed.

Give your entire body a chance to relax. Feel the comfort and the heaviness. Now breathe in and fill your lungs completely. Hold your breath. Notice the tension. Now exhale, let your chest become loose, let the air hiss out. Continue relaxing, letting your breath come freely and gently. Repeat this several times, noticing the tension draining from your body as you exhale. Next, tighten your stomach and hold. Note the tension, then relax. Now place your hand on your stomach. Breathe deeply into your stomach, pushing your hand up. Hold, and relax. Feel the contrast of relaxation as the air rushes out. Now arch your back, without straining. Keep the rest of your body as relaxed as possible. Focus on the tension in your lower back. Now relax, deeper and deeper.

Tighten your buttocks and thighs. Flex your thighs by pressing down your heels as hard as you can. Relax and feel the difference. Now curl your toes downward, making your calves tense. Study the tension. Relax, now bend your toes toward your face, creating tension in your shins. Relax again.

Feel the heaviness throughout your lower body as the relaxation deepens. Relax your feet, ankles, calves, shins, knees, thighs and buttocks. Now let the relaxation spread to your stomach, lower back and

chest. Let go more and more. Experience the relaxation deepening in your shoulders, arms and hands. Deeper and deeper. Notice the feeling of looseness and relaxation in your neck, jaws and all your facial muscles.

Shorthand Procedure

The following is a procedure for achieving deep muscle relaxation quickly. Whole muscle groups are simultaneously tensed and then relaxed. As before, repeat each procedure at least once, tensing each muscle group from five to seven seconds and then relaxing from 20 to 30 seconds. Remember to notice the contrast between the sensations of tension and relaxation.

1. Curl both fists, tightening biceps and forearms (Charles Atlas pose). Relax.
2. Wrinkle up forehead. At the same time, press your head as far back as possible, roll it clockwise in a complete circle, reverse. Now wrinkle up the muscles of your face like a walnut: frowning, eyes squinted, lips pursed, tongue pressing the roof of the mouth, and shoulders hunched. Relax.
3. Arch back as you take a deep breath into the chest. Hold. Relax. Take a deep breath, pressing out the stomach. Hold. Relax.
4. Pull feet and toes back toward face, tightening shins. Hold. Relax. Curl toes, simultaneously tightening calves, thighs and buttocks. Relax.

Social Skills Training

WEEK TWO

I. Go over the experiences of the group members in practicing relaxation training.

II. Name Game

Procedure - same as in Week One.

III. Listening Skills, Orientation and Practice

Within the active listening section the following responses are taught: 1) eye contact, 2) attentive body posture (lead forward, do not shift about excessively), 3) nonverbal responses indicating interest (head nods), and 4) "door openers" that invite the other person to share her ideas and that convey acceptance.

Rationale for Group

"A very basic and extremely important way of fostering friendships is to indicate to the other person that you are sincerely interested in getting to know them better. One particularly effective way of doing that is to really listen to what that person is saying. There is a difference between hearing what someone says and really listening to them. Listening is not passive but involves certain notable behaviors on your part.

In this week's session we will practice the following listening

skills: (1) facing the person; (2) making eye contact; (3) showing a facial expression that matches the other person's message; (4) expressing nonverbal responses that show interest and understanding e.g. head nodding, shoulder shrugging.

Before we go on to practice these behaviors, let's try to think of some behaviors that are likely to show disinterest.

Modeling

a) At this point ask for suggestions. Then model inappropriate behavior with a group member and then ask them what you did wrong and how that group member felt during the interaction.

b) Now model the first four listening skills in an interaction with a group member.

Discuss the model with the larger group. Then break them up into pairs to practice the skills. Circulate and give feedback to group members. Three, five minute practice role plays should be conducted by each group member; each with a different person.

Verbal Responses

"Door-openers" are basically ways of inviting the other person to say more. They don't give any information about your own opinions; they simply invite the other person to share more information. They also communicate to the other person that you accept their right to have their own ideas and opinions. Door-openers can be as simple as "I see" or "Umm hmm" or as explicit as "Tell me more" or "Sounds like you have something

to say about this."

Now hand out the Active Listening handouts and get the people to turn to page two; the door-openers. Go over them and discuss their familiarity and relevance to the group members.

Then do the three five minute practice role plays.

Homework Contracting

Contract with the group members to practice these responses at home in the ensuing week, along with progressive relaxation.

- Have individuals record their experience in practicing active listening at home.
- Have each person think of one individual that they would like to know better and contract to practice active listening with that person.

Advise the group members to think about what they already know about that person and to try using active listening to find our more.

IV. Progressive Relaxation

Conclude week two with relaxation training, use the script again. You may have to move more quickly through it.

Listening Skills

There is a difference between listening and hearing. Listening involves showing the other person that you are really interested in what he/she has to say. This kind of listening is essential to effective communication.

There are certain behaviors that are more likely to improve communication. Some important ones include: (1) directly facing the other person; (2) making eye contact; (3) showing a facial expression that matches the other person's message; (4) expressing nonverbal responses that show the other person that you are following what he/she is saying, e.g., responses such as head nodding or shoulder shrugging when appropriate can indicate that you're listening.

Some behaviors may interfere with effective communication. Some examples of those interfering behaviors are: (1) eye wandering; (2) glancing at your watch; and (3) frequent shifting about as you sit or stand. These three responses along with many others indicate that you are not really interested, that you're not really listening.

There are some verbal ways of showing that you are listening: As you read these "door-openers" remember:

1) don't feel that you must memorize these responses. All you have to do is get a feel for them and put them into your own words, and;

2) when you verbalize a "door-opener" try to make it match with your non-verbal behavior. Show your interest nonverbally by doing such things as leaning forward.

The "door-opener" is basically an invitation to the other person to say more. These responses don't communicate any of the listener's own ideas or feelings, yet they invite the person to share his/her own ideas or feeling. They open the door for him/her, they invite him to talk. The simplest door openers include:

I see. Oh. Really. They don't say. Interesting.

Mmhmm. How about that. No kidding. You did, huh. Is that so!

Other door-openers are more explicit in conveying an invitation to talk or to say more, such as:

Tell me about it.

I'd like to hear about it.

Tell me more.

I'd be interested in your point of view.

Would you like to talk about it.

Let's discuss it.

Let's hear what you have to say.

Tell me the whole story.

Shoot, I'm listening.

Sounds like you've got something to say about this.

This seems like something important to you.

These door-openers encourage people to start or to continue talking. They also keep the ball with him. They don't have the effect of grabbing the ball away from him, as do messages of your own such as giving advice, teaching etc. These door-openers keep your own feelings and thoughts out of the communication process.

These door-openers also convey acceptance of the person and respect for him/her as a person by telling him/her, in effect:

You have the right to express how you feel.

I respect you as a person with ideas and feelings.

I really want to hear your point of view.

Your ideas are worthy of being listened to.

I am interested in you.

I want to relate to you, get to know you better.

ACTIVE LISTENING HOMEWORK

Day/Time	Situation	Response of Other Person	How Did I Feel About My Efforts	What Might I Have Done Differently

Social Skills Training

Week Three

I. Contract Accountability

- concerning relaxation and active listening practice
- answer any questions concerning both

II. Continue role play practice of active listening components.

Two role plays per person entailing practice and ongoing feedback. (approximately 15 to 20 minutes)

III. Paraphrasing: Orientation and Practice

As with all the other social skills to be trained, the process begins with the provision of information by the group leader. A definition of paraphrasing should be provided along with examples. Finally, immediately before the women begin to practice the skill, the leader should model both how not to and how to paraphrase. The definition of paraphrasing should resemble closely the following description:

> Paraphrasing is another way of communicating to another person that you are listening to him or her. It is a kind of verbal response which contains no actual message concerning your own opinions but only mirrors or feeds back to the other person his or her own previous message. By paraphrasing you demonstrate that you truly understood the message that was sent. For example, listen to the

following dialogue between a parent and child. The parent is practicing paraphrasing.

Child: What do they do with people when they die?
Parent: You've been thinking about people dying and wondering where they go.
Child: Yeah. You never see them again do you?

You can see in this example that the parent did not send any personal messages. She merely repeated the child's own message in new words. She also did not answer the child's first question. Instead she communicated understanding of the child's feelings of confusion concerning the meaning of death.

Because paraphrasing is a new way of talking, initially you may feel phony or artificial when you do it. Like learning any skill, eg. tennis, you will feel clumsy at first but with practice you will feel more natural at it.

While you are learning to paraphrase it will be helpful to ask yourself what the other person's basic message (including both thoughts and feelings) is. Then upon arriving at the answer to that question, give a brief summary of what you have heard. So for example:

Person One: I Just don't understand. One minute she tells me to do this, and the next minute to do that.

Person Two: You are really confused by her behavior.

Person One: Yeah, I am, besides ...bleah bleah bleah.

You can see in this example that Person One is likely to feel understood as a result of Person Two's use of paraphrasing. The ultimate result of paraphrasing is that the person feels encouraged to continue talking with you.

Let's conclude by going over the three main rules of paraphrasing:

1) Listen carefully to the person's message.

2) Restate that basic message concisely.

3) Look for a clue or ask for a response from the person which confirms or disconfirms the accuracy of your paraphrase.

Modeling

Now practice paraphrasing with a group member in order to model both how not to and how to perform the behavior appropriately. The "how not to" model would involve advice giving or direct question answering, or changing the conversation focus to onself, giving orders, disapproving.

Role Play

Finally the remainder of the session should be devoted to two role play practices per individual. Circulate and give feedback concerning their performances.

Homework

Be sure to remind the group members to practice paraphrasing at home as part of "active listening". They may want to practice on the individual chosen in week two. Circulate the handouts on paraphrasing and the homework recording sheets.

Paraphrasing

Showing the other person that you're really involved in following what he/she is saying is crucial to good communication. One of the best ways of doing this is through paraphrasing.

Paraphrasing is a method of restating the other person's message in similar, but usually fewer, words. One purpose of paraphrasing is to test your understanding of what the other person has said. Another purpose is to communicate to the person that you are trying to understand his/her basic message, and if successful, that you have been with him/her during the person's verbal explorations. A paraphrasing executed to the other person's satisfaction is one objective definition of understanding.

What you do is translate your perceptions of what the person is saying into a more simple, precise and culturally relevant wording. You repeat or feedback only the person's message and avoid adding your own ideas. To help in this process you constantly ask yourself the following questions: "What is the person's basic thinking and feeling message to me?" At the time of a natural break in the flow of ideas and feelings you give a concise summary of what you've been hearing. You also look for some cue that the paraphrase has been on target. Examples of paraphrasing are:

Person One: I really think that he is a very nice guy; he's so thoughtful and kind. He calls me alot. He's fun to get to go out with.

Person Two: You like him alot, then.

Person One: I do, very much.

Person One: I just don't understand. One minute she tells me to do this, and the next minute to do that.

Person Two: She really confuses you.

Person One: Yeah, she sure does, and besides ...

Warning

There are some problems in using paraphrasing. If a person is not careful, he/she can develop a highly stylized way of responding which may be annoying to the other person. He/she may say repeatedly, e.g., "I hear you saying..." Using a paraphrase can seem a bit artificial at first until you experience some rewards in the form of encouraging responses from the other person. After a while it feels more natural.

The other person feels understood as a consequence of paraphrasing. The person may also experience more specific results in the form of a clearer perception of what he/she said and a sense of direction to rambling statements. He/she will tend to appreciate the person who uses paraphrasing skillfully. The final effect of paraphrasing statements is that the person feels encouraged to go on. Thus using paraphrasing can lead to improved and new satisfying communication in your everyday conversations.

Summary of Guidelines for Paraphrasing

1) Listen to the basic message of the other person.

2) Restate to the other person a concise and simple summary of his/her basic message.

3) Observe a cue, or ask for a response, from the other person which confirms or disconfirms the accuracy of the paraphrase.

PARAPHRASING HOMEWORK

Day/Time	Situation	Response of Other Person	How Did I Feel About My Efforts	What Might I Have Done Differently

Social Skills Training

Week Four

I. Discuss the group members' experiences with active listening at home. Collect homework sheets.

II. Spend 15 to 20 minutes in behavioral rehearsal of paraphrasing and active listening. Circulate and give feedback, model appropriate behavior where necessary.

III. Giving and Receiving Social Feedback Rationale

"When we give someone "feedback" we present him or her with specific information about how he or she is affecting us. The two most important rules to follow in giving feedback are:

1) To be very specific, not general.
General: He is a terrible worker.
Specific: He did not hand in his essay on time last week.

2) To be descriptive of the person's behavior, not evaluative or judgemental.
Evaluative: You sounded self-centred.
Descriptive: You talked about yourself during the entire coffee break."

Distribute Feedback handout.

Now go over each of the feedback aids. Have group members follow along on the handout. At the end of this process stress the first two main rules of feedback and model giving feedback using the following script.

> "Background: I am trying to cram for a test but my roomate is playing her radio so loud that I am being distracted.
>
> Me: Sharon, I am having a hard time concentrating with the radio on. Could you turn it down while I am cramming tonight?
>
> vs.
>
> Sharon, you are terribly inconsiderate. How can I study when you have your damn radio blaring all hours?

Remainder of session: Role Plays

Circulate and give feedback. Use your own feedback as examples of how to follow the rules.

Once again allow for at least three role plays per person.

REMIND THE GROUP MEMBERS ABOUT HOMEWORK PRACTICE OF FEEDBACK, ACTIVE LISTENING AND PARAPHRASING.

Hand out homework sheet.

FEEDBACK

Feedback is information given to a person about how he affects others. To be useful, feedback must be specific, rather than general, and descriptive rather than evaluative.

1. Be Specific, Not General

   General: "He did a real good job; I thought it was really great."

   General: "It wasn't as good as last time."

   Specific: "Three times you cut her off before she had finished talking."

2. Be Descriptive, Not Evaluating

   Describe visible evidence - actions that are open to anybody's observations..

   Evaluative: "You sounded sort of self-centred."

   Evaluative: "You always want to hog the centre of attention."

   Descriptive: "You talked about yourself during the entire role-play."

If possible, describe how you think you would have felt in the other's position:

   Example: "If you had been talking to me, I would have felt put down when you said, 'That's okay. I'll go along.'"

AIDS FOR GIVING AND RECEIVING FEEDBACK[1]

Some of the most important data we can receive from others (or give to others) consists of feedback related to our behavior. Such feedback can provide learning opportunities for each of us if we can use the reactions of others as a mirror for observing the consequences of our behavior. Such personal data feedback helps to make us more aware of what we do and how we do it, thus increasing our ability to modify and change our behavior and to become more effective in our interactions with others.

To help us develop and use the techniques of feedback for personal growth, it is necessary to understand certain characteristics of the process. The following is a brief outline of some factors which may assist us in making better use of feedback, both as the giver and the receiver of feedback. This list is only a starting point. You may wish to add further items to it.

