Stress and Lifestyle Management Group Therapy Program

By

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Abstract

Excessive stress can be debilitating when it is not under careful control. The development of a Stress and Lifestyle Management Group Therapy Program was designed to instruct people who have a low stress tolerance, to deal with and control stress. Stress management included cognitive therapy, assertiveness training, and progressive relaxation training. Emphasized in Lifestyle management was physical exercise, diet control and weight loss, time management, the effective use of leisure time, understanding the purpose of one's social support system, and other aspects important to a healthy lifestyle. Clients were referred by doctors, were male or female, and were between 18 and 65 years of age. Clients who were accepted into the program were not severely depressed and did not require intensive individual counseling. These subjects were randomly divided into an experimental group and a waiting list control group. The program consisted of an individual intake interview, six one-and-a-quarter hour weekly group sessions, a group follow-up session three weeks later, and an

individual follow-up interview. A battery of six tests assessed the changes in the clients' abilities to manage stress and related problems and these measures were taken before and after the program. The test results indicated a decrease in the level of depression of the subjects who were treated. The program was evaluated as a success based on this result.

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The recognition of stress, its adverse effects, and learning effective coping methods have become crucial issues not only for today's psychologists, but for everyone. Stressful situations have the potential to hinder daily functioning and impair successful coping with life in general. The lifestyle a person follows can also take its toll as mental health coincides with physical imbalances. Stress does not necessarily have to be debilitating as people can learn to control the amount of stress in their life and control the effects of stress, both through stress management and through lifestyle changes. Stress is perceived more and more as a contributing factor to the onset of many diseases and disorders, and this places an urgent emphasis on learning to manage both situational and chronic stress.

Definition of Stress. Stress can be defined as the body's physiological, emotional, behavioural, and cognitive reactions to a stressor. A stressor is any situation, demand, or circumstance which requires the body to make an adaptation or an

adjustment in order to maintain its state of equilibrium or homeostasis; this is the stress response (Zastrow, 1984; Buckner, 1984; Selye, 1980; Girdano and Everly, 1979; McQuade, 1974; McGrath, 1970). Selye, a renowned theorist and a pioneer in stress research, describes this stress response or adaptation in terms of his theory of the General Adaptation Syndrome (GAS). In the alarm stage the stress is recognized and the body prepares physiologically for action. This physiological reaction increases heartrate, blood sugar levels, blood pressure, causes the body to perspire, and temporarily slows down bodily systems such as the digestive system to provide the parts of the body undergoing stress with added energy and strength. In the resistance stage, the body attempts to make the adjustment or adaptation to return itself to the state of equilibrium. The body also begins to repair any damage which was caused by the stressors as it continues to adapt to the situation. The human body experiences these two stages many times per day, returning the body to its state of balance. However, if the stress continues for an extended period of time, or if the

body is unable to repair the damage which was done, then the body enters the exhaustion stage. If exhaustion continues, a person could develop one or more stress-related diseases (Zastrow, 1984; Selye, 1956; 1980).

Selye's (1956) theory is constantly being refined as new research develops into new theories. Rotter (1966) developed the concept of internal and external locus of control; Lazarus (1981) and Folkman (1984) emphasized personal control. Holmes and Rahe (1967) viewed a person's degree of exposure to stress as an important variable, and suggested this might be measured by ranking life events recently experienced for the amount of stress they create. This relates back to Selye's work, as Holmes and Rahe are measuring the change a person must cope with, while Selye doesn't look at the nature of the change, but at the adaptation that is needed to cope with this change. "The underlying assumption has been that change per se has the capacity to interfere with the immunological response system" (Waterhouse, 1984, p.118).

Stress Management - Cognitive Approach. More recently the emphasis has been on the inner events experienced. For instance, anxiety and depression inventories ask how anxious or how depressed a person feels, using salient mood adjectives. Cognitive therapy is based on the underlying theory that thoughts affect feelings and actions. Thus a person's feelings and actions are evaluated for the thoughts which provoked them, and treatment consists of modifying maladaptive thinking. Interpreting an event rationally allows for adaptation to the precipitating stressor (Grieger and Boyd, 1980; Meichenbaum, 1977; Ellis and Grieger, 1977; Beck, 1976).

Many studies have been performed in attempts to validate the components of both Ellis' and Meichenbaum's cognitive theories of behaviour. Ellis (in Ellis and Grieger, 1977, Chap 2) cited over 900 studies relevant to 32 Rational Emotive hypotheses. "Well over 90% of the studies have offered statistically confirming evidence favouring RET hypotheses" (p.35). One cognitive technique which Meichenbaum proposed was stress inoculation, and he cites studies which support the efficacy of

this method. He also showed that generalization of the acquired skills to other stressful situations occurs effectively with stress inoculation training (Meichenbaum, 1977, p.158).

Stress Management - Relaxation Techniques. Another important part of stress management involves learning relaxation techniques. In the 1950's, Joseph Wolpe adapted Edmund Jacobson's work on relaxation to form a condensed version of Progressive Relaxation Training (PRT). His work was based on the concept of reciprocal inhibition "... which suggests that an undesirable emotional response can be suppressed by evoking a stronger incompatible response" (Bernstein and Given, 1984, p.43). In other words, one cannot be relaxed and tense simultaneously, thus if one learns to relax when under stress, muscle tension is not likely to develop. This ties in with cognitive therapy as well since what one thinks dictates to a large extent what one feels; it would be difficult for the mind to deliberately develop thoughts which could create tension if the body were to stay relaxed. Thus an improved state of mind develops

from muscular relaxation as well. A large variety of methods have been used to produce states of relaxation. Among these are meditation, Progressive Relaxation Training, imagery-produced relaxation, mini-vacations, cue controlled relaxation, and biofeedback. Regardless of which method is used to achieve a state of muscular relaxation, Progressive Relaxation Training is promoted by many and the technique is used widely (Wolpe, 1958; Meichenbaum, 1977; Bernstein and Given, 1984; Brown, 1977; Rathus and Nevid, 1977; Kahn and Gambel, 1983; Stevens and Pfost, 1984).

Lifestyle Management. Although there are many advantages to relaxation techniques and cognitive therapy, these are not necessarily sufficient to control stress or to prevent subsequent disease or illness. The lifestyle one maintains is an important variable in managing stress. The aspects of one's lifestyle which could potentially affect the level of one's stress include among others physical exercise, diet and nutrition, time management, level of daily activity (ranging from boredom to an overload), degree of perceived

control over situations, use of leisure time, ability to control anger and hostility, and the use of one's social support system.

Lifestyle Management - Exercise. The role of exercise in reducing stress has received much attention recently. In a study performed by Hollander and Seraganian (1984) it was found that aerobic fitness promotes more effective coping with psychological stress. Subjects were given a demanding cognitive task, and recovery from the stressor rather than the reaction to it was measured using physiological measures. "The quicker psychophysiological recovery of the aerobically fitter subjects may mediate certain psychological adaptations associated with improved physical fitness" (p.257). In a comparison of stress management interventions, Long (1984) found that both aerobic conditioning and stress inoculation were effective in reducing stress. Folkins, Lynch and Gardner (1972) had a group of joggers, a group of archers, and a group of golfers train for a preset period of time. They found that for the joggers only, psychological fitness increased as

physical fitness increased. From this the authors concluded that there was a correlation between physical fitness and psychological fitness since the change was not the same for the archers and golfers. In other words, it could not have been caused by the Hawthorne effect or by socialization as all groups should have shown equal improvement in psychological fitness if this were the case.

