EFFECTIVENESS OF A STRESS REDUCTION TRAINING PROGRAM FOR WOMEN

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

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By

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The problem of this study was to determine the effectiveness of a stress-reduction training program for women. The purposes were (1) to compare the training program with a group counseling program, (2) to determine the effect of the selected personality characteristics of field dependence, perceived anxiety, and anxiety proneness on perceived stress, and (3) to provide counselors with information concerning the reduction of stress in women.

The study employed three groups consisting of six volunteer women in each group. The groups were a stress-reduction training group, a support-counseling group, and a no-treatment control group. All groups were administered the *Life Experiences Survey (LES)*, the *State-Trait Anxiety Inventory (STAI)*, the *Group Embedded Figures Test (GEFT)*, and the *Self-Evaluation Questionnaire* prior to treatment.

Following the pretesting, the training and counseling groups met for two hours, once a week, for a period of eight weeks. The stress-reduction training group followed a specific format, designed to teach women how to assume control over their stress responses. The counseling group followed a non-specific discussion format.

At the conclusion of treatment, all three groups were re-administered the *LES*. The *LES* adjusted post-test means were compared through analysis of covariance to determine differences in stress reduction across all three groups. Multiple regression analysis was used to determine the
relationship of field dependence, perceived anxiety, and anxiety proneness (as measured by the STAI and GEFT) to the pretest level of stress. The .05 level of significance was used for all hypotheses.

A significant positive correlation was found between anxiety proneness and perceived stress. The three groups did not differ with respect to post-test level of perceived stress.
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One of the current and growing concerns of women is the issue of stress. Kinzer (1979), in her popular book *Stress and the American Woman*, discusses the rapidly changing conditions that create stress for women in our society. Among the stressful conditions that Kinzer details are entering the workforce, competing in a male-dominated society, experiencing role conflict, maintaining a home, and rearing children. Women who face such conditions must learn to cope with the resulting stress or risk the effects of unresolved stress, including physical and mental illness.

Stress has been a concern of researchers since the turn of the century (Meyer, 1951). Interest in stress and its effects roughly coincides with this nation's expansion of industrialization. Rapid industrialization resulted in a highly mobile society and, for some individuals, disorganization of the family, disruption of interpersonal relationships, and a loss of a sense of belonging (Wolf and Goodell, 1968).

Selye (1956), an early stress researcher, has described stress as an inevitable but unhealthy by-product of modern living. The task of the individual, he has asserted, is not to avoid stress, but to adapt successfully to stress.

Unfortunately, the human response to the stress of living has often been negative. Holmes and Rahe (1967), when studying the relationship
between stressful life events and the development of physical and mental illness, found the incidence of heart attacks, diabetes, ulcers, cancer, and hypertension increased proportionally with an increase in the number of life stressors. Other research has shown that stress exacerbates psychological disorders such as depression, suicide, alcoholism, and sexual dysfunction (Brown and Harris, 1978; Wright, 1975; Petrich and Holmes, 1977; Holmes and Rahe, 1967).

In spite of the research evidence of the deleterious effects of stress, however, relatively little is known about how life stress and mental and physical illness are related for women (Makosky, 1980). Yet, women continue to be diagnosed and treated for depression in greater numbers than men in all socio-economic groups in this country (Guttentag, Salasin, and Belle, 1980).

For a more thorough understanding of women and stress, it is necessary to understand both women and men and their individual responses to stress, as well as the life events which cause stress responses (Antonovsky, 1979). As Appley and Trumbell (1977) have stated, different individuals may respond to the same set of stressors in very different ways. Furthermore, as Sturdivant (1980) has asserted, women may experience the same life stressors as men, yet have markedly different responses.

This individuality of response to stress is due to a number of intervening variables. According to McLean (1974), individual biology, early experiences, psychological expectations, and cultural influences are potent determinants of individual responses to stress. Clearly,
no individual man or woman has precisely the same response to stress.

Of all the variables which determine individual stress responses, the social experiences and expectations of women are undoubtedly the most influential in determining their responses to stress (Brown and Harris, 1978). Many women must cope with the societal expectation of handling multiple roles, worker, wife, and mother (Wright, 1975; Guttentag, Salasin, and Belle, 1980). Many others are expected to work at home for no pay, or outside the home for lower pay than men receive (Stellman, 1977). Such societal and self-expectations contribute to the low self-esteem of many women (Brown and Harris, 1980).

Women face the added disadvantage of being socialized to be passive, dependent, and indecisive (Manis, 1978). Many women respond to this socialization and these societal expectations in a "hopeless" and/or "helpless" manner (Brown and Harris, 1978; Guttentag, Salasin and Belle, 1980). This "hopeless" and "helpless" response contributes to the high incidence of both depressive and anxiety disorders among women (Brown and Harris, 1978; Garber, Miller and Abramson, 1980).

According to Garber, Miller and Abramson (1980), one characteristic that is common to both depressive and anxiety disorders is the feeling of loss of control. Anxiety occurs when an individual experiences an event or situation that blocks a desired goal, resulting in a loss of control. Depression, on the other hand, can be viewed as the failure to attain a desired goal, resulting in a giving up of control and hope (Garber, Miller and Abramson, 1980).
The anxiety and depression that result in women from this feeling of loss of control are often based on multiple-role demands. Multiple roles often create conflicts by imposing too many simultaneous demands on women in both traditional and non-traditional roles (Herman and Gyllstrom, 1977; Gray, 1980). While men, too, have multiple roles, traditionally they have not been expected to perform these roles simultaneously as are women (Hall, 1972).