1. Focus feedback on behavior rather than the person.

It is important that we refer to what a person does rather than comment on what we imagine he is. This focus on behavior further implies that we use adverbs (which relate to actions) rather than adjectives (which related to qualities) when referring to a person. Thus we might say a person "talked considerably in this meeting," rather than this

[1]Adapted from lecture materials used in laboratory training by George R. Lehner, Ph.D., Professor of Psychology, University of California, Los Angeles.

person "is a loudmouth." When we talk in terms of "personality traits" it implies inherited, constant qualities difficult, if not impossible, to change. Focusing on behavior implies that it is something related to a specific situation that might be changed. It is less threatening to a person to hear comments about his behavior than his "traits".

2. Focus feedback on observations rather than inferences.

Observations refer to what we can see or hear in the behavior of another person, while inferences refer to interpretations and conclusions which we make from what we see or hear. In a sense, inferences or conclusions about a person contaminate our observations, thus clouding the feedback for another person. When inferences or conclusions are shared and it may be valuable to have this data, it is important that they be so identified.

3. Focus feedback on description rather than judgement.

The effort to describe represents a process for reporting what occurred, while judgement refers to an evaluation in terms of good or bad, right or wrong, nice or not nice. The judgements arise out of a personal frame of reference or values, whereas description represents neutral (as far as possible) reporting.

4. Focus feedback on descriptions of behavior which are in terms of "more or less" rather than in terms of "either/or".

The "more or less" terminology implies a continuum on which any

behavior may fall, stressing quantity, which is objective and measurable, rather than quality, which is subjective and judgemental. Thus, participation of a person may fall on a continuum from low participation to high participation, rather than "good" or "bad" participation. Not to think in terms of "more or less" and the use of continue is to trap ourselves into thinking in categories which may then represent serious distortions of reality.

5. Focus feedback on behavior related to a specific situation, preferably to the "here and now" rather than to behavior in the abstract, placing it in the "there and then".

What you and I do is always tied in some way to time and place, and we increase our understanding of behavior by keeping it tied to time and place. Feedback is generally more meaningful if given as soon as appropriate after the observation or reactions occur, thus keeping it concrete and relatively free of distortions that come with the lapse of time.

6. Focus feedback on the sharing of ideas and information rather than on giving advice

By sharing ideas and information we leave the person free to decide for himself, in the light of his own goals in a particular situation at a particular time, how to use the ideas and the information. When we give advice we tell him what to do with the information, and in that sense we take away his freedom to determine for himself what is for him the most appropriate course of action.

7. Focus feedback on exploration of alternatives rather than answers or solutions

The more we can focus on a variety of procedures and means for the attainment of a particular goal, the less likely we are to accept prematurely a particular answer or solution - which may or may not fit our particular problem. Many of us go around with a collation of answers and solutions for which there are no problems.

8. Focus feedback on the value it may have to the recipient, not on the value or "release" that it provides the person giving the feedback.

The feedback provided should serve the needs of the recipient rather than the needs of the giver. Help and feedback need to be given and heard as an offer, not an imposition.

9. Focus feedback on the amount of information that the person receiving it can use, rather than on the amount that you have which you might like to give.

To overload a person with feedback is to reduce the possibility that he may use what he receives effectively. When we give more than can be used we may be satisfying some need for ourselves rather than helping the other person.

10. Focus feedback on time and place so that personal data can be shared at appropriate times

Because the reception and use of personal feedback involves many

possible emotional reactions, it is important to be sensitive to when it is appropriate to provide feedback. Excellent feedback present at an inappropriate time may do more harm than good.

11. Focus feedback on what is said rather than why it is said.

The aspects of feedback which relate to the what, how, when, where of what is said are observable characteristics. The why of what is said takes us from the observable to the inferred, and brings up questions of "motive" or "intent."

It is maybe helpful to think of "why" in terms of a specifiable goal or goals--which can then be considered in terms of time, place, procedures, probabilities of attainment, etc. To make assumptions about the motives of the person giving feedback may prevent us from hearing or cause us to distort what is said. In short, if I question "why" a person gives me feedback, I may not hear what he says.

In short, the giving (and receiving) of feedback requires courage, skill, understanding, and respect for self and others.

Feedback Homework

Relationship	Situation	What did I say?	Other Person's Responses	How Successful - Should I Have Acted Differently

Social Skills Training

Week Five

I. Check out the homework experiences of each group member.

II. Practice Role Plays of Feedback Skills, Paraphrasing and Active Listening.

Have group members practice real life situations they have experienced as troublesome.

Make use of video to sample role plays for each individual. Play back each to the whole group and have them practice feedback skills in commenting on their performances.

Social Skills Training

Week Six

I. Homework Review

Review the experiences of the group members in putting to use the various social skills taught in the sessions. Answer any questions. Collect homework sheets.

Personal Attention Responding

This class of behaviors should be presented as yet another way of establishing more personally satisfying and effective interpersonal relationships. It should be defined as follows:

> "When we want to show that we are paying full attention to someone we can:
>
> 1) Ask questions about his or her ideas, opinions, special hobbies, etc.
>
> or
>
> 2) We can make references to those ideas and interests in our own conversation.
>
> For example, if I were visiting with someone who had indicated an interest in windsurfing I might make an effort to ask questions related to that

sport and I might paraphrase the person's message of interest.

eg. A: How long have you been involved in windsurfing?

B: Oh, for quite awhile ...but lately it has become even more important to me.

A: It sounds like your favorite passtime is windsurfing right now.

B: Yeah, I guess that's true. It's just so exhilarating...

I'd like you to break up into pairs and practice asking one another questions or making encouraging references to the other person's interest, etc. Remember that the door openers, active listening, body language and paraphrasing skills we have been practicing will be useful in these role plays as well."

Feedback During Roleplays

Circulate among the dyads giving feedback on all these social skills. Model the appropriate response when it seems necessary.

Homework Contracting

Have group members practice personal attention responding during the ensuing week. Distribute homework sheets.

Discuss how they are doing with their relaxation practice.

Personal Attention Responding

Relationship	How did I perform P.A.R.	How did other person respond?	How did I feel about my efforts?	Should I have done anything differently?

Social Skills Training

Week Seven

I. Review the successes and failures of the group members in their efforts to use the trained behaviors in the "real" world. Answer any questions. Collect homework sheets.

II. Making "I" Statements

"Today we are going to work on a style of communication which is useful in deepening ongoing relationships. One important way of getting to know someone better is to allow them to know you better, that is to share more personal information with them. This process of sharing is called self disclosure. In order to self-disclose you must take a risk. Everytime we let someone else know a little bit more about our true selves, we run a risk of rejection. However, we also stand to gain greater self-understanding as well as the terrific feeling of being understood and accepted by a friend. As two people find that there are an increasing number of things that can be shared in mutually helpful ways, a mutual trust develops. For

example, if I am becoming acquainted with a woman in residence I might gradually move from talking about concrete, safe topics such as school or the conditions in residence to sharing how I feel about certain more personal issues - eg. being away from home. Finally I might begin to talk about such issues as the difficulties of establishing friendships or my loneliness without a boyfriend. You can see that I began by talking about things that were unrelated to my own feelings and ended up sharing important issues taking place in the here and now. I end up talking about how I am feeling in the present. I might talk about my relationship with her and how I feel when I am with her. Listen to the following script and see if you can hear the here and now orientation as well as the feelings shared.

Paul: Jill, I like you alot. Part of it's because I think you are really straight with me. Like the last time I saw you and was teasing you, and you didn't think it was so funny and told me so. I was surprised and embarrassed, but I liked it that you let me know this.

Jill: Yeah, I was amazed that I reacted that way. You know, I didn't really have time to think about it. That week I had been hassled at work by some man teasing me and doing some things that I thought were kind of demeaning. When you teased me, I exploded kind of unjustly at you. But I felt comfortable doing that because I didn't think I always have to be pleasant when I'm with you.

Paul: Okay, that's the part about being straight I like. You don't just laugh it off.

Jill: I also felt pretty confident about just doing that with you because I knew that it wouldn't ruin our friendship.

Paul: Yeah, well, in that situation I was trying to say I like you, but wasn't being very straight about it. I want to be more straight with you but find myself doing other things. In the future, I'm going to try to be more direct with you.

Jill: I'd like that.

"So you see that in self-disclosing within an ongoing relationship you may find yourself sharing feelings that deal with the ways you and the other person react to one another. That self-disclosure may involve negative feelings, such as annoyance or sadness or positive ones such as joy and warmth. It is important in either case that you make it clear how you feel and why you feel that way by being very specific and by avoiding blame-laying. Remember, the feelings you are sharing belong to you, not to the other person. Remember your feedback rules!

At this point ask for questions and respond to them.

Model Self Disclosure

Then disclose your own feelings concerning group process. Be sure to include both positive and more negative feelings.

Role Play

Now break up into dyads and conduct role play practice. Individuals can either discuss their own relationships or may assign roles and practice for real world use. -May want to do latter due to the nature of the homework assignment.

Assign Homework

Contract with each individual to practice self-disclosure in an ongoing relationship.

Distribute "Sharing and Self-Disclosing" handout and homework sheets.

Sharing and Self-Disclosing

When you share things about yourself, or reactions and perceptions you have about the other person, you are being open. As two people find that there are an increasing number of things that can be shared in mutually helpful ways, a mutual trust develops.

There is always some risk involved when one tries to share a new kind of information in a particular relationship--the risk of whether that sharing will lead to increase or decrease of trust and openness.

When a person takes a chance of sharing with you, your response may tend to have a freeing effect or a binding effect.

WAYS OF OPENING COMMUNICATION

-Active listening

-Paraphrasing

-Perception check (acceptance of feelings)

-Seeking information to help understanding

-Reporting your own feelings

WAYS OF CLOSING COMMUNICATION

-give advice

-change the subject

-deny his/her feelings

-disapproval

-give orders

Self-Disclosure Homework

Relationship	What did I disclose	How did person react?	How did I feel about my efforts?	Should I have behaved differently?

Social Skills Training

Week Eight

I. Review homework experiences.

II. Extending Invitations & Planning Activities

"This session will be devoted to helping you to improve your ability to organize social activities and to extend invitations. Numerous studies of how to cope effectively with loneliness have shown that the most effective strategies are those that involve action, and initiative on the part of the lonely person. Unfortunately, the longer you feel lonely the less likely you are to actively reach out to make friends with people. In this session, we are going to get some practice on behaviors that can help you become more active. That is, to take the bull by the horns and invite people out instead of waiting to be invited by others. If you are doing the inviting you have much more control over the situation than you do if you are the guest."

There are three stages to the process of inviting someone out. They are:

1) Assessment of the situation

Choose the place to go and the activity to engage in.

Where to go -Think about:

a) How well do you know the other person?

ie. will govern the length of the activity

b) How well can you talk to the other person?

ie. will govern the type of activity; eg. movie- built in topic of conversation; museum, art gallery, zoo- similar; dinner date- very difficult due to lack of built-in topic.

2) Ask the other person

-fill him or her in on what you will be doing and where.

Be sure to act as if you feel confident even if you don't.

3) While engaging in the activity focus on the other person and not on your own behavior.

Use all of your active listening, paraphrasing, self-disclosure, and feedback skills.

III. Model an Invitation

"I am now going to pretend to invite someone somewhere."

Now model a successful invitation, following the guidelines outlined above. Think aloud during the decision making process.

Role Plays

> "This week your homework will be to plan an activity and invite someone to take part in it with you. Therefore, in the role play part of today's session it would be wise to practice that invitation."

Now follow the usual behavior rehearsal process.

V. Normalize Rejection

Prior to the conclusion of the session discuss the possibility of rejection. Try to normalize it - alternative explanations for being turned down. Have a general group discussion about reactions to invitation rejection.

VI. Finally, introduce the second homework assignment.

> "For next session I would like each of you to write down a topic upon which you have a strong personal opinion. You need not be an authority

on the topic. It is only important that you feel strongly about it. Next week we will be discussing these topics in pairs so you can get practice in letting people in on how you feel about various issues."

Ask for questions.

VII. Hand out "Initiating Activities" handout.

Homework sheet.

INITIATING ACTIVITIES

General Attitudes

I. Take Charge

If you invited one of the guys/women in your dorm to your home for the weekend, you would probably feel responsible to see that he/she enjoyed himself/herself. You would take charge of planning activities whch would be fun for both of you, and you would arrange the details of those activities. The same principle of taking charge applies to initiating activities here. When you invite someone to spend time with you, it is your job to try to make the activity a mutually enjoyable one. You are the one who should make things happen. (This applies to the first couple of experiences with the person. As you get to know the person better, you will probably begin to share the responsibility of deciding where to go and what to do.)

A. Assess the situation ahead of time.

1. You will be less anxious if you go to a place with which you are familiar.
2. If you are going to a place where you have never been before, you might take the time to visit that place prior to the activity.
3. In any case, envision the activity from beginning to end, and plan how you are going to manage each aspect of the activity.

For example, if you are going to a movie on a rainy night, where are you going to park the car?

B. Brief the other person.

1. Tell the other person as much about what you will be doing as possible - where you will be going, what means of transportation you will use to get there, whether you will be inside or outside, whether or not there will be other people with you. He/she needs to know these things in order to make his/her own plans.
2. If you will be meeting someone whom you know and whom he/she does not, tell him/her something about him/her - where he/she is from, what he/she is doing at the university, or what some of his/her interests are. The meeting will be more comfortable for the other person if he/she knows something about the third party.

II. Appear to be Confident.

Act as if you feel confident if you don't. Think of the time in your life when you were most confident (e.g., when you took your little brother to the baseball game), most in charge of the situation - and then act as you did then. Both you and the other person will feel better if you assume a posture of confidence.

III. Focus on the Other Person, Not on Yourself.

Try not to focus on yourself. Don't fuss about your own performance

- how well you are doing, the mistake that you just made, or what she/he thinks of you. Focus on the other person and what he/she thinks and feels.

A. When he/she is talking, listen to the other person. Don't just pretend to be listening, really listen. Paraphrase.

B. When he/she is talking, look at him/her. Don't let your eyes stray to see who has just entered the room.

C. Make her/him feel good about herself/himself. There is probably something worthwhile and/or interesting about everything the other person has to say. Find it, focus on it, and let her/him know that you value it.

D. Try to discover what in his/her life gives the person pride - where he/she feels accomplished and valuable. When you find it, ask him/her to tell you about it.

<u>What Not To Talk About</u>

I. Don't immediately hurl yourself into some profound or startling topic. Begin with a warm-up period of small talk - about classes, about the weather, etc.

II. Don't tell the other person about your troubles. The first experience with another person (and the second or third) is no time to talk about anything that is very sad, very heavy, or very personal. Save the facts of your private life until later.