Another way in which to understand the role of exercise in reducing stress is to look at how animals react to a stress-provoking situation - they either fight or they run away, both physically active reactions. Man was also intended to expend energy to combat the physiological arousal which occurs naturally under stress. Girdano and Everly (1977, p.222) state,

> It is important to understand that the stress response endowed in us was intended to end in physical activity. The outpouring of sugar and fats into the blood are meant to feed the muscles and the brain so that they might contend actively with the stressor which has provoked the system. The dilation of pupils occurs to give better visual acuity, to take

> in apparent threats visually. The increased heart and respiration rates are to pump blood and oxygen to active muscles and stimulated control centers in the brain. This is not a time to sit and feel all of these sensations tearing away at the body's systems and eroding good health. This is the time to move, to use up the products, to relieve the body of the destructive forces of stress on a sedentary system.

Lifestyle Management - Diet and Nutrition. A well-balanced diet full of nutritional value promotes psychological health, and a poorly balanced diet with little nutritional value and many of the wrong foods can affect the psychological health of a person. For instance, Girdano and Everly (1979) state that caffeine will "... trigger release of the stress hormones which, among other actions, are capable of increasing heart rate, blood pressure, and oxygen demands upon the heart" (p.90). Often a person, while at work in a stressful situation, will reach for a cup of coffee. But this only reinforces a stress

reaction. People who consume a lot of table salt might also manifest a stress reaction as salt retains body fluids, which in excessive amounts will increase nervous tension or increase blood pressure. A poor diet (or prolonged stress) will also result in vitamin and mineral depletion (Girdano and Everly, 1979; Stevens and Pfost, 1984).

Cheraskin and Ringsdorf (1974) have developed a science relating poor diet to mental illness which they call Psychodietetics. "... (He) cites scientific evidence that mental illness is caused primarily by nutritional deficiencies in the brain cell environment" (p.21). The authors do not claim that simply regulating diet will in itself prevent or cure mental illness, but they feel that it is a factor which cannot be ignored. They are able to "list a variety of emotional conditions stemming from essential nutrient deficiencies or improved by nutrient supplementation" (p.21). For instance, they have evidence that a Vitamin B3 deficiency can result in insomnia, nervousness, irritability, confusion, apprehensiveness, depression, or hallucination; or a Vitamin C administration can

improve schizophrenia. They go on to say that ". all nutrients are interrelated ... the optimal functioning of every single nutrient is dependent upon the presence of every other essential nutrient" (p.22). In other words, a perfectly balanced diet of vitamins, minerals and nutrients is important as any imbalance can tip the scale on the whole system. In Psychodietics, Cheraskin and Ringsdorf (1974) discuss many issues, such as alcoholism, schizophrenia and other mental illnesses, related to diet. In the final chapter they offer what is from their standpoint the Optimal Diet.

Lifestyle Management - Time Management and Use of Leisure Time. In terms of daily living, the way we spend our time is of maximal importance. An overload of work, pressures and demands is stressful, as is boredom. Many people will do nothing for an hour to counteract the effects of a busy day, but this does not necessarily reduce stress as doing nothing can create boredom and frustration or even guilt because something could have been completed in the time. In either case,

if the problem is in delegating, learning to say no, or developing a hobby, learning time management is the key (Girdano and Everly, 1979; Zastrow, 1984; Stevens and Pfost, 1984).

Studies Which Support a Stress & Lifestyle Management Program. The above review covers some of the most important components which need to be incorporated in any Stress and Lifestyle Management program. The management of stress in one's life and the careful regulation of one's lifestyle are integrally related. In support of such programs, Yorde and Witmer (1980) developed an educational format for teaching stress management to groups with a wide range of stress symptoms. They concluded that "The prediction that a lecture/discussion format over a 4-week period would significantly alter the subjects' tendency to respond to stress with high levels of anxiety was upheld" (p.81). Woolfe (1984) designed a workshop framework and found it also effective in reducing stress. Stevens and Pfost (1984) outlined eight components which should be included in stress management interventions: an assessment,

information about stress, relaxation training, cognitive restructuring, problem solving, time management, nutritional counseling, and exercise planning. Kirmil-Gray, Eagleston, Thoresen and Zarcone (1985) recommended stress management treatments for drug-dependent insomniacs. Kahn and Gambel (1983) found success in lifestyle modification counseling in a family practice residency. Guck (1984) used stress management for chronic pain patients. Such programs and their applications are virtually unlimited in their potential to treat those who cannot cope with the stress in their lives.

The purpose of the present study is to adopt a holistic approach in the treatment of stress. A Stress and Lifestyle Management Group Therapy Program will be designed to treat clients who are suffering from high stress and anxiety and who have low stress tolerance. Stress management will include relaxation training, cognitive therapy and assertiveness training. Lifestyle management will include time management, physical exercise, education on diet and nutrition as well as guidelines to facilitate effective weight loss,

involvement in outside interests, functioning of a social support system, and other aspects important to a healthy lifestyle. A battery of tests will be administered before and after the program in order to assess improvement in stress-related symptoms attributable to the program. It is expected that each client's level of anxiety will decrease, and various measures of self concept and social skills will increase, provided that there is no underlying pathology for which the client would require intensive counseling, and which would deter improvement in these areas.

Method

Subjects. A total of 27 subjects began the Stress and Lifestyle Management Program. Subjects were randomly divided into experimental and waiting list control groups. In the experimental group, thirteen subjects completed the program, and attended at least 67 percent of the sessions. In the waiting list control group ten subjects completed at least 67 percent of the program. Of the remaining four subjects, three subjects could not attend the program at the last minute due to job commitments out of town, while one subject fell outside the criterion for the program and required intensive individual counseling; although this subject began the program, only half the sessions were attended.

The subjects who participated in this study were 3 males and 20 females, and ranged in age from 18 to 60 years. They were referred to the program by doctors for having low stress tolerance and experiencing high levels of stress and anxiety in their lives.

Apparatus. All sessions were held in a group therapy room. The equipment required for the program included an overhead projector, a tape recorder, a blackboard and one large table. Teaching aids included overhead sheets, an assertiveness training tape, photocopied handouts for each session and a relaxation training tape for each client.

Instruments. Holmes and Rahe Life Events Checklist: The Life Events Checklist developed by Holmes and Rahe in 1967 tallies the positive and negative life events each client has experienced during the last 12 months. It places a value on the amount of resultant stress the client has experienced. It is used as a predictor for stress-related illness (see Appendix A). Life events are totalled for their stress rating. A total score in the range form zero to 150 indicates that stressful life events have a low impact on the subject; a score in the range of 150 to 300 indicates that life events have a moderately stressful effect on the subject's life; a score

above 300 indicates that the subject is currently going through a very stressful period in terms of the number and intensity of life events being experienced and the susceptibility to illness is high if this level of stress is maintained.

Beck Depression Inventory: This Depression Inventory was developed by Aaron T. Beck in 1978. It has been used with the author's special permission (see Appendix B). It assesses the seriousness of a client's state of depression as compared with the normal population. The test is scored adding up the highest valued answer in each group. A score from zero to nine coincides with there being no indication of depression; a total score that lies between 10 and 15 indicates a mild level; if the score falls between 16 and 19, a mild to moderate level of depression is indicated; 20 to 29 shows a moderate to severe level; a score between 30 and 63 indicates a severe level of depression.

Rathus Assertiveness Schedule: The Rathus Assertiveness Schedule is a 30-item self-report test of assertiveness that has been shown to be valid with both normal and psychiatric populations (see Appendix C). The average score

falls between zero and +10 with scores potentially ranging from -90 to +90. Most people, if assertive, score somewhere between -15 and +34. An increase in score of 20 points from one testing session to another is considered significant.

Self Concept Scale: A Self Concept Scale was used from Girdano and Everly (1979). It assesses how an individual perceives oneself in terms of having a healthy self concept (see Appendix D). In this scale, lower scores represent higher levels of self concept. A score from 10 to 19 shows a strong self concept; a score from 20 to 25 indicates a moderate level; a score that lies between 26 and 40 coincides with a poor self concept.

Self-Evaluation Questionnaire (Form Y): Also known as the State-Trait Anxiety Inventory, this test was developed by Spielberger in 1977 (see Appendix E). This test measures one's general attitude (trait anxiety) as well as one's situational anxiety level (state anxiety). The test results are recorded in percentiles.

Quality of Life Checklist: The Quality of Life Checklist was designed by Theodore

H. Blau (1977) as a measure of the client's current satisfaction with life in a variety of basic areas (see Appendix F). Answers are given on a five-point scale with the client's state of distress measured concurrently. If not all the areas apply to a subject, scores are prorated to compensate for the lost scores. When all eleven items are responded to, a score above 38.5 indicates a fairly successful quality of life condition; a score falling between 27.5 and 38.5 indicates a painful but adequate quality of life; a score in the range of 11 to 27.5 shows a lot of suffering with an immediate need to seek help; a score below 11 is usually found with institutionalized mental patients.

Procedure. A letter was sent to each of approximately 90 doctors in the City of Thunder Bay, Ontario, explaining the Stress and Lifestyle Management Group Therapy program being offered and requesting referrals (see Appendix G). A special referral form was designed for this purpose (see Appendix H). General practitioners, psychiatrists and some doctors of Internal Medicine received a

letter. A follow-up letter with additional referral forms was sent after three weeks in order to remind doctors of the program and the required referrals (see Appendix I). Completed referral forms were sent to the Psychology Department of McKellar General Hospital in Thunder Bay. There was no limit set for the amount of referrals that would be received.

After the referrals were received, clients were contacted and were given individual intake interviews. Each interview included questions about demographic details, lifestyle, possible causes and symptoms of stress, and a limited medical history was obtained. At the end of the interview the expectations the client had of the program were discussed briefly. The importance of attendance was stressed, and any client feeling that this commitment could not be upheld was scheduled for individual therapy and taken out of the program. The time for a group testing session was then confirmed with the client.

Three group testing sessions were planned in order to accomodate all clients. The testing included the Holmes and Rahe Life Events Checklist,

Beck Depression Inventory, Rathus Assertiveness Schedule, Self Concept Scale, State-Trait Anxiety Inventory, Quality of Life Checklist, a test of the client's current knowledge in the area of Stress and Lifestyle Management, and the signing of a consent form (see Appendix J). Clients who were not considered suitable for the program were those who scored in the "severely depressed" range (a total score between 30 and 63) as measured by the Beck Depression Inventory.

Clients were then randomly divided into the experimental and control groups. Clients in the Waiting List Control Group were told that the response received for such a group was overwhelming and that as a result the Stress and Lifestyle Management groups were filled to capacity. They were told that they would be placed on a waiting list to begin the program in two months. Clients in the experimental group were divided into two groups according to the time of day that they could meet, either during the day or early evening. These programs began the following week. Appendix K contains an outline of the program. The sessions lasted from one to one and a quarter hours, with one

session per week for six weeks. Following the program, after a two week waiting period during which there was no contact with the clients, all subjects both in the experimental and control groups completed the test battery again. In addition, a program evaluation was filled out (see Appendix L); the evaluations were not signed and remained anonymous. The control group then completed the program. The same therapist taught all of the sessions to all of the groups.

An individual follow-up counseling session was provided for each client. During this session the conversation centred on the client's personal application of the material learned. The need for further counseling was assessed by the client's perception of need as well as by the results compiled from the testing. Following the final interview with each client, a report was written to the referring doctor notifying the doctor of the progress which was made with the client as well as whether follow-up counseling would be deemed beneficial.

Results

The data from this study were organized into a 2 by 2 Mixed Analysis of Variance (ANOVA) design. The between factor was the groups, either experimental or control, and the within factor was the pre-treatment and post-treatment testing settings. Seven separate ANOVA's were performed, one on each of the tests administered. Table 1 illustrates the means and standard deviations for each test for the experimental group while Table 2 illustrates them for the control group.

The results of the first ANOVA, performed on the Life Events Checklist, indicate that the mean scores for the experimental and control groups did not differ significantly in the pre-treatment or post-treatment testing sessions. There was no significant interaction (see Table 3).

The ANOVA performed on the Beck Depression Inventory resulted in a significant interaction with $F(1,18)=6.22$, $p<.025$, (see Figure 1). This interaction was analyzed with a t-test comparison of the pre-treatment means and a t-test comparison of the post-treatment means. The results indicated

Table 1.

Means and Standard Deviations for

Experimental Group (N=13)

EXPERIMENTAL GROUP	PRE-TREATMENT		POST-TREATMENT	
	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
LIFE EVENTS CHECKLIST	256.60	147.38	216.20	115.34
BECK DEPRESSION INVENTORY	15.40	8.59	7.00	5.12
RATHUS ASSERTIVE-SCHEDULE	-20.40	19.95	-10.20	30.52
SELF CONCEPT SCALE	25.50	4.90	22.40	4.12
STATE ANXIETY INVENTORY	82.30	15.56	56.90	16.35
TRAIT ANXIETY INVENTORY	89.40	10.73	72.40	17.59
QUALITY OF LIFE CHECKLIST	32.60	9.58	36.30	6.43

Table 2.

Means and Standard Deviations for

Control Group (N=10)

CONTROL GROUP	PRE-TREATMENT MEAN	PRE-TREATMENT STANDARD DEVIATION	POST-TREATMENT MEAN	POST-TREATMENT STANDARD DEVIATION
LIFE EVENTS CHECKLIST	300.70	113.69	302.00	127.00
BECK DEPRESSION INVENTORY	11.20	6.03	9.20	5.20
RATHUS ASSERTIVE-NESS SCHEDULE	-5.00	27.14	-4.20	29.48
SELF CONCEPT SCALE	23.60	4.58	22.30	4.50
STATE ANXIETY INVENTORY	59.50	26.20	55.20	16.24
TRAIT ANXIETY INVENTORY	75.00	21.89	71.80	27.94
QUALITY OF LIFE CHECKLIST	33.90	5.07	36.30	4.81

Table 3.