III. Don't probe too deeply into his/her personal life. The answers to why he/she broke up with their last steady and to whether or not his/her brother really is in jail, is the other person's business. You do not have the right to poke into his/her personal life unless that person brings up the topic.

Planning an Activity

How to Decide Where to Go

When you are planning where to go and what to do with someone, you should consider two factors: how well you know the person, and your level of conversational skill with this particular person.

A. How well do you know the person.

If you don't know the person well, it will be easier on you if you start out with a short activity rather than with one which lasts a long time. (Another reason for starting out with a short activity is that the person may not want to commit himself/herself to spending a long time with a someone he/she doesn't know too well.) Think in terms of a hierarchy of first short, then longer, then long activities. For example:

1. Short activity	ice cream cone	1 hour
2. Longer activity	evening movie	5 hours
3. Long activity	trip to a park	all day

B. How well can you converse with this person.

Again, use the concept of a hierarchy, starting out with situations in which very little conversation is required, and working up to the time when you have to do alot of talking. You will need to consider two factors: 1) whether or not there will be built-in topics of conversation, and b) how much of the conversation you will be responsible for. These two factors are discussed in the examples below.

1. Movie. If you go with someone to a movie, during the show you wont' have to talk at all. And afterwards, over a cup of coffee, you can talk about the movie.
2. Spectator sports, art gallery/museum, zoo, dog show. What these places have in common is built-in topics of conversation. For example, if you take someone to a dog show, the conversation is readymade - you talk about the dogs. (Which is best looking, which the funniest, which looks most like his owner, etc.)
3. Playing card game. When you play cards or board games, conversation isn't required 100% of the time. If you can't think of anything to say, you can concentrate on the game. But if you happen to begin an interesting conversation, you can stop playing for a few minutes and talk.
4. Double dates. Double dates and dating in small groups is easier than single dating, because less of the responsibility

for carrying the conversation is yours. On a double date you are responsible for 25% of the conversation instead of the usual 50%.

5. Dinner date. A dinner date is a very difficult date to manage because there are no built-in topics of conversation. You must create the conversation from scratch.

EXTENDING AN INVITATION

Who did you decide to invite and why?

Where did you decide to go?

What contributed to your suggestion of that particular activity?

Did the person accept? If not, how did you feel about being turned down?

How successful do you think the activity was?

Social Skills Training

Week Nine

I. Homework Review

Discuss with the group members how their invitation assignments went.

II. Personal Opinion Expression

"Research in the areas of social skill deficits and loneliness indicates that the shy and the lonely may experience particular trouble in expressing their own ideas and opinions to others. In addition, the lonely sometimes report feeling boring or dull. It makes sense that learning to take chances and open up to others more would reduce these feelings. You probably all have special interests and opinions on a variety of topics. All you need to do is let the rest of us in on those ideas! Today we will practice doing just that. You will pair up and take turns filling one another in on your area of interest. Take this opportunity to practice all the other communication skills we have learned. You will need those skills in order to gain a

good understanding of each other's viewpoints on the issues you choose to discuss. At the end of each five minute interaction, I would like you to give one another constructive feedback about your behavior during the interaction."

III. Follow the usual Role Play procedure.

IV. Assessment

At the conclusion have all group members complete the UCLA Scale, the CES-D, the SMS, the SES, the Reaction to Social Situations and the FNE. Then videotape the women in dyadic interactions of ten (10) minutes duration. Distribute interaction diary forms and arrange to have them returned next week.

V. Follow-Up

Find out addresses of group members for follow-up contact. Also the address of someone who will always know their current address, eg. parents.

Remind them about money available at follow-up.

Appendix N

Cognitive Restructuring Procedures and Handouts

Cognitive Restructuring

COGNITIVE RESTRUCTURING

Things to read for background.

I. Beck, Rush, Emery & Shaw Cognitive Therapy of Depression

Chapters 1 to 6 inclusive.

Chapter 8 especially page 147; pages 157-159.

Chapter 9 especially pages 190-194.

II. Wilson & O'Leary Principles of Behavior Therapy

Chapter 9

III. Davis, Eshelman & McKay Relaxation and Stress Reduction Workbook

Rational Restructuring

Stress Inoculation

IV. Jeffrey Young "Loneliness, Depression & Cognitive Therapy"

Stress Innoculation Handout taken from Davis, M., Eshelman, F.R., & McKay, M. (1980). The relaxation and stress reduction workbook. Richmond, California: New Harbinger Publications.

WEEK ONE

* FROM WEEK ONE ON CHECK TO SEE IF PEOPLE ARE PRACTISING RELAXATION AT HOME.

I. Collect Their Interaction Diaries

II. Name Game

(See Week One Social Skills Training)

III. Establishing Group Groundrules

(See Week One Social Skills Training)

IV. Warm-Up Interactions

(See Week One Social Skills Training)

V. Rationale for the Cognitive Restructuring Treatment of Loneliness

Two elements are crucial in this rationale:

(1) The group members must comprehend how their own thoughts contribute to their emotional experience of various situations.

(2) And specifically, how those pessimistic, negative thoughts they generate in social situations contribute to their loneliness.

Present the rationale in the following terms:

"How people interpret events determines how they feel about things. For example, a woman who believes she is ugly and that men are bound to reject her, may feel sad and behave in such a way that she avoids situations where she might be called upon to interact closely with men. As another example, consider the case of a woman who feels she is dull and boring. If she expects that all those who interact with her will think she is a bore, she will feel hopeless and will likely give up trying to meet people.

The way a person thinks about or interprets events influences how she feels and behaves. For example, suppose you were home alone one night and heard a crash in another room. If you think: "There's a burglar in the house." How do you think you'd feel?"

Group response - likely to be anxious, scared.

Therapist: "And how would you behave?"

Group: [Call the police, hide.]

Therapist: So in response to a thought that a burglar made the noise, you would probably feel anxious and behave in such a way as to protect yourself. Now, let's say you heard the same noise, and instead thought: "The windows have been left open and the wind has blown something over." How would you feel?

Group: [Well probably not afraid. Maybe concern that something may have been broken.]

Therapist: And, would your behaviour be different following this thought?

Group: Sure, I would probably go and investigate the noise. I wouldn't phone the police.

Therapist: Okay, what this example shows is that there are usually a number of ways in which you can interpret a situation. Also, the way you interpret a situation affects your feelings and behavior.

Note: These examples are meant to provide the group members with the concepts necessary for beginning to examine their own thoughts and feelings and the relationship of those thoughts and feelings to their behavior.

Another way of illustrating that relationship is to make use of Beck's "induced imagery" technique. Ask the group members to imagine an unpleasant social situation. Ask how they would feel in that situation. Then inquire about the content of their thoughts. Next ask them to imagine a pleasant scene and ask them to describe their feelings. The group members will likely be able to see that by changing the content of

their thoughts, they are able to change how they feel. This is an important exercise. Therefore, be sure to devote enough group time to it to insure that all group members are clearly beginning to comprehend. With those who are not catching on you can do the exercise on an individual basis (in front of the rest of the group).

"As your handout discusses, we all engage in self-talk. By self-talk I mean the internal thoughts with which you describe and interpret the world. When that self-talk is accurate you function well. But, when the self-talk is illogical and untrue, you experience stress. For example, a lonely person may blame her loneliness on her own personality. "I'm totally undesireable and not pretty and smart enough so that no one would want to be my friend." In response to that kind of thinking she is likely to feel discouraged and sad. Also, she may wind up avoiding other people."

"In the next several weeks we are going to work together to identify the negative things you are telling yourselves in social situations and to learn how to substitute more optimistic and accurate thoughts. By that process, in conjunction with placing yourselves in more social situations you will begin to overcome your loneliness."

Cognitive Restructuring

Homework

I. "For this ensuing week I would like you all to read the handout I will now distribute. Think about it's content and what I talked about today. If you think of any questions or are confused at all, let me know next week. It is important that you all understand the role of your own thoughts in determining our feelings and behaviour in various social situations."

II. "In addition, for next week I would like you to record as many of your thoughts as you can recall immediately after a social encounter. So what I'd like you to do is enter into at least one social encounter this week, eg. you could go out for coffee with an acquaintance or friend. Immediately after the situation has ended, sit down by yourself and record as many of the thoughts you had during the social interaction as you are able to recall. In order to do so, replay the whole interaction in your mind and focus on what you were thinking to yourself during that time. Record exactly what you were thinking. Bring those records of your thoughts in with you to next week's session. This is an essential exercise so that we can begin to understand how your own attitude towards yourself influences your social experiences."

Relaxation Training

(See Week One Social Skills Training)

Conclusion

Hand out Rational Restructuring, Relaxation handouts, and Cognition Charts. Remind the group about their homework assignment.

WARM-UP DISCUSSION TOPICS

1) I'm in . . . . . faculty, taking _____ course and am in . . . . . year.
2) I'm from . . . . .
3) My favorite course is . . . . .
4) The main reason I'm taking the training is . . . . .
5) One major thing I would like to learn from this course is . . . . .
6) I live . . . . .

Guidelines for Group Session

Things to do:

1) Listen actively to everyone.

2) Try to be aware of your own feelings and thoughts.

3) Be as open and honest as you can but try to be sensitive to the needs of others as well.

4) Try to focus on "the here and now" and not on the past.

5) What is said within the group sessions by anyone is confidential and must not be repeated outside the group, unless it refers only to yourself. This rule applies to everything that is said.

Statement of Ethics

1) It is expected that each group member will respect and try to help the other group members. In the group this means watching and listening when someone else is speaking. Outside the group this means maintaining confidentiality.

2) It is expected that each group member will try as hard as possible throughout the program.
In the group this means attending all sesions on time and staying to the end of the meeting. It also means completing all questionnaires and other assignments.

Relaxation Training Orientation

Before beginning to learn how to make yourself relax here are some important pieces of information for you to know.

1) You are about to learn a new skill, like driving a car or learning to play a musical instrument. People learn to be tense and anxious. Therefore, we can learn to relax ourselves. All that is necessary is practice.

2) As you begin to learn to relax you may have some unusual feelings. e.g., tinglings in your fingers or a floating sensation. These are signs that your muscles are loosening up--good signs!

3) It is important to let yourself go, to simply "Go with" the experience.

4) You always remain in control. You are relaxng yourself through these procedures. So, instead of losing control, you are gaining it as you learn to control your tension.

5) You are actually attaining greater control over yourself by letting go! It is rather like learning to do the back float. In order to be able to float well, you must let go and allow the natural buoyancy of your body interact with the specific gravity of the water.

6) It is important to remember that this is a practiced skill. Initially many people feel little difference after relaxation exercises. It takes practice.

7) Remember, you are learning to relax so that when you find yourself in a social situation (or exam situation, etc.) you can relax away the anxiety and cope better.

Progressive Relaxation

You cannot have the feeling of warm well-being in your body and at the same time experience psychological stress. Progressive relaxation of your muscles reduces pulse rate and blood pressure as well as decreasing perspiration and respiration rates. Deep muscle relaxation, when successfully mastered, can be used as an anti-anxiety pill.

Edmond Jacobson, a Chicago physician, published the book Progressive Relaxation in 1929. In this book he described his deep muscle relaxation technique, which he asserted required no imagination, willpower or suggestion. His technique is based on the premise that the body responds to anxiety provoking thoughts and events with muscle tension. This physiological tension, in turn, increases the subjective experience of anxiety. Deep muscle relaxation reduces physiological tension and is incompatible with anxiety. The habit of responding with one blocks the habit of responding with the other.

Symptom Effectiveness

Excellent results have been found in the treatment of muscular tension, anxiety, insomnia, depression, fatigue, irritable bow, muscle spasms, neck and back pain, high blood pressure, mild phobias and stuttering.

Instructions

Most people do not realize which of their muscles are chronically tense. Progressive relaxation provides a way of identifying particular muscles and muscle groups and distinguishing between sensations of tension and deep relaxation. Four major muscle groups will be discovered.

1. Hands, forearms and biceps.

2. Head, face, throat and shoulders, including concentration on forehead, cheeks, nose, eyes, jaws, lips, tongue and neck. Considerable attention is devoted to your head, because from the emotional point of view, the most important muscles in your body are situated in and around this region.

3. Chest, stomach and lower back.

4. Thighs, buttocks, calves and feet.

Progressive relaxation can be practiced lying down or in a chair with your head supported. Each muscle or muscle grouping is tensed from five to seven seconds and then relaxed for twenty to thirty seconds. This procedure is repeated at least once. If an area remains tense, you can practice up to five times. You may also find it useful to use the following relaxing expressions when untensing:

Let go of the tension.

Throw away the tension--I am feeling calm and rested.

Relax and smooth out the muscles.

Let the tension dissolve away.

Once the procedure is familiar enough to be remembered, keep your eyes closed and focus attention on just one muscle group at a time. The instructions for progressive relaxation are divided into two sections. The first part, which you may wish to tape and replay when practicing, will familiarize you with the muscles in your body which are most commonly tense. The second section shortens the procedure by simultaneously tensing and relaxing many muscles at one time so that deep muscle relaxation can be achieved in a very brief period.

Basic Procedure

Get in a comfortable position and relax. Now clench your right fist, tighter and tighter, studying the tension as you do so. Keep it clenched and notice the tension in your fist, hand and forearm. Now relax. Feel the looseness in your right hand, and notice the contrast with the tension. Repeat this procedure with your right fist again, always noticing as you relax that this is the opposite of tension--relax and feel the difference. Repeat the entire procedure with your left fist, then both fists at once.

Now bend your elbows and tense your biceps. Tense them as hard as you can and observe the feeling of tautness. Relax, straighten out your arms. Let the relaxation develop and feel that difference. Repeat this, and all succeeding procedures at least once.

Turning attention to your head, wrinkle your forehead as tight as you can. Now relax and smooth it out. Let yourself imagine your entire forehead and scalp becoming smooth and at rest. Now frown and notice the strain spreading throughout your forehead. Let go. Allow your brow to become smooth again. Close your eyes now, squint them tighter. Look for the tension. Relax your eyes. Let them remain closed gently and comfortably. Now clench your jaw, bite hard, notice the tension throughout your jaw. Relax your jaw. When the jaw is relaxed, your lips will be slightly parted. Let yourself really appreciate the contrast between tension and relaxation. Now press your tongue against the roof of your mouth. Feel the ache in the back of your mouth. Relax. Press your lips now, purse them into an "O". Relax your lips. Notice that your forehead, scalp, eyes, jaw, tongue and lips are all relaxed.

Give your entire body a chance to relax. Feel the comfort and the heaviness. Now breathe in and fill your lungs completely. Hold your breath. Notice the tension. Now exhale, let your chest become loose, let the air hiss out. Continue relaxing, letting your breath come freely

and gently. Repeat this several times, noticing the tension draining from your body as you exhale. Next, tighten your stomach and hold. Note the tension, then relax. Now place your hand on your stomach. Breathe deeply into your stomach, pushing your hand up. Hold, and relax. Feel the contrast of relaxation as the air rushes out. Now arch your back, without straining. Keep the rest of your body as relaxed as possible. Focus on the tension in your lower back. Now relax, deeper and deeper.

Tighten your buttocks and thighs. Flex your thighs by pressing down your heels as hard as you can. Relax and feel the difference. Now curl your toes downward, making your calves tense. Study the tension. Relax, now bend your toes toward your face, creating tension in your shins. Relax again.

Feel the heaviness throughout your lower body as the relaxation deepens. Relax your feet, ankles, calves, shins, knees, thighs and buttocks. Now let the relaxation spread to your stomach, lower back and chest. Let go more and more. Experience the relaxation deepening in your shoulders, arms and hands. Deeper and deeper. Notice the feeling of looseness and relaxation in your neck and all your facial muscles.

Shorthand Procedure

The following is a procedure for achieving deep muscle relaxation quickly. Whole muscle groups are simultaneously tensed and then relaxed. As before, repeat each procedure at least once, tensing each muscle group from five to seven seconds and then relaxing from 20 to 30 seconds. Remember to notice the contrast between the sensations of tension and relaxation.

1. Curl both fists, tightening biceps and forearms (Charles Atlas pose). Relax.

2. Wrinkle up forehead. At the same time, press your head as far back as possible, roll it clockwise in a complete circle, reverse. Now wrinkle up the muscles of your face like a walnut: frowning, eyes squinted, lips pursed, tongue pressing the roof of the mouth, and shoulders hunched. Relax.

3. Arch back as you take a deep breath into the chest. Hold. Relax. Take a deep breath, pressing out the stomach. Hold. Relax.

4. Pull feet and toes back toward face, tightening shins. Hold. Relax. Curl toes, simultaneously tightening calves, thighs and buttocks. Relax.

Almost every minute of your conscious life you are engaging in self-talk, your internal thought language. These are the sentences with which you describe and interpret the world. If the self-talk is accurate and in touch with reality, you function well. If it is irrational and untrue, then you experience stress and emotional disturbance. This sentence is an example of irrational self-talk: "I can't bear to be alone." No physically healthy person has ever died merely from being alone. Being alone may be uncomfortable, undesireable and frustrating, but you can live with it, and live through it.

More irrational self-talk: "I should never be cruel to my wife. If I am, I know I'm a rotten person." The words "should never' allow no possibility of flaw or failure. When the inevitable fight occurs, you indict yourself as entirely rotten--all on the basis of a single incident.

Irrational ideas may be based on outright misperceptions ("This person probably won't like me." "When the airplane's wing shakes, I know it's going to fall off.") or perfectionistic shoulds, oughts and musts ('I ought to keep quiet rather than upset anyone.'). Inaccurate self-talk such as "I need love" is emotionally dangerous compared to the more realistic "I want love very much, but I don't absolutely need it, and can survive and feel reasonably happy without it." How terrible to be rejected" is fear-producing in comparison to "I find it unpleasant and momentarily awkward, and feel regretful when I am rejected." Imperatives such as "I've got to be more helpful around the house" can be converted to more rational statements such as "There would probably be more peace and compatibility if I did a greater share of the work."

Albert Ellis developed a system to attack irrational ideas or beliefs, and replace them with realistic statements about the world. He called his system Rational Emotive Therapy and introduced it first in A Guide to Rational Living with co-author Harper in 1961. Ellis' basic thesis is that emotions have nothing to do with actual events. In between the event and the emotion is realistic or unrealistic self-talk. It is the self-talk that produces the emotions. Our own thoughts, directed and controlled by you, are what create anxiety, anger and depression. The following chart shows how it works.

Example

A. Fact and events
   A mechanic replaces a fuel pump he honestly believed was malfunctioning, but the car's performance doesn't improve. The customer is very upset and demands that he put the old fuel pump back.

B. Mechanic's self-talk

   "He's just a grouch - nothing would please him."
   "Why the hell do I get all the tough jobs?"
   "I ought to have figured this out by now."
   "I'm not much of a mechanic."

c. Emotions

Anger and resentment
Depression

The mechanic may later say to himself, "That guy really made me mad." But it is not the customer or anything that the customer has done which produces the anger -- it is the mechanic's own self talk, his interpretation of reality. This irrational self-talk can be changed, and the stressful emotions changed with it.

Symptom Effectiveness

Rimm and Litvak (1969) found that negative self-talk produced substantial physiological arousal. In other words, your body tenses and becomes stressed when you use such irrational syllogisms as:

People seem to ignore me at parties.
It's obvious that I'm either boring or unattractive to them.
How terrible!

The emotional results of irrational self-talk are anxiety, depression, rage, guilt, and a sense of worthlesness. Rational Emotive Therapy has been shown effective in decreasing the frequency and intensity of these emotions.

Refuting Irrational Ideas

There are five steps (A through E) to disputing and eliminating irrational ideas. Start by selecting a situation that consistently generates stressful emotions in you.

A. Write down the facts of the events as they occured at the time you were upset. Be certain to include only the objective facts, not conjecture, subjective impressions or value judgements.

B. Write down your self-talk about the event. State all your subjective value judgements, assumptions, beliefs, predictions and worries. Note which self statements have been previously described as irrational ideas.

C. Focus on your emotional response. Make a clear one or two word label such as angry, depressed, felt worthless, afraid, etc.

D. Dispute and change the irrational self-talk identified as step B. Here's how it is done, according to Ellis:

1. Select the irrational idea that you wish to dispute. As an illustration, we will use the irrational idea, "It's not fair that I have to suffer with such a problem.

2. Is there any rational support for this idea? Since everything is as it should be, given long chains of cause and effect, the answer is no. The problem must be endured and dealt with because it happened. It happened because all the conditions existed necesary to make it happen.

3. What evidence exists for the falseness of this idea?

   a. There are no laws of the universe that say I shouldn't have pain or problems. I can experience any problem for which the necessary condition exists.

   b. Life is not fair. Life is just a sequence of events, some of which bring pleasure and some of which are inconvenient and painful.

   c. If problems occur, it is up to me to solve them.

   d. Trying to keep a problem from developing is adaptive, but resenting and not facing it once it exists is a dangerous strategy.

   e. No one is special. Some go through life with relatively less pain than I do. This is due to one of two things: Luck of the draw, or decisions I have made that contributed to the necessary conditions for my problem.

   f. Just because I have a problem doesn't mean I have to suffer. I can take pride in the challenge of a creative solution. This may be an opportunity to increase my self esteem.

4. Does any evidence exist of the truth of this idea?

   No, my suffering is due to my self-talk, how I have interpreted this event. I have convinced myself that I should be unhappy.

5. What is the worst thing that could happen to me if what I want to happen doesn't, or what I don't want to happen does?

   a. I could be deprived of various pleasures while I deal with the problem.

   b. I might feel inconvenienced.

   c. I might never solve the problem, and experience myself as ineffective in this particular area.

   d. I might have to accept the consequences of failure.

e. Others might not approve of how I am behaving. I might be rejected as incompetent.

f. I might feel more stress, tension and a sense of being up against it.

6. What good things might occur if what you want to happen doesn't, or what you don't want to happen does?

a. I might learn to tolerate frustration better.

b. I might improve my coping skills.

c. I might become more responsible.

E. Substitute alternative self-talk, now that you have clearly examined the irrational idea and compared it with rational thinking.

1. There's nothing special about me. I can accept painful situations when they emerge.

2. Facing the problem is more adaptive than resenting it or running away from it.

3. I feel what I think. If I don't think negative thoughts, I won't feel stressful emotions. At worst I will experience inconvenience, regret and annoyance -- not anxiety, depression and rage.

Homework

To succeed in your war against irrational ideas, you need a daily commitment to homework. Use the homework sheet below as a model. Fill out at least once a day.

Here is an example of a homework sheet completed by a woman who had a date with a friend cancelled:

A. Activating Event:

A friend cancelled a date with me.

B. Rational Ideas:

I know he's under a lot of time pressure right now ... I'll do something by myself.

Irrational Ideas:

I'll feel terriby along tonight...The emptiness is setting in... He doesn't really care for me... No one reaaly wants to spend time with me... I'm falling apart.

C. Consequences of the irrational ideas:

I was depressed... I was moderately anxious.

D. Disputing and challenging the irrational ideas:

1. Select the irrational idea:

I'll feel terribly alone tonight ... I'm falling apart.

2. Is there any rational support for this idea?

No.

3. What evidence exists for the falseness of the idea?

Being alone is not as pleasurable as having a date, but I can find pleasure in an alternate activity.

I usually enjoy being alone, and I will tonight as soon as I face the disappointment.

I'm mislabelling frustration and disappointment as "falling apart".

4. Does any evidence exist for the truth of the idea?

No, only that I've talked myself into feeling depressed.

5. What is the worst thing that could happen to me?

I could continue to feel disappointed and not find anything really pleasurable to do tonight.

6. What good things might occur?

I might feel more self reliant, and realize that I do have inner resources.

E. Alternative thoughts

I'm OK. I'll get out my detective novel, I'll treat myself to a good Chinese dinner. I'm good at being alone.

Alternative emotions:

I feel quiet, a little disappointed, but I'm anticipating a good meal and a good book.

Use this format with all the stressful events you experience. Spend at least 20 minutes a day on the homework. When possible, do the homework right after the event has occurred. Use a separate sheet for each event, and save them as a record of your growth.

NAME: _____ WEEK: Cognition Chart

Social Situation	My thoughts

WEEK TWO

I. Name Game

II. Homework Review

Go over the cognitions collected by the group members during their social encounters. Be sure to strongly reinforce those who successfully carried out the homework and stress the importance of doing all homework assignments. Cognitive therapy is a collaborative process and requires the input of the group members as well as the therapist. The homework activities must be carried out so that the women can gain practice at identifying their irrational self-talk, and at refuting those thoughts and substituting them with more productive, rational self-statements.

Use this time period to once more go over the rationale for the role of cognitions in the maintenance of loneliness. Go over the social situations of various group members and get them to describe the experience, their feelings during it and their concurrent thoughts. This process is known as cognitive rehearsal.

Note

This week's session will focus exclusively on learning to monitor cognitions. Cognitive rehearsal is one way of accomplishing this. Another way is to engage in role plays of particularly troublesome

situations. Have each group member come up with a situation from the very recent past in which they felt lonely or sad, etc. Choose one group member and have her describe the scenario of that situation in detail. Then role play it with her stopping frequently to make inquiries with regard to her thoughts and feelings. Conduct this process with each of the group members. Then have the rest conduct the role play process with another group member.

At the conclusion of the role plays have the individuals give one another feedback concerning their behaviour. A common theme in lonely cognitions is the notion of rejection: "If I behave less than adequately the other person will reject me totally." It is important that you assist the group members in addressing the irrationality of that assumption.

The theme that you should convey from this process and communicate explicitly to the group is that:

> "The way a person views her relationships is perhaps the most important determinant of how satisfying her friendships are and therefore of how lonely she feels. How we feel about a social failure is in large part determined by how we interpret it. If I blame the other person for the social failure experience (eg. "Harry is just a selfish creep!"), I will feel annoyed and resentful. If I blame myself for it (eg. "I am hopeless, boring

and dull."), I will feel sad and helpless. Alternatively, if I look at the situation as a challenge and believe I can do something to change it for the better, I may not feel a negative emotion at all. In addition, I am more likely to do something constructive to improve my social relationships if I think about the situation in an optimistic way. So the way I think about my loneliness will influence my ability to change it."

"So the first step in our work together will be to learn to pinpoint our negative assumptions about ourselves in social relationships. Then we will learn how to substitute more realistic, optimistic, alternative thoughts. Finally, we will practice substituting those thoughts for negative ones, while you are actually in social situations.

Discussion of the Role of Negative Thoughts in Loneliness

Lead the group in a discussion of this concept and of how they can interpret their own lonely experiences in these terms. You will probably need to begin by giving personal examples of how your own negative expectations with regard to the outcome of social situations has detrimentally affected your behaviour. The purpose of this free discussion is to help the group members to become familiar with the process of focusing on cognitions. One way of bringing the exercise closer to home is to ask each how she felt and what she was thinking prior to the first treatment session. You can use this exercise to get at how pessimistic expectations

like "Everyone will be more likeable than me. This won't be of any help at all. I don't want to go for therapy. I must really be bad off if I have to." -can influence the individual's behavior in group. Compare the impact of such negative thoughts with the anticipated behavioral consequences of more positive thoughts.

Note

The fear of rejection, "I'm hopeless" theme is likely to be a common one for the group members.

Relaxation Training

See Week Two Social Skills Training.

HOMEWORK

Recording Dysfunctional Thoughts

In order to begin to examine and to modify cognitions, the group members will be instructed to write down their thoughts and feelings and behaviors in adjacent columns on the cognitions charts provided them.

As the women record the situations and their thoughts, feelings and behaviors, they will begin to gain some ability to look objectively at the role of their negative cognitions and unpleasant emotions. The recording of dysfunctional thoughts is the first step in the process of learning to differentiate between a realistic account of a series of events and a distorted account.

It will be useful to present the group members with an example record. Use the following record as that example and go over it in the group session.

EVENT	FEELINGS	COGNITIONS	BEHAVIOR
While at a party, Jim asked me "How are you feeling? shortly after I had a fight with a girl we both knew.	Anxious.	Jim thinks I am a basket case. I must be acting upset still or else he wouldn't ask. He probably thinks I was in the wrong.	I went to the washroom and avoided Jim for the rest of the evening.

EVENT	FEELINGS	COGNITIONS	BEHAVIOR

WEEK THREE

Focus: Young's Low Self Concept Cluster

Techniques: Review of Cognition Charts
Cognitive Rehearsal
Role Plays
Role Reversal
Reattribution

Presentation of Weekly Agenda

The essence of cognitive therapy is the collaborative relationship between the therapist and the client. Therefore, when each new therapeutic focus begins, the group leader must clearly discuss that issue with the group. In individual cognitive therapy, therapist and client decide upon the issues jointly. Due to the group format of the current project we will make use of previous research to select the therapy goals.

The first group of dysfunctional thoughts to be tackled will be those contained within Young's Low Self-concept Cluster. Present the following rationale to the group:

"Lonely people have certain automatic thoughts that keep them

from trying to do things to alleviate loneliness. In the past two sessions, we have been discussing the role of your own negative, pessimistic expectations in contributing to your loneliness. We have seen how thinking "I'm dull" might make an individual feel leary of attempting to go to a social in an effort to meet people. We have begun the process of monitoring and pinpointing these kinds of negative thoughts by keeping a record of our social experiences throughout the day. The next step is for us to work on learning to get rid of those unproductive thoughts and how to substitute optimistic, rational alternatives. What I am going to ask each of you to do for the next seven weeks is to suspend your convictions that your negative thoughts about your social chances are true and to instead treat each of those thoughts as a hypothesis to be tested. We are going to gather evidence for and against the truth of those thoughts. When you have identified a common negative thought I want you to stop and ask yourself the following questions: "What evidence do I have that this interpretation is true?", "Is that evidence enough to support my conclusion?", "Are there any alternative interpretations of the events?". I am not saying that your own perceptions are totally false. All I am saying is that they may be based on faulty assumptions. So, for example, if I assume that people generally are not interested in making friends with someone who isn't witty, smart and attractive, I may conclude that when I

behave in a less than witty fashion the other person will reject me as a potential friend.