Life Events Checklist

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	42185.1	1	42185.10	1.4593	N.S.
ERROR	520330.8	18	28907.27		
TREATMENT (PRE VS. POST)	3822.1	1	3822.10	1.2200	N.S.
INTERACTION (GROUP BY TREATMENT)	4347.1	1	4347.10	1.3876	N.S.
ERROR	56391.3	18	3132.85		

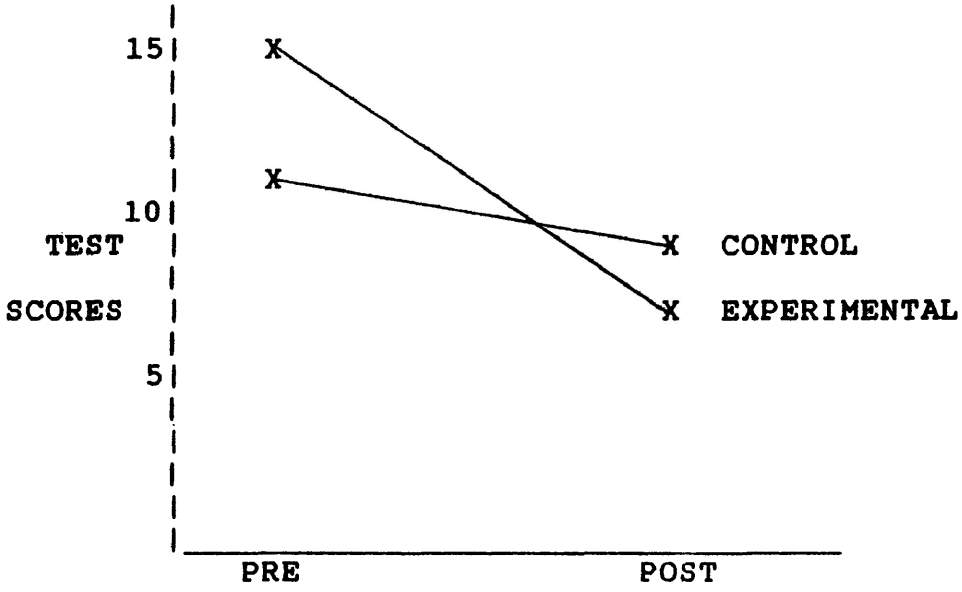

Figure 1.

Beck Depression Inventory

Group by Treatment Interaction

that the mean scores of the groups differed significantly both before the introduction of the program and after the treatment was administered. One main effect was significant with the pre-treatment means across groups being significantly higher than the post-treatment means across groups; $F(1,18)=16.43$, $p<.001$ (see Table 4).

The Rathus Assertiveness Schedule ANOVA resulted in no significant main effects or interactions. This would indicate that the groups did not differ significantly either in the pre-treatment or post-treatment testing settings (see Table 5).

For the Self Concept Scale, the ANOVA showed a significant result in the pre vs. post treatment conditions across groups; however, the interaction was not significant. Overall the groups showed less self confidence in the pre-treatment condition than in post-treatment (see Table 6).

The ANOVA for the anxiety scale which measured state anxiety had a significant interaction with $F(1,18)=4.70$, $p<.05$ (see Figure 2). By inspection of the means and standard deviations of the post-treatment testing compared with the

Table 4.

Beck Depression Inventory

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	10.0	1	10.0	0.1531	N.S.
ERROR	1175.4	18	65.3		
TREATMENT (PRE VS. POST)	270.4	1	270.4	16.4277	<.001
INTERACTION (GROUP BY TREATMENT)	102.4	1	102.4	6.2211	<.025
ERROR	296.2	18	16.46		

Table 5.

Rathus Assertiveness Schedule

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	1155.625	1	1155.625	0.8297	N.S.
ERROR	25069.850	18	1392.769		
TREATMENT (PRE VS. POST)	308.025	1	308.025	4.1319	<.10
INTERACTION (GROUP BY TREATMENT)	225.625	1	225.625	3.0266	<.10
ERROR	1341.850	18	74.547		

Table 6.

Self Concept Scale

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	10.0	1	10.00	0.2753	N.S.
ERROR	653.9	18	36.33		
TREATMENT (PRE VS. POST)	48.4	1	48.40	10.1895	<.01
INTERACTION (GROUP BY TREATMENT)	8.1	1	8.10	1.7053	N.S.
ERROR	85.5	18	4.75		

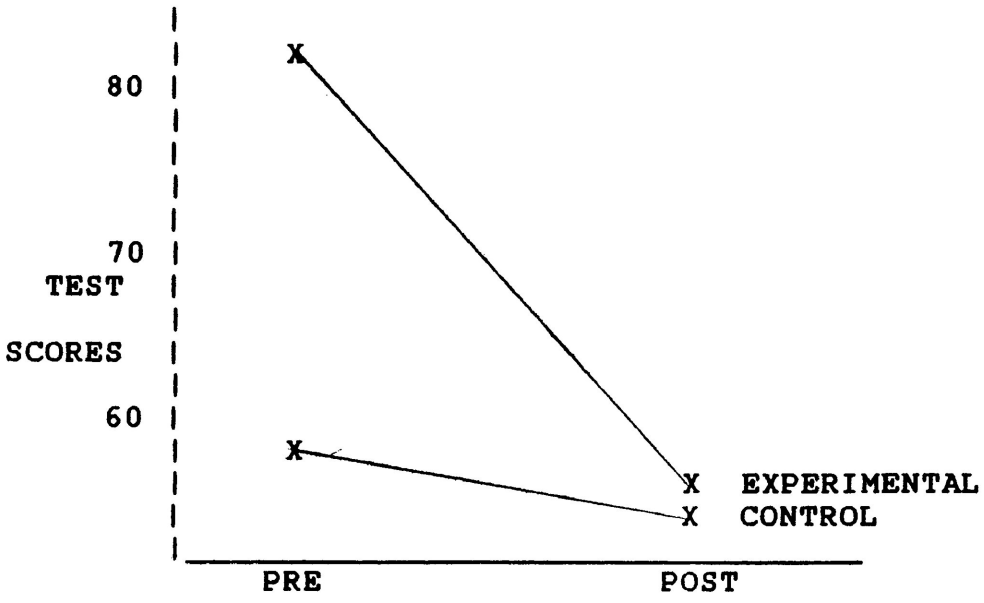

Figure 2.

State Anxiety Inventory

Group by Treatment Interaction

pre-treatment testing, the level of anxiety of the control group stayed well within one standard deviation while the level of anxiety of the experimental group dropped almost two standard deviations, (see Table 7). These results were analyzed using a simple t-test comparison of the pre-treatment scores for the two groups. The result showed that the groups differed significantly on levels of state anxiety before the treatment was administered. The pre-treatment and post-treatment means did differ significantly across groups; $F(1,18)=9.32$, $p<.01$.

The ANOVA results were similar when trait anxiety was measured, with a significant interaction, $F(1,18)=4.80$, $p<.05$ (see Figure 3). The t-test analysis of the pre-treatment means also resulted in a significant difference between the two groups initially. There was also a significant difference between means in the pre-treatment versus post-treatment conditions with $F(1,18)=10.29$, $p<.01$ (see Table 8).

The last ANOVA was performed on the Quality of Life Checklist. Again the only significant difference was that the overall means before the

Table 7.

State Anxiety Inventory

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	1500.62	1	1500.62	3.0432	<.10
ERROR	8875.85	18	493.10		
TREATMENT (PRE VS. POST)	2205.22	1	2205.22	9.3195	<.01
INTERACTION (GROUP BY TREATMENT)	1113.03	1	1113.03	4.7038	<.05
ERROR	4259.25	18	236.62		

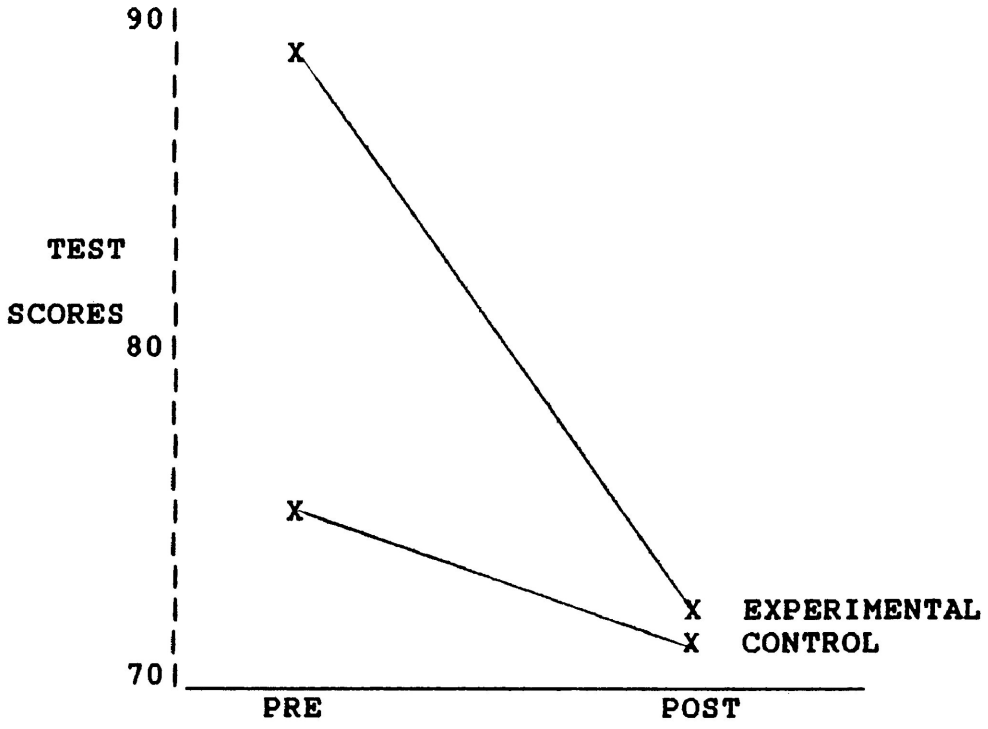

Figure 3.

Trait Anxiety Inventory

Group by Treatment Interaction

Table 8.

Trait Anxiety Inventory

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	562.5	1	562.50	0.7569	N.S.
ERROR	13376.6	18	743.14		
TREATMENT (PRE VS. POST)	1020.1	1	1020.10	10.2936	<.01
INTERACTION (GROUP BY TREATMENT)	476.1	1	476.10	4.8042	<.05
ERROR	1783.8	18	99.10		

groups were treated was significantly different from the means after the groups were treated, with $F(1,18)=6.11$, $p<.025$. There was no significant interaction (see Table 9).

The results of the program evaluation indicated that clients felt they benefited quite a bit from the program, averaging a score of 3.8 between the answers 3 - 'yes' and 4 - 'quite a bit'. The second question evaluated the difficulty of the material being covered, which was found to be easy to understand. An average of 4.6 was attained in the third question falling between 4 - 'most of the material was understandable' and 5 - 'material was presented very clearly'. In response to the fourth question, clients felt that all areas of Stress and Lifestyle Management that were expected were covered in the program. In some cases, subjects would have liked some areas covered in greater depth, as was evaluated by question 5. Eight percent of the subjects wanted more information on diet and exercise; 15 percent in the areas of how to detect stress, on relaxation, and on time management; and 31 percent on coping methods and assertiveness training. Question 6 concluded that 84.6 percent of

Table 9.

Quality of Life Checklist

Analysis of Variance

SOURCE	SS	df	MS	F	p
GROUP (EXPERIMENTAL VS. CONTROL)	4.2	1	4.22	0.0558	N.S.
ERROR	1363.25	18	75.74		
TREATMENT (PRE VS. POST)	93.02	1	93.02	6.1056	<.025
INTERACTION (GROUP BY TREATMENT)	4.22	1	4.22	0.2773	N.S.
ERROR	274.25	18	15.24		

clients were satisfied with the program length while 15.4 percent would have liked the program to be more than two weeks longer. Sixty percent of clients were satisfied with the amount that they participated actively in the program while 40 percent would have liked to participate more. All subjects felt they had received a sufficient amount of personal attention throughout the program (question 8) and all subjects felt that the therapist was both very approachable and pleasant (question 9). In the final question, 100 percent of the clients confirmed that they would recommend the program to a friend or relative.

Discussion

The Stress and Lifestyle Management Group Therapy Program offered to clients in this study appears to have alleviated symptoms of depression and anxiety of the subjects who were treated as compared to subjects in the waiting list control group. This is a valuable result since the emotional responses to high levels of depression and anxiety can be severe. High levels of depression can lead to suicide while high levels of anxiety may be the cause of a nervous breakdown.

A possible interpretation of the significant interactions found for the Beck Depression Inventory and the Self Evaluation Questionnaire could be treatment expectancy effects, (see Lazarus, 1985), where the client strives to please the therapist with improved scores on the tests in the post-treatment setting. It appears, however, that this fact cannot be used to interpret the significant test results as it is not seen globally across the different measures but only with the depression and anxiety scales, and so would likely not be a major contributing factor.

For the depression inventory, the interaction is meaningful indicating that the level of depression in the experimental group subjects decreased significantly more than that in the control group subjects. This result can be interpreted to mean that the Stress and Lifestyle Management program is effective in reducing the level of depression in subjects.

For the anxiety inventory results, there is some difficulty in interpreting the interaction as a treatment effect, since subjects compared across the two groups differed significantly in the pre-treatment scores. This significant interaction could be explained, in such a case, by the theoretical concept that statistically the scores have a tendency to regress towards the mean. One difficulty with this interpretation, however, is that this regression is not seen in a change in scores in the control group, but only in the experimental group. The other point which must be raised and which will be mentioned later in this discussion is the possibility that the groups do not represent random samples, and this would explain the initial variability in the test scores.

For the Self Concept Scale and Quality of Life Checklist, subjects improved overall regardless of whether they were treated or not. This result was expected for some of the scales of measure since the passage of time alone can be therapeutic. Problems in one's life can be reduced as things sort themselves out with time. The lack of change for the Life Events Checklist was expected since it measures a fairly constant factor of stressful events occurring in one's life over one year. The lack of results for the Rathus Assertiveness Schedule was not expected, however, and it is felt that this might be attributed to the length of time people naturally take to develop assertiveness skills, a period of time which would exceed the two weeks allowed during the waiting period after the program, before the subjects were retested.

The other possible reason for not getting significant results could be a function of the small sample size, and subsequently making it less likely that a random sample is acquired. In such a case, subjects in the control group could conceivably be more assertive and less stressed overall than the subjects in the experimental group. This would

result in the lack of significant improvement as shown by the test scores of the experimental group subjects over those in the control group. This could also apply to the results of the anxiety scale, in which the experimental group would be significantly more anxious than the control group because of a lack of random sampling due to a small sample size.

For the program evaluations which were filled out at the end of the program, basic satisfaction with the quality of the course was communicated. For those clients who desired a longer program or would have liked some areas covered in greater depth, two options were left open to them; additional material was discussed either in individual counseling sessions following the program, or in a Lifestyle Management group designed as a follow-up therapy. This Lifestyle Management group emphasized an interactive and participative atmosphere rather than a didactive teaching approach. This group would therefore also be more geared towards the 40 percent of clients who had expressed the desire to have participated more actively during the program.

During the individual follow-up interviews for

all clients, a number of relevant points came up for discussion, which become advantages to running such a program. The two issues that arose most frequently were, first of all, the importance of being educated about stress. Subjects felt that after the program they knew far more about stress, its implications, its far reaching effects and a variety of coping techniques. In general they felt better prepared to handle their daily stresses, and better able to cope with themselves and with others as a result of this knowledge. The second aspect of the program that was found beneficial was that it taught subjects to become introspective, to understand themselves better and the problems in their interactions with others. The result of this was an increased ability of clients to understand their unique problems, leading again to a more effective management of stress.