Today we are going to work on identifying any negative thoughts you may experience about yourself. Many lonely people are blocked from working on creating new friendships because they look upon themselves as undesirable. If you feel that negatively about yourself, eg. if you think of yourself as stupid or unattractive or dull, etc., you may not think anyone will be interested in getting to know you better. I need to like myself in order to believe that others will like me.

Let's go over your cognitive charts from last week to see if we can pick out any negative attitudes towards yourselves."

Note:

Have the group members review their dysfunctional thought records. Circulate and examine those records. Choose an example of those low-self-concept thoughts from someone's record and discuss it with the individual. Involve the whole group once you begin to work on refuting the negative thoughts. Remember that the Beck process of refutation is based on the Socratic method so that you are to ask the individual questions seeking evidence in support of and in opposition to those automatic thoughts.

*Will practice this process with me as a guinea pig.

Basically you are attempting to get at the following automatic thoughts and maladaptive assumptions:

Automatic Thoughts

I'm undesireable.

I'm ugly.

I'm dull.

I can't change the way I am.

Maladaptive Assumptions

(1) People are intolerant of other people's faults.

(2) It is essential to be attractive, intelligent, lively, witty, etc. to have any friends.

Carry out the refutation/generation of alternative assumptions process with other group members using the events and cognitions recorded on the cognition chart.

Draw out the crucial points to be learned from these practice interactions. They are:

(1) We can keep ourselves from doing things to alleviate our loneliness just by telling ourselves negative things about ourselves as people.

(2) We can choose to think differently and can learn to generate alternative interpretations of people's behavior toward us. We do so by seeking specific evidence for and against those thoughts.

Role Reversal

Another way of teaching people how to refute their own negative automatic thoughts is to reverse the therapist-client roles. You present a hypothetical social situation which you have experienced as distressing and describe how you felt and what you were thinking about yourself during and after the interaction. Have one of the group members assist you in identifying and generating rational alternatives to your negative automatic thoughts.

Here is a way to introduce this technique:

"I'd like to try to help you to become more aware of your self-criticisms by taking on the role of the self-critical person and having you be the person helping me to dispute the reality of my self-criticism. Does anyone in the group know how to play tennis or any racquet sport? [If no one does have them pretend they can play.] Okay, I am totally uncoordinated at those sports. We are going to role play that you are about to give me a lesson.

Therapist: I'm really nervous about this. I'm absolutely hopeless at sports.

Group Member: bleah, bleah, bleah.

Therapist: I'm sure I won't be able to. I have never been able to learn since grade school. I'll make you embarassed to be seen with me.

Note: Continue to be negative. Have the group members discuss how they felt observing the interaction. Can they come up with some ways to refute the negative assumptions?

Role Plays

Have the group members pair up. Choose either a recent difficult social experience or a potentially difficult one that has yet to occur and have the dyads role play those situations. At the conclusion of the role play, have the individuals discuss how they felt and what they were thinking prior to, during, and after the role play of the social event. Have the pairs work on generating alternative, rational interpretations.

Note We can practice this together during training.

HOMEWORK

(1) Cognition Charts

Have the group members complete an additional column: -generating other possible interpretations of the social experiences.

Use the complete cognition chart from Week Two and add the following column.

Other Interpretations

He really cares about me.

He noticed that the argument was difficult for me and is concerned.

(2) Contract with each group member to enter a social situation in the next week. The goal is to make sure that each individual has an opportunity to experience a situation that may trigger negative self-statements and present an opportunity to generate rational alternatives.

Hand-Out

Focus group on the second part of the rational restructuring handout.

EVENT	FEELINGS	COGNITIONS	BEHAVIOR	ALTERNATIVE INTERPRETATIONS

WEEK FOUR

I. Review the cognition charts and behavioral assignment experiences of the group members. Is anyone (hopefully not everyone) having difficulty grasping the role of our own self-statements in influencing our feelings and behaviors? Enlist the entire group in this discussion. Have group members who are beginning to catch on examples from their cognition charts?

II. The focus of this week's session will continue to be the low self-concept cluster. Make use of role plays (both in group member pairs and in group leader-group member pairs) to continue the process of learning to refute negative thoughts and assumptions. Be sure to focus on social events that have happened or are being anticipated with concern by group members. Circulate while group members are practicing and provide feedback. Engage in role plays and role reversals where necessary.

III. Have the group members make a list of their own positive features. Have the group as a whole generate a list of each member's personal strengths. This strength bombardment procedure is designed to give the individuals ammunition to use against their own self-derogation. Do they require their friends to be perfect? Are others likely to expect perfection? If they can acknowledge that they possess good qualities and that no one expects perfection, they are likely to begin to feel more optimistic about making friendships.

IV. Reattribution Training

The goal of this technique is to increase the women's ability to think of situational variables (not exclusively personal traits) which contribute to the outcomes of various social encounters. Lonely people (especially those who have been lonely for awhile) tend to begin to blame themselves excessively for their social isolation. Through reattribution training the women in the group will gain practice in focusing on the variety of non-personal factors that contribute to every social interaction.

In order to begin this procedure, use the example described below. After discussing it with the group, have people form dyads and work on generating lists of non-personal factors that may have contributed to social experiences selected from the cognition charts of the members of each dyad.

"Lonely people often get very discouraged about themselves and start to blame themselves for all negative social interactions. Today we are going to examine how realistic it is for a person to accept so much responsibility. In any situation a myriad of factors play contributing roles. By learning to identify those factors in any adverse experience you can life a huge burden of blame from your own shoulders.

Let's begin with an example.

Let's imagine that you are a bank manager and have made an error in judgement that resulted in loss of money to the bank. You feel that you are totally ineffective at your job and have made a hopeless mess of things. Before accepting blame as a clutzy human being you should first see if other factors contributed to the situation. When you ask yourself if you based the loan decision (you approved a loan that fell through) on the usual factors (such as good collateral, good credit rating) you have to agree that yes you did check those things out. You made your decision on sound banking principles. You aren't a hopeless incompetent. You still have a problem but you needn't run yourself down as a hopeless case. What you need to do is take whatever steps you can to improve on the situation."

This reattribution process involves:

(1) reviewing the facts of the incident.

(2) Perhaps examining how much blame you assign to yourself versus other people. Are you too hard on yourself?

(3) Asking yourself if you are 100% responsible for any unpleasant occurence.

Now have the group members pair up and practice reattribution training with one another. Have them work on real-life problem situations. Have them consider how likely it is that others are constantly judging their behavior during interactions and also what their own

response would be to someone who behaves awkwardly. Would they write that person off as a friend?

HOMEWORK (1) Continue to keep the cognition charts. Have them focus on those charts to see if they can identify themes of negative thoughts.

(2) Contract with each individual to attempt a social interaction (either making a new acquaintance or attempting to make more of a friend out of a current acquaintance). They should try to use the refutation and re-attribution processes in anticipating and carrying out the behavioral assignment.

Cognitive Restructuring

WEEKS FIVE & SIX

Focus: Young's Social Anxiety Cluster as well as a continued focus on the Low Self-Concept Cluster. Rationale to the Group:

"The fear of embarrassing oneself is something that frequently keeps us from attempting to make friends. The thoughts associated with this fear include the following:

(1) I don't know how to act in this situation.

(2) I always feel uncomfortable with new people.

(3) I just know I'll do something awkward and make a fool of myself.

(4) I often feel as though I don't fit in, that I'm not really a part of a conversation. I'm just going through the motions.

Those kind of thoughts seem to come from some pretty unpleasant assumptions about the world. Perhaps you have a tendency to assume that other people judge your behaviors and that if you make a mistake they will ridicule you or reject you as a potential friend. It is easy to see how belief in those kinds of assumptions might lead a person

> to feel terrible when she commits a social faux pas, or even when she anticipates the possibility of doing so."

Now give a personal example along the following lines.

> "If I am convinced that people are likely to be watching me and passing judgement on me, going to a dance (as a person who dances rather poorly) would be torture. Indeed, I am likely to avoid it.
>
> How can I check out the truth of my assumptions? By asking myself for the evidence I have to support them. Have I experienced ridicule or rejection when I have attempted difficult social interactions? Am I likely to think less of someone else for similar behavior? Does anyone I know approach the situation in a different way, ie. a lousy dancer who loves to dance? What do I think of that person?

Have the group members go over their cognition charts as well as their memories of recent events and choose a situation in which they experienced discomfort at having performed less than adequately. Have them role play those situations in pairs, discussing their automatic

thoughts subsequently. Have them check out with their role play partner how they were perceived.

NOTE

It is clear that the low self-concept cluster overlaps considerably with the social anxiety cluster. If I believe I am dull and unattractive and that therefore people will not be interested in me, I am likely to feel very anxious when I am in social situations. I may behave awkwardly as a consequence and will feel awful when I do behave less than skillfully. If I believe people will reject me if I act uncomfortable, I will be very fearful of situations in which I am at risk of acting awkwardly. This is the model you are to present to the group.

In the refutation process you are encouraging them to question the evidence that others are judging them, that others expect perfect behavior of those who are friends, that if a situation doesn't turn out perfectly it is all their fault. They are to be encouraged to gather evidence for and against their maladaptive assumptions and to seek alternative causal factors (reattribution).

Make use of Week Four homework assignment experiences as possible role play material. Have the dyads cognitive rehearse the experience, going over the thoughts and feelings of the individual as she planned and carried out the behavior.

Circulate among the dyads and help the group members in their refutation processes.

At end of Week Five practice relaxation.

Cognitive Restructuring

WEEK SIX

Same process but add videotape procedures.

Have the group members form dyads and rehearse a feared social situation (take turns so that each individual has her own fear role played). Videotape those role plays and play them back to the group. This is useful because it gives the group members an objective perception of how they really do come across. They will likely realize that they aren't as awful as they anticipate.

The feedback of the other group members should also be helpful in refuting irrational expectations.

HOMEWORK

(1) Cognition Charts (look for low self-concept, social anxiety themes).

(2) Have each woman contract to share a personal concern or feeling with someone with whom she already has a relationship -a same sex person.

The goal of this homework is to provide food for thought for Week Seven and Eight when you will be focusing on the Constriction Cluster.

WEEK SEVEN

Homework Review

The Week Six homework assignment experience was designed to encourage the group members to begin the self-disclosure process. The experiences of the group members as they attempted to carry out the assignment should be used as discussion material as you introduce the self-disclosure/constriction cluster.

As was noted earlier, lonely people often report that fear of rejection keeps them from seeking out relationships. Through the work of previous weeks focusing on the low self-concept and social anxiety clusters, the basis for people's fear of rejection should be weakening. However, the group members may still be leary of increasing the intimacy of their friendships due to a concern that they have no right to share their personal problems with other people. They may think that other people would look upon that sharing as a burden. Spend some time discussing this issue with the whole group. Do the group members recognize these kinds of thoughts in themselves? How do they feel when others talk to them about problems? Do they feel burdened in these situations?

Role Plays

Have the group members practice sharing personal concerns and feelings with one another in dyads. Have them think about how they respond to the other person's self-disclosure. Almost inevitably, they

will indicate that they feel understanding and caring for their role-play partner. Another important lesson to be learned from the role-plays is the their own problems are not so terribly unique, that other people share similar kinds of concerns and are able and willing to listen and try to understand.

Repeat this role play process in at least three (3) different dyads so that the group members will have the opportunity to desensitive themselves to the self-disclosure process.

In the final role play have the women cognitively rehearse a self-disclosure experience that they will then actually conduct as Week Seven's homework assignment. They should choose an individual with whom they already have a casual relationship -a woman (not someone they might be interested in sexually). Have each person sit and think through the process of selecting the individual to self-disclose to deciding how to go about choosing when to talk to the person and what personal issue to bring up with her.

Homework

(1) Carry out the self-disclosure exercise.

(2) Record on the cognition chart the thoughts and feelings experienced before, during and after the assignment. Carry out the irrational thought refutation process when planning the interaction and when evaluating the outcome of the experience.

* Home practice of progressive relaxation will be useful to the group members.

Cognitive Restructuring

WEEK EIGHT

Review Self-Disclosure Homework Experiences

Have the group members discuss how their homework assignments went. Did they detect any negative self-statements when they anticipated the self-disclosure interactions? Did they engage in refutation process at any point when carrying out the assignment? How do they feel about their experience?

Be alert to negative interpretations on the parts of any group member. If you detect them, engage in a refutation process with that individual in front of the group.

Deepening a Friendship

Having tried to share a personal issue with a particular acquaintance, the next step will be to continue to foster increasing intimacy with that individual. However, once more the lonely person often refrains from taking the initiative in a relationship out of concern that the other person really is not interested enough in them to want to know more. Here, thoughts revolving around being different than other people, of being socially incompetent and boring may prevent the lonely person from working on deepening a friendship. One self-disclosure experience will not be enough to counteract the pessimism of the lonely.

Week Eight should be spent reviewing the experiences of the group

members as they have learned to identify their own cognitions, and have tried to test out the accuracy of their own self-perceptions and of their interpretations of the behavior of others. Are they having trouble in carrying out rational restructuring? If so practice the process with the individual and ask the rest of the group to help out.

Are there particular situations that still seem to bring out all their negativity? If so what are those situations? What about them seems to be so intimidating?

Stress Innoculation Training

> "This week's homework will involve trying out a more difficult social situation. Each of you can choose the specific situation on your own and then fill me in on what you're going to be doing. Since you will have chosen that interaction for its level of challenge, you will find it useful to do some relaxation exercises while planning how to go about doing the activity, as well as immediately before entering the situation. Another technique will also be extremely helpful and we will spend the remainder of today's session discussing that technique. It is called stress innoculation and involves just what it's name implies. It is a way of preparing yourself for a potentially stressful situation, of coping

with the stress while in the situation and then of reducing tension once the situation has ended.

Stress innoculation training has proven to be very effective in reducing many kinds of anxiety. The foundation of effective coping is knowing how to relax. So here your at home practice of relaxation will serve you in good stead. Because stress coping is a learned skill it is essential that we start out slowly. In order to do so let's choose a social situation that will be experienced as somewhat anxiety-producing but not as completely terrifying. It is important to practice the specific interaction in your head before actually carrying it out. What you should do is rehearse it in your mind while practicing your relaxation exercises. Do this practice more than once if necessary. The goal is to have practiced it enough so that you will be less anxious when you actually perform the behavior. The first few times you practice you may not feel able to really imagine the scene. But as you practice you will be better able to feel what it will be like to be in the chosen interaction.