A third point was noted by a few clients who found it difficult initially to open up to the therapist. These clients were able to develop an effective relationship with the therapist as a result of the group interaction during the program. Such clients could potentially use up hours of the

therapist's time on a one-to-one basis in an effort to find a way to express their problems which they may not understand to begin with, and to develop enough trust in the therapist to divulge this personal information. Thus such a program could provide an effective manner in which to "break the ice" with the client and provide the basis for a trusting and professional relationship.

It would be very beneficial in a study such as this one to measure the longterm psychological benefits of attending a Stress and Lifestyle Management Program. This could be achieved by retesting subjects after predetermined periods of time, anywhere from 3 months to a year. No comparison could be made with the control group since the subjects must be treated for ethical reasons. However it would be a relevant result if subjects still show reductions in levels of depression, anxiety, and increases in levels of self concept, quality of life, and perhaps also assertiveness in this extended time frame.

Further research could also include comparing test scores of subjects who participate in the Lifestyle Management group, the follow-up to the

Stress and Lifestyle Management group, with those who do not. Or perhaps to run Stress and Lifestyle Management Groups using different approaches, such as didactic, self-help, or interactive in order to make a comparison of these approaches would prove useful. This could indicate what would be the most beneficial style for future groups to endorse.

In conclusion, the Stress and Lifestyle Management Program appeared to be beneficial to the majority of clients within the limitations of the study. It is clear from the results that the level of depression of subjects who attend such a program decreases significantly more than that of subjects who do not attend the program. Due in part to the small sample size, subjects in the two groups differed on some of the measures in the pre-treatment testing setting. In combination with the limitations of this type of research, such as the role of the client's expectancies of the outcome, there is a restriction on how much can be concluded from the results. Nevertheless, what cannot be overlooked for its importance are the clients' self-reported feelings of having benefited from the program and reports of being able to cope

more effectively with the stress in their lives.

A Stress and Lifestyle Management group therapy program such as the one that was run in this study, with some minor modifications, is currently incorporated into a Community Mental Health Program being run out of McKellar General Hospital, Thunder Bay, Ontario, and supported by a grant from the Ministry of Health, Ontario.

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APPENDIX A

HOLMES AND RAHE LIFE EVENTS CHECKLIST

Name_____ Date_____

Below are listed events which occur in the process of living. Place a check in the left-hand column for each of those events that have happened to you during the last 12 months.

	Life Event	Point Values
_____	Death of spouse	100
_____	Divorce	73
_____	Marital separation	65
_____	Jail term	63
_____	Death of close family member	63
_____	Personal injury or illness	53
_____	Marriage	50
_____	Fired from work	47
_____	Marital reconciliation	45
_____	Retirement	45
_____	Change in family member's health	44
_____	Pregnancy	40
_____	Sex difficulties	39
_____	Addition to family	39
_____	Business readjustment	39
_____	Change in financial status	38
_____	Death of a close friend	37
_____	Change to different line of work	36
_____	Change in number of marital arguments	35
_____	Mortgage or loan over $10,000	31
_____	Foreclosure of mortgage or loan	30
_____	Change in work responsibilities	29
_____	Son or daughter leaving home	29
_____	Trouble with in-laws	29
_____	Outstanding personal achievement	28
_____	Spouse begins or stops work	26
_____	Starting or finishing school	26
_____	Change in living conditions	25

	Life Event	Point Values
_____	Revision of personal habits	24
_____	Trouble with boss	23
_____	Change in work hours, conditions	20
_____	Change in residence	20
_____	Change in schools	20
_____	Change in recreational habits	19
_____	Change in church activities	19
_____	Change in social activities	18
_____	Mortgage or loan under $10,000	17
_____	Change in sleeping habits	16
_____	Change in number of family gatherings	15
_____	Change in eating habits	15
_____	Vacation	13
_____	Christmas season	12
_____	Minor violations of the law	11

Score: _____

After checking the items above, add up the point values for all of the items checked.

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APPENDIX B

BECK DEPRESSION INVENTORY

CENTRE FOR COGNITIVE THERAPY,
Room 602, 133 South 36th Street,
PHILADELPHIA, PA 19104

APPENDIX C

RATHUS ASSERTIVENESS SCHEDULE

Name:_____ Date:_____

Indicate how descriptive of you each item is by using the code given below.

3 very much like me
2 rather like me
1 slightly like me
-1 slightly unlike me
-2 rather unlike me
-3 very unlike me

_____ 1. Most people seem to be more aggressive and assertive than I am.

_____ 2. I have hesitated to make or accept dates because of "shyness."

_____ 3. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter or waitress.

_____ 4. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured.

_____ 5. If a salesman has gone to considerable trouble to show me merchandise that is not quite suitable, I have a difficult time saying "No."

_____ 6. When I am asked to do something, I insist upon knowing why.

_____ 7. There are times when I look for a good, vigorous argument.

_____ 8. I strive to get ahead as well as most people in my position.

_____ 9. To be honest, people often take advantage of me.

_____ 10. I enjoy starting conversations with new acquaintances and strangers.

_____ 11. I often don't know what to say to attractive persons of the opposite sex.

_____ 12. I will hesitate to make phone calls to business establishments and institutions.

_____ 13. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews.

_____ 14. I find it embarrassing to return merchandise.

_____ 15. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance.

_____ 16. I have avoided asking questions for fear of sounding stupid.

_____ 17. During an argument I am sometimes afraid that I will get so upset that I will shake all over.

_____ 18. If a famed and respected lecturer makes a statement that I think is incorrect, I will have the audience hear my point of view.

_____ 19. I avoid arguing over prices with clerks and salesmen.

_____ 20. When I have done something important or worthwhile, I manage to let others know about it.

_____ 21. I am open and frank about my feelings.

_____ 22. If someone has been spreading false and bad stories about me, I see him (her) as soon as possible and "have a talk" about it

_____ 23. I often have a hard time saying "No."

_____ 24. I tend to bottle up my emotions rather than make a scene.

_____ 25. I complain about poor service in a restaurant and elsewhere.

_____ 26. When I am given a compliment, I sometimes just don't know what to say.

_____ 27. If a couple near me in a theater or at a lecture were conversing rather loudly, I would ask them to be quiet or to take their conversation elsewhere.

_____ 28. Anyone attempting to push ahead of me in a line is in for a good battle.

_____ 29. I am quick to express an opinion.

_____ 30. There are times when I just can't say anything.

APPENDIX D

SELF CONCEPT SCALE

Name_____ Date_____

Choose the alternative that best summarizes how you generally behave, and place your answer in the space provided.

_____ . When I face a difficualt task, I try my best and will usually succeed.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ . I am at ease when around members of the opposite sex.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ . I feel that I have a lot going for me.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ . I have a very high degree of confidence in my own abilities.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

. I prefer to be in control of my own life as opposed to having someone else make decisions for me.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ . I am comfortable and at ease around my superiors.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ I am often overly self-conscious or shy when among strangers.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ . Whenever something goes wrong, I tend to blame myself.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ . When I don't succeed, I tend to let it depress me more than I should.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

_____ 10. I often feel that I am beyond helping.

(a) Almost always true (b) Often true
(c) Seldom true (d) Almost never true

Scoring: 1-6: a = 1, b = 2, c = 3, d = 4
7-10: a = 4, b = 3, c = 2, d = 1 Score: ____

Girdano & Everly, 1979

APPENDIX E

SELF EVALUATION QUESTIONNAIRE

Spielberger, Charles D. (1977)
Self-evaluation Questionnaire (Form Y)

Consulting Psychologists Press,
577 College Avenue,
Palo Alto, California 94306

APPENDIX F

QUALITY OF LIFE CHECKLIST

Name_____ Date_____

For each activity below, circle the appropriate number which matches your experience most accurately.