As you would expect, what you say to yourself as you anticipate a difficult interaction and

how you interpret that interaction will have an important influence on how you feel about it.

NOW GO OVER THE EXAMPLE FROM
THE COPING SKILLS HANDOUT

In this example, the person has just been balled out by her supervisor for forgetting an appointment. Her physical response has been:

She has responded behaviorally by apologizing and escaping the situation as soon as possible.

Her thoughts and interpretation will have an impact on her feelings. If she thinks: 'I'm falling apart, I can't ever work with him again", she will be distraught, and fearful. If she thinks: "That creep is always out to get me", she will feel angry and resentful.

So when you go through preparing yourself to carry out the homework assignment, it is important to be aware of what you are thinking about the upcoming event and about yourself. Your thoughts don't need to make you feel worse. Instead you can think things that will calm you down and make you feel able to cope. You can use those stress-coping thoughts before you enter the

interaction, while you are in the situation and while you interpret it's outcome.

In preparing for the stressful interaction, you can tell yourself:

There's nothing to worry about.

I'll do alright.

I've succeeded at this before.

It's easier once you get started.

Tomorrow I'll be through it. Etc.

While actually in the situation you can tell yourself:

Take it step by step.

I can do this.

I only have to do my best.

I know how to cope with feeling tense.

And no matter how the interaction goes you can cope by telling yourself specific things about your performance. If it didn't go well you can tell yourself: "Relax and Breath deeply", that it's at least over, that I've survived worse than this.

If it went well be sure to reward yourself: "I did it!", "Next time I won't be so worried."

Your handout has extensive lists of coping thoughts. You can use those or make up a list of your own and memorize them. Be sure to keep your list handy (in your wallet) and use them when you are faced with a stressful situation.

Now let's spend some time doing relaxation training while you each cognitively rehearse your social interaction for the coming week.

HOMEWORK

(1) Practice the selected stressful social situation in your head while relaxing.

(2) Carry out the interaction using the coping thoughts.

Stress Coping Thoughts

Having mastered relaxation skills using the hierarchy, you are ready to create a personal list of stress coping thoughts. Stress coping thoughts can short circuit painful emotions. To understand how they work, you must consider the four components of an emotional response:

1. The stimulus situation: Your supervisor has just gotten angry at you for forgetting an appointment.
2. Physical reactions: Your automatic nervous system produces symptoms such as hand tremor, tightness in the stomach, sweating, palpitations, light headedness, etc.
3. Behavioral response: You attempt to deal with the situation by apologizing and getting away as quickly as possible.
4. Thoughts: Your interpretations of the situation, predictions and self evaluations are what creates emotions. If, at this point, you say to yourself, "I can't stand this ... It's too much for me ... I'm falling apart," then the emotional response will be fear. If your self statements are, "I've had it with him riding me all the time ... He's a real sadist," then your emotional response is likely to be anger.

Your interpretation of the incident, how you imagine it will affect the future, and what you say to yourself about your own worth are the ways you select and intensify the emotions you will feel.

If you say to yourself, "I'm going to fail (prediction), I'm too

nervous and disorganized for this kind of job (self evaluation), I know he wants to get rid of me (interpretation)," then your physiological response will probably be sweating, tremor and a knot in your stomach. Noticing the physical reactions, you then might think, "I'm panicking. I can't do this anymore, I've got to go home." These self statements in turn increase the physiological symptoms and the tendency to make poor decisions. The feedback loop from thoughts to physical reactions to behavioral choices to more negative thoughts can continue unbroken into a state of chronic stress.

Your thoughts don't have to intensify fear. Instead, they can act as tranquillizers for a tense stomach, calming you and pushing away panic. The feedback loop can work for you as well as against you. Stress coping thoughts tell your body there is no need for arousal--it can relax. In the middle of any stressful situation, you can begin saying to yourself a series of fear conquering statements such as, "Stay calm ... You've dealt with this before ... Relax now ... He/she can't really hurt me."

The more attention you give to your coping monologue, the quicker will come relief from physiological arousal and what was described in chapter one as the "fight or flight" reaction. Make your own list of stress coping thoughts, and memorize them. Meichenbaum and Cameron's stress inoculation program suggested the following categories for stress coping statements:

1. Preparation

There's nothing to worry about.

I'm going to be all right.

I've succeeded with this before.

What exactly do I have to do?

I know I can do each one of these tasks.

It's easier once you get started.

I'll jump in and be all right.

Tomorrow I'll be through it.

Don't let negative thoughts creep in.

2. Confronting the stressful situation

Stay organized.

Take it step by step, don't rush.

I can do this, I'm doing it now.

I can only do my best.

Any tension I feel is a signal to use my coping exercises.

I can get help if I need it.

If I don't think about fear I won't be afraid.

If I get tense, I'll take a breather and relax.

It's OK to make mistakes.

3. Coping with fear

Relax now!

Just breathe deeply.

There's an end to it.

Keep my mind on right now, on the task at hand.

I can keep this within limits I can handle.

I can always call _____.

I am only afraid because I decided to be. I can decide not to be.

I've survived this and worse before.

Being active will lessen the fear.

4. Reinforcing success

I did it!

I did all right. I did well.

Next time I won't have to worry as much.

I am able to relax away anxiety.

I've got to tell _____ about this.

It's possible not to be scared. All I have to do is stop thinking I'm scared.

Some of these stress coping thoughts may work for you, but your best ones will probably be those you write yourself. Memorize a number of them for each of the four stages of coping: preparation for stress,

facing the challenge, feeling the rising fear, and self congratulation. Make the coping statements meaningful to you, and change them if they begin to lose their power. Keep the list handy: scotch tape some of the most useful stress coping thoughts on your nightstand, over the kitchen sink, on the inside flat of your briefcase. Slip them inside the cellophane of your cigarettes. Let them become second nature.

A note of caution: some people are afraid to tempt fate by congratulating themselves for any achievement. They harbor the superstition that self praise causes disaster. What this really means is that something else, such as fate or luck, is also given credit for their successes. Taking credit for coping means that you are responsible for how things turn out, and you have power to limit painful emotions.

Coping "In Vivo"

The final step in the training is applying coping skills in real life situations. When encountering stress, body tension is used as a cue to relax away tightness. At the same time, stress coping thoughts flow in a constant stream as you prepare for and confront the situation, limit the fear, and praise yourself for meeting the challenge.

It is expected that using coping skills in vivo will be more difficult than relaxing away stress in the imagined scenes. Some setbacks are inevitable. Practice however, will make relaxation and stress coping thoughts so natural that they will automatically begin at the first clutch of tension.

Example

A kitchen remodeling contractor, who felt shy and worried excessively about his business, made the following hierarchy:

Rank	Item	Suds (Subjective Units of Distress)
1	Attempting to figure out the bills	5
2	Repair on maintenance of the car	10
3	Read about falling construction market and tight money. Concerned about drop in business	15
4	Going camping to Yosemite alone	20
5	Waking up Saturday morning with absolutely no planned activities for the weekend	25
6	Measurement is off and produces a noticeably poor fit	30
7	Dental visit	35
8	Having a small group over to the apartment for dinner. Friends from the singles group	40
9	Past 2:00 a.m. and still not able to sleep	45
10	Construction materials on order do not arrive, delaying work	50
11	Going to dinner party including new woman friend's sister and ex-roommate from college. Strangers	55
12	Bouts of worry during layoff period between jobs	60
13	Striking up a conversation at a party for singles	65
14	First evening with a new woman friend. Dinner, dancing	70
15	Required to make presentation of remodeling options to a prospective customer	75

Rank	Item	Suds (Subjective Units of Distress)
16	First sexual overtures to a new woman friend	80
17	Coldly turned down for a date	85
18	Customer is quite displeased with kitchen cabinets, workmanship, etc.	90
19	Visit to father, whose worsening heart condition leaves him observably more frail	95
20	Cost of a job is running over the original bid to do the work	100

Following mastery of relaxation procedures and construction of the hierarchy, an attempt was made to call into imagination the first stressful situation (5 suds). He had difficulty, however, visualizing the scene. Bills were usually made out in: small den, furnished with desk and easy chair. He went to the den and wrote down his sense impressions: "Window looking out on lamp pole and street, green desk blotter, hum of fluorescent light, squeak of swivel chair, rustle of shuffling papers, aftertaste from licking stamps and envelopes." The elements of the scene were tape recorded and played back. He repeated the tape until he could construct a vivid image of the setting in imagination. The effort invested in sharpening his imagination in the first scene paid off with the others. They were easier, and he knew he could tape record a vivid picture if there was any difficulty.

Moving through the hierarchy, he learned to watch for the first signs of tension--usually in his diaphragm and upper abdomen. These became the signal to relax away stress. Holding the image of a scene for 30-40 seconds, he "listened" to his body, focusing on deep breathing and

progressive relaxation. After visualizing a scene twice, for at least 20 seconds each time, without tension or anxiety, he proceeded to the next item on the hierarchy. Sometimes, he would have to visualize a situation six or more times before the image held no anxiety.

Practice was scheduled mornings and evenings for 15 minutes. He was able to successfully relax away tension in four to five scenes per day and within five days he completed the hierarchy. The hierarchy was then repeated, start to finish, one additional time.

Cognitive Restructuring

WEEK NINE

I. Review Homework Experiences

-Were the women able to conduct their chosen activities?

-Were they aware of negative thoughts at any point during the activity?

-Did they try to use coping thoughts?

-Any problems?

II. Go Over the Example From the Handout

III. Role Play

Role play a Rejection Experience with several group members in front of the group. What were their thoughts during the role play? Could they or did they use coping statements?

IV. Conclude with a closure/termination discussion.

V. Fill out the assessment devices and behavior assessment. Hand out the interaction diaries and make arrangements to have them handed in next week.

VI. Follow-Ups

Addresses of the group members and of significant other.

Remind them about money available at the follow-up.

Appendix O

Follow-Up Cover Letters

Dear

I hope you will remember the psychology experiment you took part in this school year for which you received 7 experimental credits. At the time of your completion of the study Robin, Diane and I had you fill in for a second time questionnaires you had completed at the beginning of the study in the end of January.

I am writing to ask you to do me the favour of completing those same questionnaires in follow-up. We are interested in comparing the questionnaire responses at those three points in time.

Your response to the follow-up questionnaire are essential to my doctoral dissertation research.

Once I have analysed the questionnaire data I will make the conclusions of the study available to you.

I have enclosed a return envelope. I would be very grateful if you would complete the questionnaires as soon as possible and return them to me in the stamped return envelope.

When I receive your completed questionnaires I will mail you $5.00 to reimburse you for the time spent filling in the questionnaires.

Thank you for your help in making my dissertation a success.

Sincerely yours,

Janet Orchard

Dear

Thank you so much for your prompt response to my questionnaires. You have been of great assistance to me. I waited until I had received all the questionnaires before I began to mail out the $5.00 remunerations, sorry for the delay.

In addition to thanking you for your cooperation in my study I would also like to offer you the chance of being involved in the groups that will begin in late September of this school year. The content of the groups will cover friendship making skills which will be helpful in social relationships and career goals. Should you be interested in taking part in a group please give me a call during the first week of September (Ph. #).

I will send you feedback on the results of the study once this year's groups are finished.

Thank you again for your help.

Sincerely,

FOR: Waiting List Control

August 20, 1984

Dear

Thank you so much for your prompt response to my questionnaires. You have been of great assistance to me. I waited until I had received all the questionnaires before I began to mail out the $5.00 remunerations; sorry for the delay.

I will send you feedback on the results of the study once this year's groups are finished.

Thank you again for your help.

Sincerely,

FOR: Treatment Subjects

Appendix P

Graphs of Intimacy Ratings

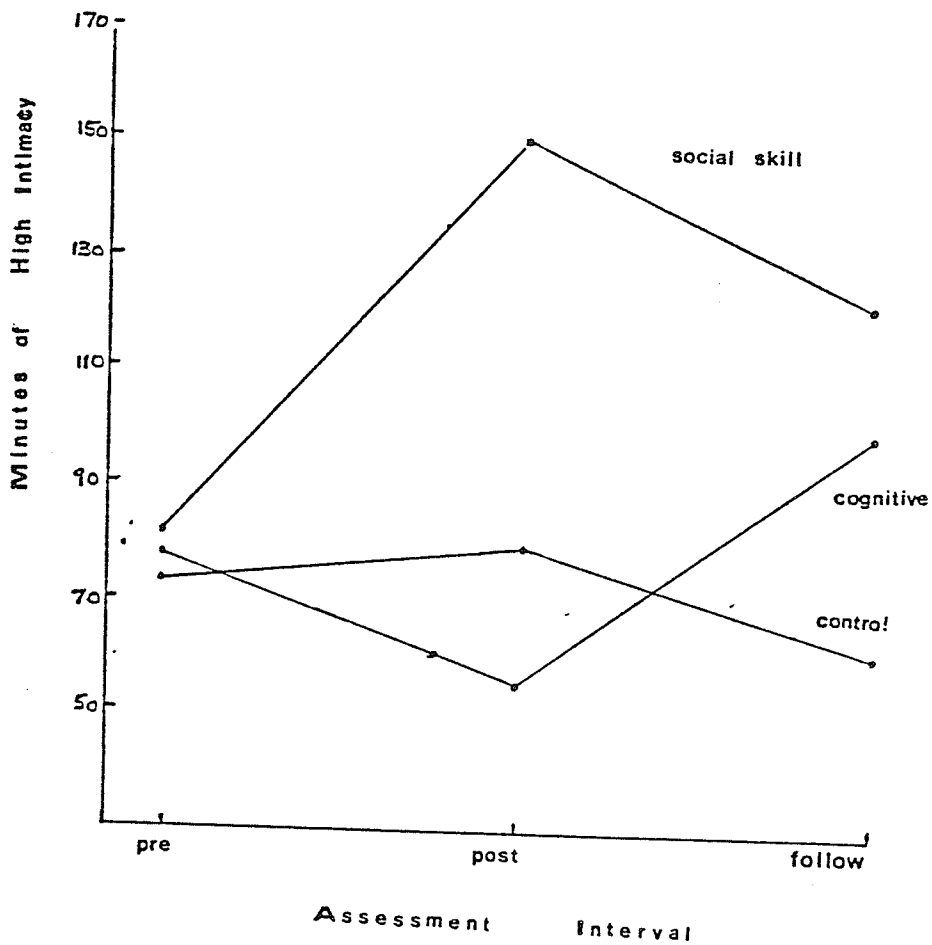

Figure P1. Patterns of change over time in amount of high intimacy interaction varied as a function of subject group