	1	2	3	4	5
WORKING	Work is highly dissatisfying and meaningless		Adequate		Work is highly satisfying and results in a sense of accomplishment
LEISURE	Almost no time for leisure activities or avoidance of leisure activities		Adequate		Frequent and satisfying involvement in a variety of leisure time activities
SLEEPING	Frequent sleep disturbances, insomnia, distress or bad dreams		Adequate		The sleep cycle is regularly full eg. 7-10 hours, and refreshing
CONSUMPTION (Eating/ Drinking)	Regular digestive or drinking problems such as poor appetite, obesity, overindulgence or addictions eg. alcohol, pills		Adequate		Appetite is almost always excellent, and over-indulgence is rare, no addictions
SOCIAL CONTACTS	Rare contact with others or highly dissatisfying contact with others leading to the experience of loneliness and separation		Adequate		Regular and satisfying contact with others, leading to a feeling of belonging and fulfillment

	1	2	3	4	5
EARNING	No compensation, or unemployment		Adequate		Compensation is regularly received and in line with earning potential
PARENTING	Regular antagonism, conflict and arguments with children; a sense of failure as a parent; no involvement in parenting role		Adequate		Warm, friendly, disciplined interactions with children leading to a satisfying sense of parenting
LOVING	Absence of emotional caring for others, or emotional bonds which are not mutual		Adequate		Warm, caring, mutual emotional bonds with several people
SEXUALITY	Sexual interactions are avoided or are highly unpleasurable		Adequate		Warm, pleasurable, sexual interactions are usual and frequent
ENVIRONMENT	Thorough and active dislike of surroundings leading to a feeling of wanting to escape		Adequate		Enjoyment of surroundings with a sense of health and well-being
SELF-ACCEPTANCE	Dissatisfaction with self, a regular wish to change or be someone else, self-destructive habits		Adequate		Satisfaction with self in terms of both strengths and weaknesses, no self-destructive habits, liking oneself as a person

APPENDIX G

INITIAL LETTER TO DOCTORS

McKellar General Hospital
325 S. Archibald Street, Thunder Bay, Ontario P7E 1G6. Tel (807) 623-5561

September 26, 1985

RE: STRESS AND LIFESTYLE MANAGEMENT GROUP THERAPY PROGRAM

Dear Doctor:

Under the auspices of Dr. W. T. Melnyk, I will be offering one (1) Stress and Lifestyle Management Group Therapy Course. The course will take place at the Psychology Department of McKellar General Hospital in Paterson Hall, at the corner of Arthur and Archibald Streets. There will be no fee to the participant. The duration of this course will be 6-8 weeks with a 2-4 week follow-up period. Specific dates and times will be set at the convenience of the clients.

Stress management will include relaxation training, cognitive therapy and assertiveness training. Through lifestyle management, an incorporation of time management, consciousness of diet, physical fitness, and other aspects important to a healthy lifestyle will be attempted.

This letter is being sent to you requesting referrals. Since this is a group therapy program, no person referred should require intensive individual counselling. Please do no refer any person who is chronically depressed or whom you feel would have difficulty in benefitting from a didactic teaching approach. All cases referred should show low stress tolerance and high anxiety as the primary symptoms.

Referral forms are enclosed for your use. Any referrals made on other forms will not be considered for this program but will be processed in the usual manner, scheduled for individual therapy, and will have the usual waiting period of 3 or more months.

Your prompt response would be greatly appreciated as it is my endeavour to begin this program at the earliest possible date. As this program is being offered on a one time basis only, I will not be able to accept any referrals that might arrive after December 1st, 1985.

Thank you for your cooperation in this matter.

Sincerely,

C. Insley

Cindy Insley, M. A. Candidate
Lakehead University

W. T. Melnyk, Ph. D.
Registered Psychologist
Department of Psychology
McKellar General Hospital

WTM/CI/mkb
Encls.

APPENDIX H

REFERRAL FORM

REFERRAL FORM

McKellar General Hospital
Psychology Department

STRESS AND LIFESTYLE
MANAGEMENT
GROUP THERAPY PROGRAM

DATE: _____

NAME: _____

ADDRESS: _____

_____

POSTAL CODE: _____

TELEPHONE: _____

DATE OF BIRTH: _____

REFERRING DOCTOR: _____

Is there any medical reason why this person would not be able to participate in minimally exerting exercises? _____

_____

Signature of Referring Dr._____

APPENDIX I

SECOND LETTER TO DOCTORS

McKellar General Hospital
325 S. Archibald Street, Thunder Bay, Ontario P7E 1G6, Tel.(807) 623-5561

October 24, 1985

Dear Doctor:

Please be reminded of the Stress and Lifestyle Management Group Therapy Program which will be starting shortly. Clients will be interviewed in a month and the program will begin during the first week in January.

Additional referral forms are enclosed and if more are needed, please contact the Psychology Department at McKellar or photocopy the ones enclosed.

Thank you kindly for your referrals.

Sincerely,

C. Insley

Cindy Insley, M.A. Candidate
Lakehead University

W. T. Melnyk, Ph. D.
Registered Psychologist
Department of Psychology
McKellar General Hospital

WTM/CI/mkb
Encls.

APPENDIX J

CONSENT FORM

CONSENT FORM

I, _____, am participating in a Stress and Lifestyle Management Group Therapy Program. I am assured as to the confidentiality of any personal information which I disclose to the therapist.

I hereby authorize the use of all records and personal data derived from this study for research purposes and publication, provided that there is no disclosure of my identity.

My signature below indicates that I have read and understood what is written here, and that I am free to ask questions concerning my participation in this research.

Signed _____

Dated _____

APPENDIX K

OUTLINE OF PROGRAM

STRESS AND LIFESTYLE MANAGEMENT GROUP THERAPY PROGRAM

Program Outline

Session 1 - overview of program

- define stress
    - include physiological reaction
    - include fight or flight response
    - stress is cumulative - disease and illness
- psychological or emotional symptoms
- physical symptoms that could result from stress
- explain how the way you think about an event affects the way you feel and behave
    - include self-talk
    - A-B-C-D-E theory of behavior (Ellis)
- relaxation training
    - why it is necessary to learn
    - reciprocal inhibition
    - skill, therefore needs to be practiced to acquire it
    - hand out tapes for home practice.

Session 2 - review material from previous session
- relaxation training - discuss applications
- self-talk a key to changing behavior
- irrational beliefs or thinking and cognitive distortions
- learn to recognize irrational thinking and cognitive distortions by understanding what your rights are as a person
- assertive rights
    - explain them
    - include building self-concept
- self awareness training
    - include self-monitoring chart and thought record
- if time allows talk briefly about exercise
    - tool for combatting stress
    - choose non-competitive sport suitable for 'me'

Session 3 - review material from previous session

- check up on relaxation tapes (still side 1)
- assertiveness training
    - discriminate between being unassertive, assertive and aggressive
    - prevent manipulation using techniques (session 4)
- exercise
    - start with session 2 material if not covered
    - check with doctor
    - aerobic exercising
    - benefits
    - tips to starting
- diet
    - inventory completed at home - review
    - result of poor habits
    - nutrition
    - food groups
    - sugar, salt, caffeine, vitamins
    - weight loss in later session

<u>Session 4</u> - review material from previous session

- follow-up on self-awareness training
    - problems? working? comments
- assertive skills
    - persistence
    - communication
    - coping with criticism
- time management
    - control and balance
    - overload
    - coping techniques
    - ideas on saving time

Session 5 - review material from previous session
- positive coping imagery
- thought stopping
- sleep - what it is
    - how to promote it

Session 6 - relaxation training - switch to side 2 of tape if comfortable with side 1
- review material from previous session
- leisure time
- tips on weight loss
- smoking - a few hints on quitting and what to expect

- alcohol - effects on body
  - hours it takes to burn off
- set up individual appointments

APPENDIX L

PROGRAM EVALUATION

STRESS AND LIFESTYLE MANAGEMENT

PROGRAM EVALUATION

Do you feel that you benefited from the program?

5	4	3	2	-
very much	quite a bit	yes	a little bit	not at all

. Was the material that was presented understandable or was it too difficult?

5	4	3	2	1
easy to understand	a bit difficult to understand	not too hard to understand	difficult to understand	couldn't understand it at all

. Was the material presented well or could it have been more understandable if it had been taught in a different way?

5	4	3	2	-
material was presented very clearly	most of the material was presented well	satisfactory	material could have been presented more clearly	material should have been taught differently altogether

. Was there any area of stress and lifestyle management that was not covered but which you were expecting?

_____ _____

_____ _____

. Were there any parts of the program which you would have liked to have seen covered more thoroughly?

___ assertiveness training

___ time management

___ how to detect stress in your life

___ diet and exercise

___ relaxation methods

___ coping methods, eg. positive coping imagery.

. Was the length of the program satisfactory or should less material have been covered in each session, making the program longer?

5	4	3	2	-
program should have been shorter	program was the right length	program should have been one week longer	program should have been two weeks longer	program should have been more than two weeks longer.

PROGRAM EVALUATION

. Were you satisfied with the amount that you participated actively in the sessions?

5	4	3	2	1
would have liked to participate much more	would have liked to participate a bit more	satisfactory	would have liked to participate less	didn't want to participate at all

Did you receive enough personal attention throughout the program?

___ Yes ___ No

. Was the therapist who led the sessions easily approachable and pleasant?

5	4	3	2	1
very approachable and pleasant	quite approachable and pleasant	satisfactory	not very approachable or pleasant	not approachable or pleasant at all

0. Would you recommend this program to someone else to take?

___ Yes ___ No

Additional Comments and/or Suggestions

CENTER FOR COGNITIVE THERAPY
AARON T. BECK, M. D., DIRECTOR
ROOM 602
133 SOUTH 36TH STREET
PHILADELPHIA, PA. 19104
TELEPHONE: (215) 243-4100

December 19, 1985

Cindy Insley
c/o Psychology Dept.
McKellar General Hospital
Thunder Bay, Ontario
Canada

Re: Permission Grant

Dear Ms. Insley:

Thank you for your recent letter. On behalf of Aaron T. Beck, M.D., I am responding to your interest in our scales and research.

For your convenience, I have enclosed a copy/copies of the most recent version(s) of the Beck Depression Inventory, as well as relevant scoring information.

You have Dr. Beck's permission for use and reproduction of the above-mentioned scale(s) for your research study. There is no charge for this permission.

In reciprocation, we would like you to send us a complimentary copy of any reports, preprints and publications in which our materials are used. These reports will be stored in our central library to serve as a resource for other researchers or clinicians. Please advise as to whether you agree to this arrangement.

We would also appreciate further information regarding your proposed research project.

If you have any questions, please feel free to contact me during business hours at (215) 898-4100. I will look forward to hearing from you.

Sincerely,

Liane Cohen

Liane Cohen
for Aaron T. Beck, M.D.
University Professor of Psychiatry
Director,
Center for Cognitive Therapy

SELF-EVALUATION QUESTIONNAIRE

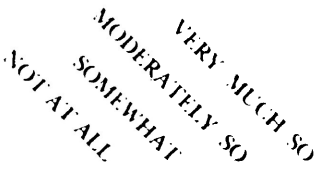
Developed by Charles D. Spielberger
in collaboration with
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs

STAI Form Y-1

Name _____ Date _____ S ____

Age _____ Sex: M ____ F ____ T ____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.



1. I feel calm
2. I feel secure
3. I am tense
4. I feel strained
5. I feel at ease
6. I feel upset
7. I am presently worrying over possible misfortunes
8. I feel satisfied
9. I feel frightened
10. I feel comfortable
11. I feel self-confident
12. I feel nervous
13. I am jittery
14. I feel indecisive
15. I am relaxed
16. I feel content
17. I am worried
18. I feel confused
19. I feel steady
20. I feel pleasant

Consulting Psychologists Press
577 College Avenue, Palo Alto, California 94306

SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name _____ Date _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant .		②	③	
22. I feel nervous and restless .		②	③	
23. I feel satisfied with myself .	①	②	③	
24. I wish I could be as happy as others seem to be		②	③	
25. I feel like a failure			③	
26. I feel rested	①	②	③	
27. I am "calm, cool, and collected"	①	②	③	
28. I feel that difficulties are piling up so that I cannot overcome them				
29. I worry too much over something that really doesn't matter				
30. I am happy				
31. I have disturbing thoughts				
32. I lack self-confidence				
33. I feel secure			③	④
34. I make decisions easily			③	④
35. I feel inadequate				④
36. I am content				
37. Some unimportant thought runs through my mind and bothers me				
38. I take disappointments so keenly that I can't put them out of my mind				
39. I am a steady person				
40. I get in a state of tension or turmoil as I think over my recent concerns and interests				

BECK INVENTORY

Name _____ Date _____

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. **Be sure to read all the statements in each group before making your choice.**

1
0 I do not feel sad.
1 I feel sad.
2 I am sad all the time and I can't snap out of it.
3 I am so sad or unhappy that I can't stand it.

2
0 I am not particularly discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that the future is hopeless and that things cannot improve.

3
0 I do not feel like a failure.
1 I feel I have failed more than the average person.
2 As I look back on my life, all I can see is a lot of failures.
3 I feel I am a complete failure as a person.

4
0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things the way I used to.
2 I don't get real satisfaction out of anything anymore.
3 I am dissatisfied or bored with everything.

5
0 I don't feel particularly guilty.
1 I feel guilty a good part of the time.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6
0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7
0 I don't feel disappointed in myself.
1 I am disappointed in myself.
2 I am disgusted with myself.
3 I hate myself.

8
0 I don't feel I am any worse than anybody else.
1 I am critical of myself for my weaknesses or mistakes.
2 I blame myself all the time for my faults.
3 I blame myself for everything bad that happens.

9
0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10
0 I don't cry any more than usual.
1 I cry more now than I used to.
2 I cry all the time now.
3 I used to be able to cry, but now I can't cry even though I want to.

11
0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.

12
0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.

13
0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.

14
0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

15
0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16
0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17
0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18
0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19
0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds. I am purposely trying to lose weight
2 I have lost more than 10 pounds. by eating less. Yes_____ No_____
3 I have lost more than 15 pounds.

20
0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think about anything else.

21
0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.