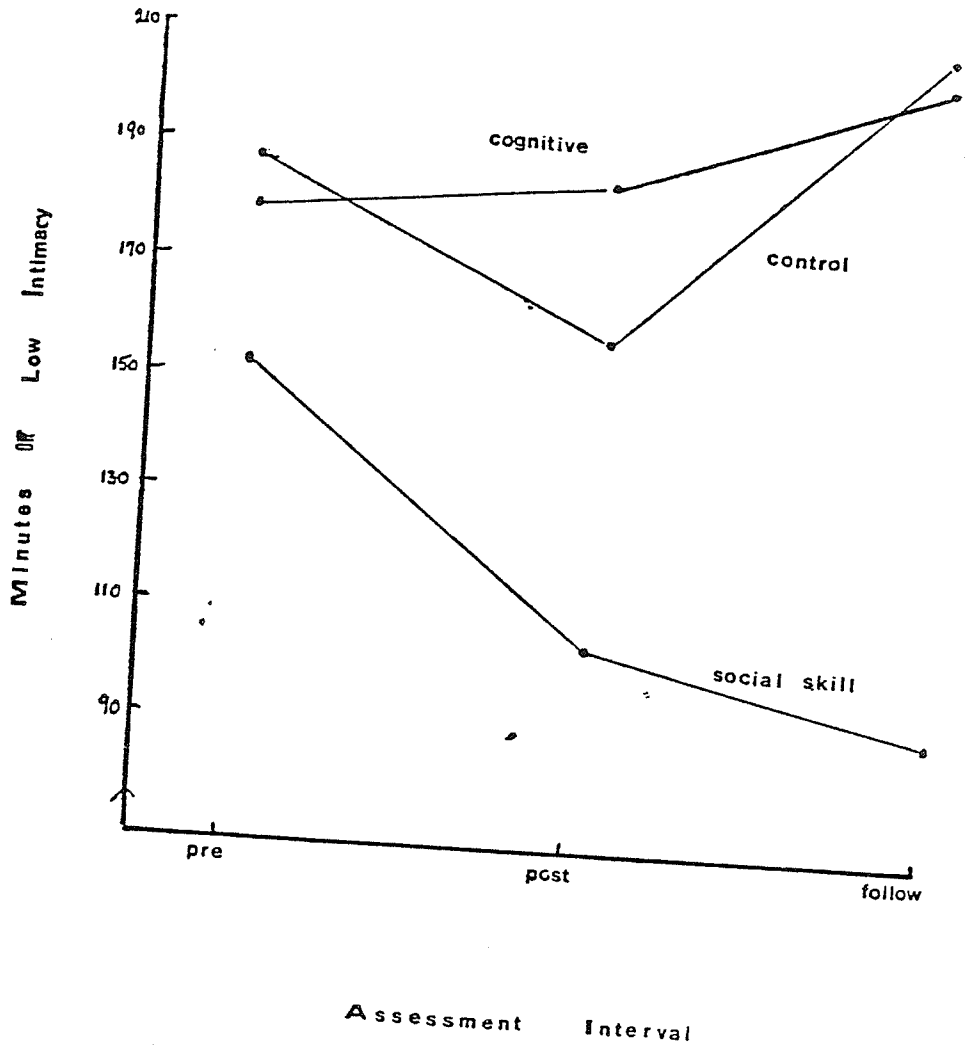

Figure P2. Changes over time in amount of low intimacy interaction reported - Differences between subject groups

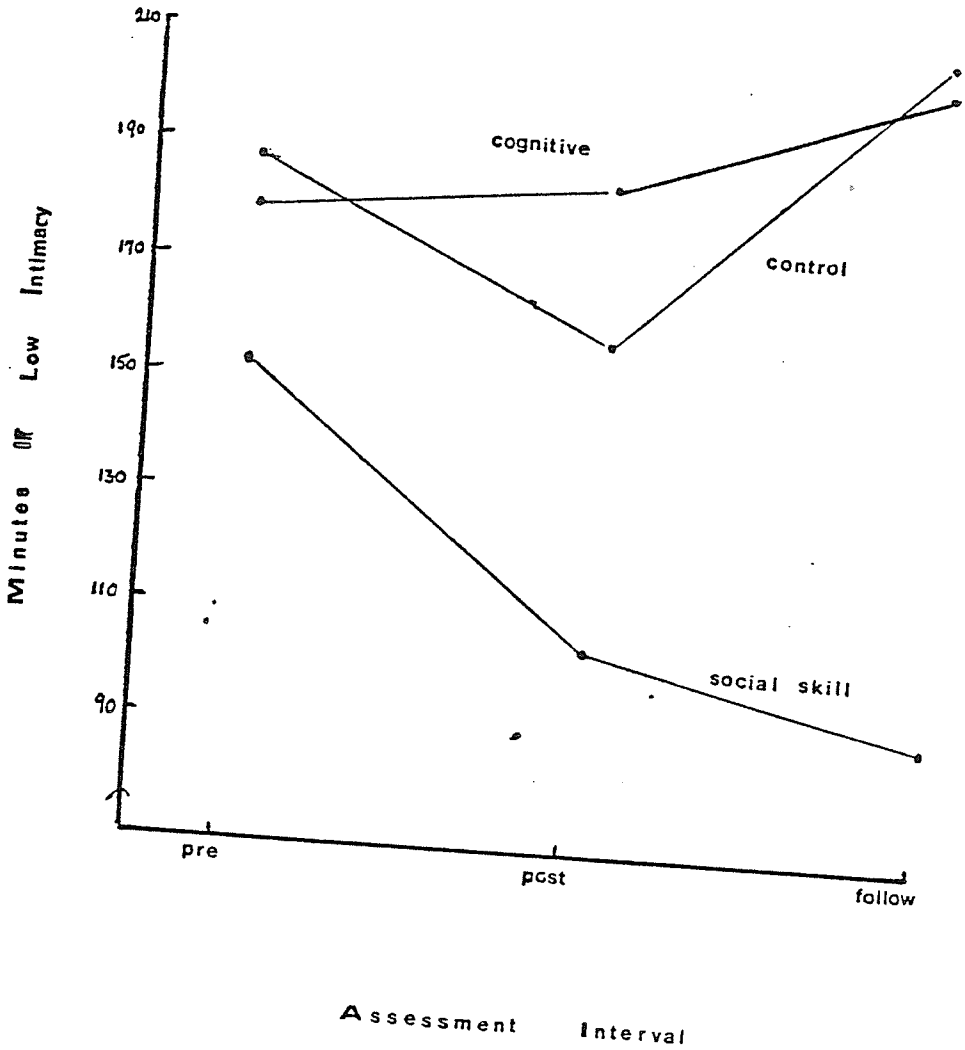

Figure P3. Changes over time in amount of medium intimacy interaction reported - Differences between subject groups

Appendix Q

Summary Tables of Main Analyses

Table Q 1

Multivariate Analysis of Variance Summary Table
Test of Effect of Therapist Factor on
UCLA, CES-D, SES

Source	Approximate F	df	p
Treatment	.108	2, 61	.898
Therapist	.936	6, 122	.472
Time	26.929	4, 59	.000 **
Treatment x Therapist	.766	6, 122	.598
Treatment x Time	.405	4, 59	.804
Therapist x Time	.424	12, 156	.952
Treatment x Therapist x Time	.741	12, 156	.710

** $p < .01$

Table Q 2

Multivariate Analysis of Variance Summary Table
Relationship of Therapist and Treatment Factors
Video Data

Source	Approximate F	df	p
Treatment	.662	4, 64	.621
Therapist	1.204	12, 169	.284
Time			
Treatment x Therapist	.822	12, 169	.566
Treatment x Time	1.100	8, 60	.376
Therapist x Time			
Treatment x Therapist x Time	1.168	24, 174	.278

Table Q 3
Cell Means of Treatment Groups on Five
Dependent Measures Over Time

Group	Dependent Measure														
	UCLA			CES-D			SES			SMS			FNE		
	Pre	Post	Follow	Pre	Post	Follow	Pre	Post	F	Pre	Post	F	Pre	Post	F
Social Skill	54.7	44.4	41.7	20.1	13.1	12.2	25.7	29.0	29.4	11.7	12.9	12.1	20.5	16.4	14.6
Cognitive	52.8	43.7	41.8	21.3	15.0	11.3	26.4	29.8	30.3	10.4	10.8	10.2	20.7	16.8	14.7
Waiting List Control	51.9	47.7	44.8	21.6	17.6	19.1	27.1	27.8	28.3	11.1	10.7	10.8	20.2	18.1	17.4

Table Q 4

Mulitvariate Analysis of Variance Summary Table
Tests Performed on UCLA, CES-D, SES

Source	Approximate F	df	p
Treatment	1.160	6, 204	.329
Time	20.245	6, 99	.000 **
Treatment x Time	1.943	12, 198	.031 *

* $p < .05$

** $p < .01$

Table Q 5

Analysis of Variance Summary Table
FNE and SMS

	Fear of Negative Evaluation			Self-Monitoring Ability		
Source	F	df	p	F	df	p
Treatment	1.933	2, 104	.141	1.752	2, 103	.179
Time	14.128	2, 104	.000 *	.440	2, 104	.645
Treatment x Time	.642	4, 104	.634	.408	4, 104	.803

* $p < .01$

Table Q 6

Multivariate Analysis of Variance Summary Table
Video Data

Source	Approximate F	df	p
Treatment Main Effect Pretreatment	1.666	12, 212	.076
Treatment Main Effect Post-Treatment	1.436	12, 212	.151

Table Q 7

Multivariate Analysis of Variance Summary Table
Intimacy Ratings

Source	Approximate F	df	p
Treatment	2.386	6, 194	.030 *
Time	1.949	6, 94	.081
Treatment x Time	1.599	12, 188	.095

* $p < .05$

Table Q 8

Multivariate Analysis of Variance Summary Table
Interaction Diary Data

Source	Approximate F	df	p
Treatment	.575	10, 190	.833
Time	1.191	10, 90	.308
Treatment x Time	.838	20, 180	.665

Table Q 9

Multivariate Analysis of Variance Summary Table
Coping Style Data

Source	Approximate F	df	p
Treatment	.765	8, 194	.634
Time	2.927		.006 **
Treatment x Time	.950	16, 186	.514

** $p < .01$

Table Q 10

Multivariate Analysis of Variance Summary Table
Attributions for Success

Source	Approximate F	df	p
Treatment	1.513	8, 174	.156
Time	3.111	8, 83	.004 **
Treatment x Time	.598	16, 165	.882

** $p < .01$

Table Q 11

Multivariate Analysis of Variance Summary Table
Attributions for Failures

Source	Approximate F	df	p
Treatment	2.709	8, 190	.008 **
Time	3.285	8, 91	.002 **
Treatment x Time	.910	16, 182	.559

** $p < .01$

Table Q 12

Subject Group Means on the Five Relationship Skills

Subject Group	Dependent Variables														
	Relationship Initiation			Assertiveness			Emotional Support			Self Disclosure			Conflict Resolution		
	Pre	Post	Follow	Pre	Post	Follow	Pre	Post	Follow	Pre	Post	Follow	Pre	Post	Follow
Social Skills	27.7	31.6	32.5	27.8	30.7	31.9	37.7	40.3	40.1	26.9	32.1	31.7	33.4	36.0	35.3
Cognitive Restructuring	28.4	31.8	32.1	28.6	29.2	30.7	39.0	40.1	40.6	27.0	30.5	31.7	33.2	34.6	34.2
Waiting List Control	29.9	32.2	31.3	28.6	30.4	30.8	39.2	39.3	38.9	29.2	31.6	31.5	33.0	33.5	33.2

Note: Higher scores represent greater perceived competency. Total score possible = 50.

Table Q 13

Multivariate Analysis of Variance Summary Table
Perceived Social Skill Ratings

Source	Approximate F	df	p
Treatment	.467	10, 198	.910
Time	4.687	10, 94	.000 **
Treatment x Time	.646	20, 188	.874

** $p < .01$

Table Q 14

Multiple Regression of Coping Styles and Social Skill Ratings on UCLA Loneliness Scores

	Full Equation Multiple *r*	r^2	*F*	*p*
	.507	.257	3.616	.0007 **
Variable	Beta	*I*		Sig T
Social Interaction	-.357	-3.972		.000 **
Emotional Supportiveness	-.235	-2.610		.010 **

** $p < .01$

Table Q 15

Multivariate Analysis of Variance Summary Table
Influence of Initial Level of Relationship Skill

Source	Approximate *F*	*df*	*p*
Treatment	1.017	6, 156	.416
Time	13.839	6, 75	.000 **
Relationship Skill	5.223	9, 189	.000 **
Treatment x Time	1.688	12, 150	.075
Treatment x Relationship Skill	1.930	18, 221	.015
Time x Relationship Skill	1.250	18, 212	.227
Treatment x Time x Relationship Skill	.622	36, 332	.960

** $p < .01$

Table Q 16

Multivariate Analysis of Variance Summary Table
Influence of Initial Level of Fear
of Negative Evaluation

Source	Approximate F	df	p
Treatment	1.190	6, 192	.313
Time	17.952	6, 93	.000 **
Level of Fear of Negative Evaluation	4.184	6, 192	.001 **
Treatment x Time	1.722	12, 186	.065
Treatment x Fear of Negative Evaluation	1.056	12, 254	.398
Time x Fear of Negative Evaluation	2.289	12, 186	.010 **
Treatment x Time x Fear of Negative Evaluation	.708	24, 325	.844

** $p \leq .01$

Appendix R

Pearson Correlations Between the Dependent Measures at the Three Assessment Intervals

Table R 1

Pearson Correlations of Dependent Measures at Pre-Treatment

Variables	UCLA	CES-D	SMS	SES	FNE	Relationship Initiation	Assertiveness
UCLA							
CES-D	.381						
SMS	.068	.108					
SES	-.464	-.620	-.215				
FNE	.337	.445	.164	-.529			
Relationship Initiation	-.532	-.177	.192	.406	-.360		
Assertiveness	-.339	-.277	.065	.363	-.348	.562	
Self Disclosure	-.540	-.209	-.011	.339	-.340	.646	.516
Emotional Support	-.241	-.147	.055	.285	-.128	.424	.477
Conflict Resolution	-.227	-.228	-.162	.332	-.239	.259	.356
Sad Passivity	.281	.427	.210	-.551	.510	-.294	-.407
Social Interaction	-.362	-.227	.006	.270	-.201	.308	.322
Active Solitude	.072	.070	.006	-.126	.111	-.017	-.115
Positive Thinking	-.121	-.295	-.176	.481	-.369	.191	.323

Table R 2

Pearson Correlations of Dependent Measures at Pre-Treatment

Variables	Self-Disclosure	Emotional Support	Conflict Resolution	Sad Passivity	Social Interaction	Active Solitude	Positive Thinking
Self Disclosure	---						
Emotional Support	.377	---					
Conflict Resolution	.385	.600	---				
Sad Passivity	-.307	-.246	-.419	---			
Social Interaction	.345	.211	.168	-.244	---		
Active Solitude	-.031	-.017	-.033	.154	.035	---	
Positive Thinking	.113	.256	.485	-.519	.241	-.150	---

Table R 3

Pearson Correlations Between Dependent Measures at Post-Treatment

Variables	UCLA	CES-D	SMS	SES	FNE	Relationship Initiation	Assertiveness
UCLA	---						
CES-D	.487	---					
SMS	-.049	-.032	---				
SES	-.622	.613	.010	---			
FNE	.518	.444	.022	-.481	---		
Relationship Initiation	-.489	-.176	.228	.468	-.332	---	
Assertiveness	-.335	-.240	.030	.286	-.231	.522	---
Self Disclosure	-.425	-.093	-.006	.248	-.143	.668	.570
Emotional Support	-.310	-.183	.070	.232	-.039	.401	.400
Conflict Resolution	-.309	-.349	.047	.298	-.274	.406	.428
Sad Passivity	.014	.172	-.011	-.143	.169	.040	-.004
Social Interaction	-.459	-.258	.092	.373	-.180	.361	.267
Active Solitude	-.037	-.137	-.017	.244	-.138	.027	.054
Positive Thinking	-.216	-.353	.007	.352	-.360	.173	.276

Table R 4

Pearson Correlations Between the Dependent Measures at Post-Treatment

Variables	Self-Disclosure	Emotional Support	Conflict Resolution	Sad Passivity	Social Interaction	Active Solitude	Positive Thinking
Self Disclosure	---						
Emotional Support	.429	---					
Conflict Resolution	.440	.712	---				
Sad Passivity	.129	.007	-.031	---			
Social Interaction	.349	.299	.358	-.067	---		
Active Solitude	-.078	.022	.162	-.281	.344	---	
Positive Thinking	.055	.232	.346	-.317	.381	.422	---

Table R 5

Pearson Correlations Between Dependent Measures at Follow-Up

Variables	UCLA	CES-D	SMS	SES	FNE	Relationship Initiation	Assertiveness
UCLA	---						
CES-D	.577	---					
SMS	-.040	-.072	---				
SES	-.670	-.641	.041	---			
FNE	.421	.392	.159	-.478	---		
Relationship Initiation	-.459	-.144	.116	.407	-.364	---	
Assertiveness	-.395	-.295	.029	.391	-.411	.676	---
Self Disclosure	-.471	-.266	-.037	.379	-.374	.689	.685
Emotional Support	-.347	-.315	.041	.348	-.178	.457	.560
Conflict Resolution	-.237	-.261	.011	.364	-.382	.464	.510
Sad Passivity	.127	.057	.199	-.133	.019	-.199	-.141
Social Interaction	-.366	-.252	-.015	.366	-.226	.365	.449
Active Solitude	.094	-.043	-.112	.175	-.136	.122	.111
Positive Thinking	-.052	-.151	-.119	.269	-.315	.237	.375

Table R 6

Pearson Correlations Between Dependent Measures at Follow-Up

Variables	Self-Disclosure	Emotional Support	Conflict Resolution	Sad Passivity	Social Interaction	Active Solitude	Positive Thinking
Self Disclosure	---						
Emotional Support	.546	---					
Conflict Resolution	.496	.602	---				
Sad Passivity	-.227	-.168	-.031	---			
Social Interaction	.522	.436	.400	-.234	---		
Active Solitude	.161	.123	.273	-.214	.307	---	
Positive Thinking	.298	.401	.492	-.049	.480	.361	---

Appendix S

Graphs of the Relationships Between Initial Social Skill and Fear of Negative Evaluation and Change in Loneliness and Self-Esteem

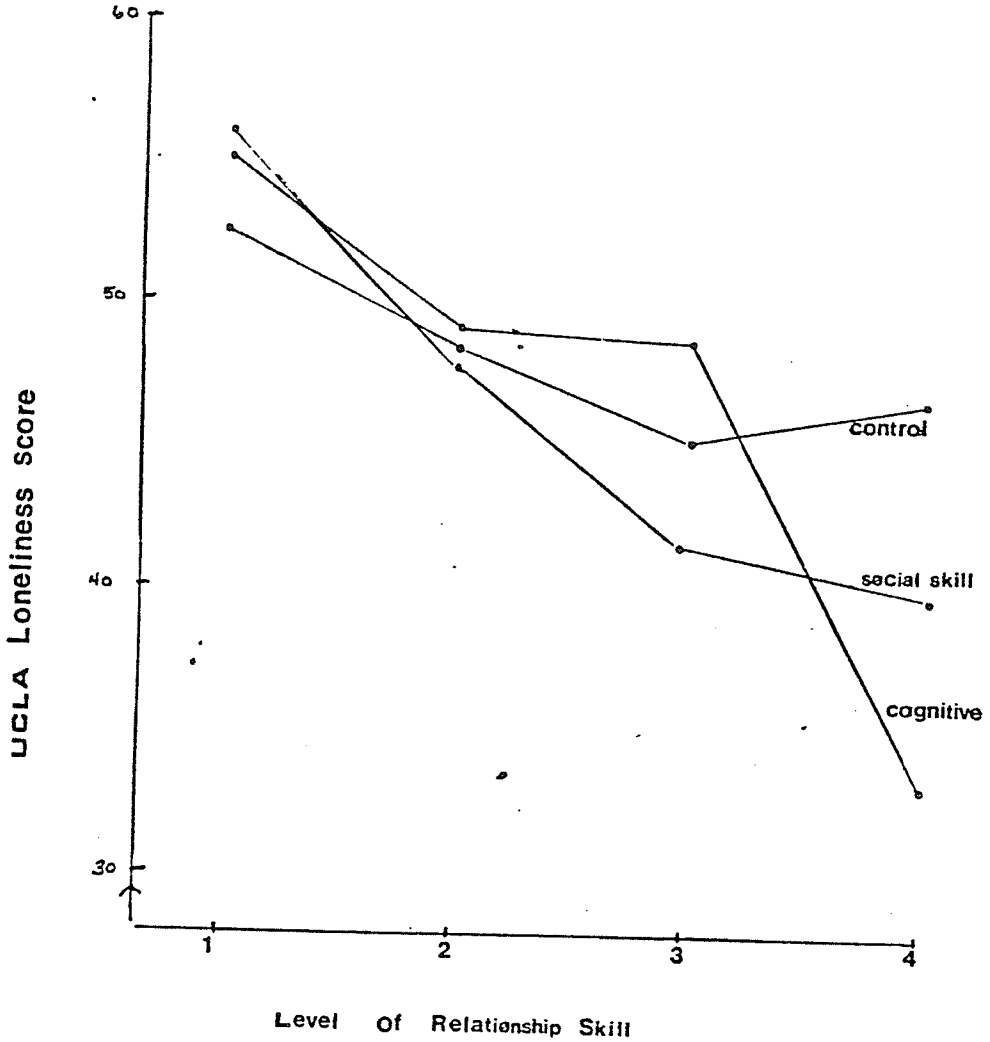

Figure S1. Scores on UCLA Scale for each level of relationship skill factor as a function of treatment condition

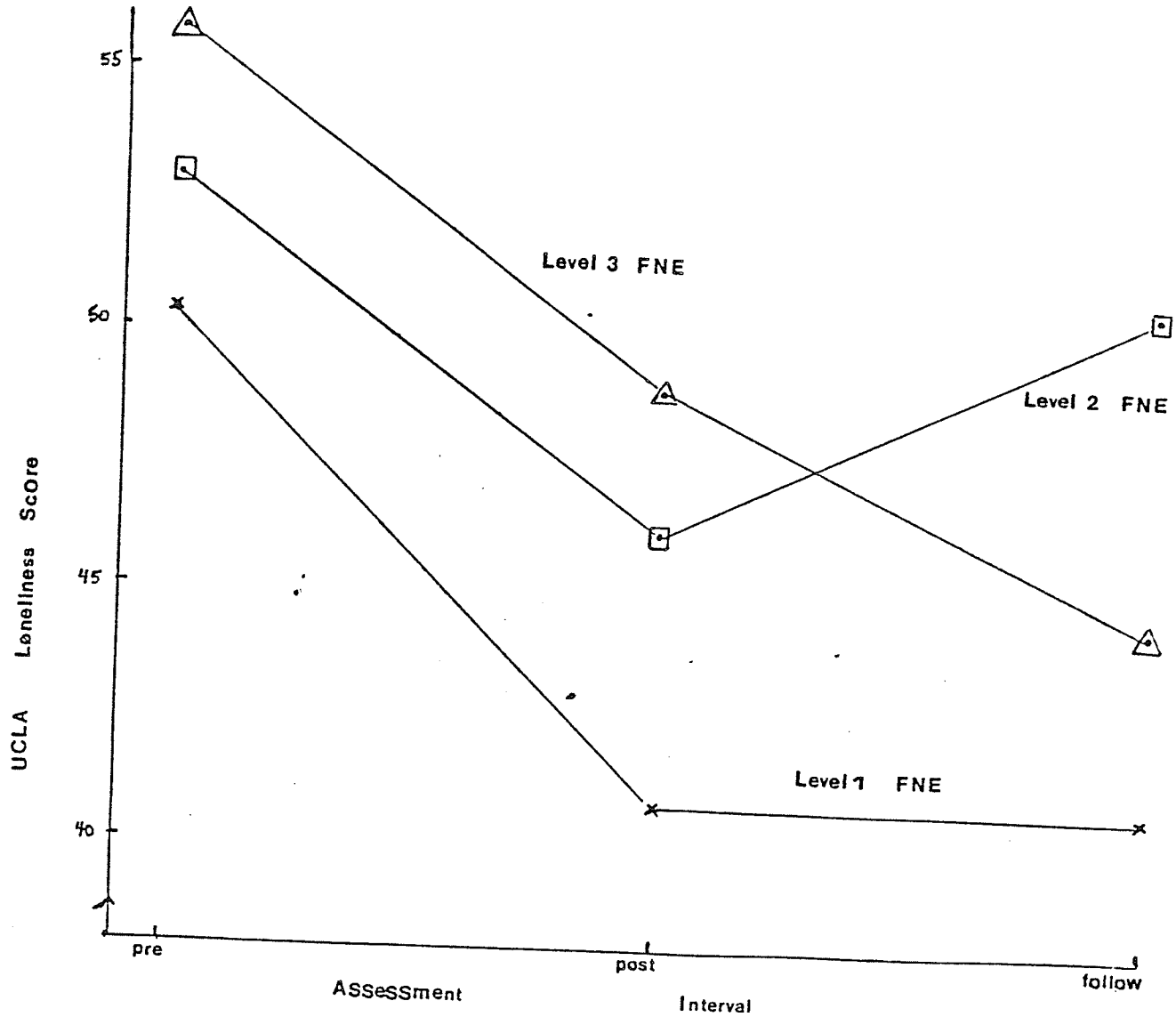

Figure S2. Changes over time on UCLA Scale for each level of the fear of rejection factor

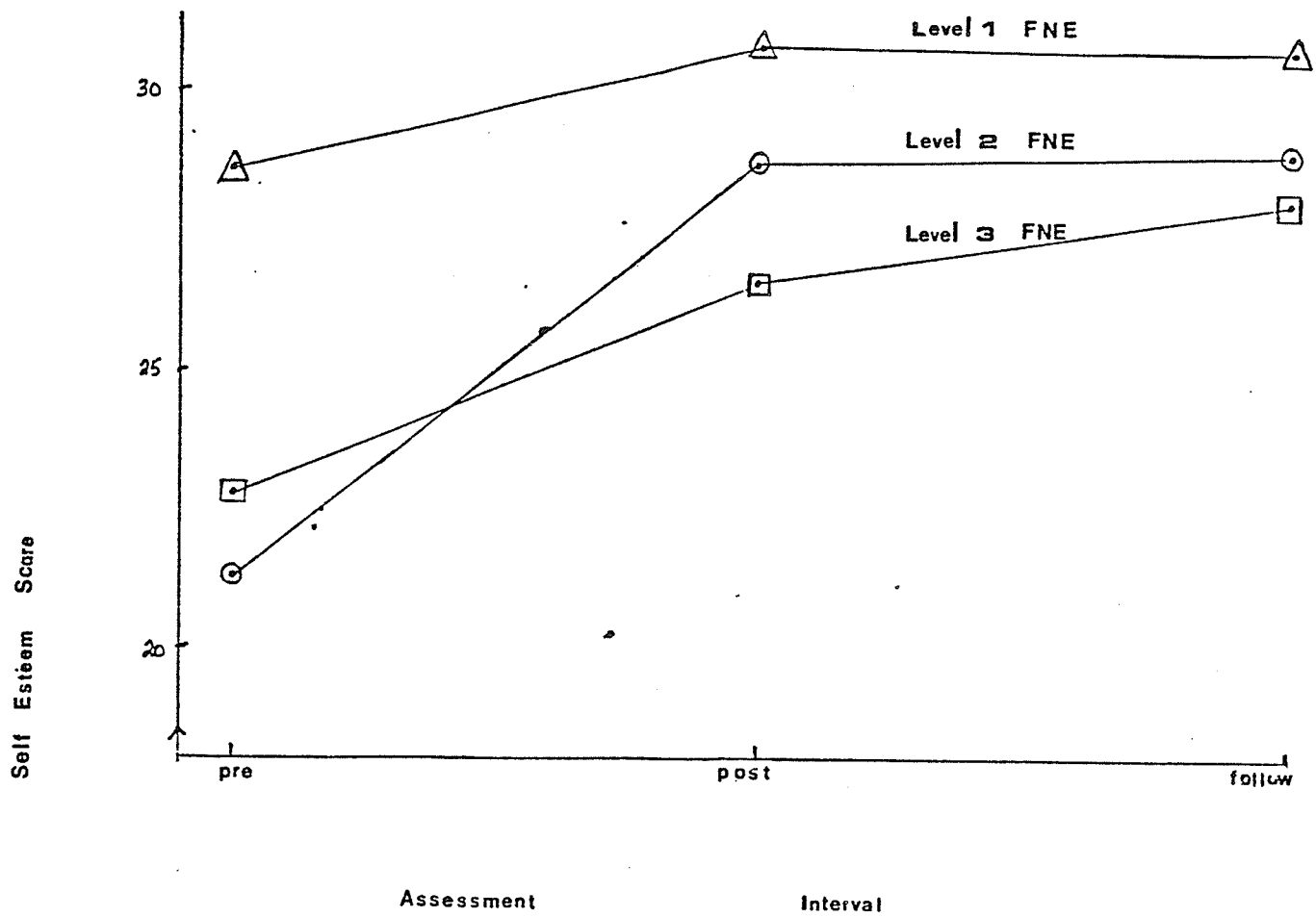

Figure S3. Changes over time on Self-Esteem Scale for each level of fear of rejection factor