Although some women are able to cope with multiple role demands successfully (Hall, 1972), many are attempting to cope without help, or at least without adequate help (Sturdivant, 1980). A thorough search of the literature revealed a paucity of data related to programs designed to help women cope with stress. The few programs mentioned in the literature included the following: Arnold and Parrott (1978) developed a training program to help female welfare recipients cope with the stress of job interviews, by teaching relaxation and communication techniques. In a workshop for women either returning to school or entering the workforce, Rice and Goering (1977) focused on increasing self-esteem and teaching time management and decision making. A third successful program, conducted by Manis (1978), consisted of a very specific training format designed to help women learn to make choices, become more assertive, and to give them emotional support before undertaking new competitive roles.

The literature also indicates some success with unstructured groups for women. Blaska (1976) found that women in higher education received needed support from other women through unstructured group contact. An added advantage of women's support groups is that they
provide guidance, mentors, and role models for women coping with stress (Kinzer, 1979).

Although these programs address some of the coping needs of some women, the programs are not adequate for stress reduction. There is an obvious need for effective interventions to help women with life stressors. In response to this need and for the purpose of this study, a stress reduction program for women was developed. This program, furthermore, is based on research indicating that stress and stress responses are multi-faceted and multi-dimensional (Tung, 1980).

The human response to stress may be conceptualized as a total involvement of the individual. Parrino (1979) has asserted that humans respond to stress cognitively, emotionally, and behaviorally, as well as physiologically. He has described the human response to stress as a continuous chain of responses. Initially, the individual, through cognitive processes, interprets an event or situation as threatening. Then the individual experiences a physiological response of the autonomic nervous system. Next, the individual acts or behaves as a result of these physical and cognitive responses. Finally, the individual experiences an emotional reaction to the original stressor based on personal cognition, physical reaction, and behavior.

Margolis and Kroes (1974) have posited five levels of job-related stress that are similar to Parrino's chain of responses. The first level consists of short-lived anxiety or tension. Often this anxiety response progresses to a second level which is a more chronic state of depression or fatigue. It is during this chronic state that the third level, comprised of physiological changes such as elevated blood pressure,
occurs. If these physiological responses are sustained over a period of time, the result may be physical illness, such as ulcers, coronary diseases, or other psychosomatic disorders typical of the fourth level. The fifth level of job-related stress is the behavioral response. It is at this level that there is often a job performance decrement.

It appears to be well established that stress responses are not just physiological or cognitive, but also psychological, social, and behavioral. In spite of this evidence, however, very few of the available stress reduction programs consider more than one or two facets of stress response.

The facet which has been considered by most programs has been the physiological response. Biofeedback and relaxation training have been employed both by researchers and practitioners to reduce anxiety levels (Pelletier, 1979; Katkin and Goldband, 1980). Other programs have incorporated physical activity and exercise as effective stress reducers (McLean, 1974; Morehouse and Gross, 1975).

Many programs, especially in recent years, have considered the cognitive response to stress in their design. As Folkman, Schaefer, and Lazarus (1979) have asserted, cognitive processes determine coping ability in stressful conditions. Rational Emotive Therapy, which focuses on the cognitive response, was used successfully in at least one occupational stress reduction program (Weinrach, 1980).

Though the cognitive and physiological facets of stress responses are represented in existing stress reduction programs, there is little
mention of social, behavioral, or psychological facets. Yet, unclear identities and uncertainty about roles were found to be potent social-psychological responses to stress (Wolf and Goodell, 1968). As Levine and Scotch (1970) have stated, stress itself is both a social and a psychological phenomenon. Seyle (1974) also has contended that stress reactions are at least partially psychological and emotional, and has recommended that each individual's emotional response to stress be monitored in order to aid coping with stress.

It is clear from the literature that an effective stress reduction program should address as many facets of stress as possible. Furthermore, to be effective for women, such a program should consider the feelings of anxiety or loss of control common to many women under stress (Garber, Miller and Abramson, 1980). Therefore, the stress reduction program developed for the purpose of this study is based on teaching women more effective control over their physical, emotional, behavioral, and cognitive responses to stress.

Evidence that there is a relationship between control, anxiety, and response to stress may be found in the literature. Wennerholm and Zale (1976) hypothesized that extremely internally controlled or externally controlled individuals would experience a greater incidence of stress-related disorders than individuals with only a moderate level of internal or external control. The researchers found that those individuals who were extremely externally controlled experienced more anxiety than others, while those who were extremely internally controlled experienced more physical disorders than others.
Houston (1972) found that when subjects had no control over a threatening, stressful situation, they experienced increased anxiety. When subjects were given control, they experienced physiological arousal. The subjects who performed the best, with the least anxiety and the most positive physiological response, were those who perceived their degree of control to be consistent with their perceived ability to assume control.

These findings clearly indicate that increasing an individual's sense of control while increasing awareness of what is controllable is an effective way to reduce stress. These data further suggest that the level of anxiety experienced influences the ability of an individual to learn this control.

This relationship of anxiety and stress reactions is further confirmed by research. Hodges (1967) found that high anxiety levels were positively correlated with the stressful conditions of failure and threat of shock. In addition, high anxiety levels measured by the State-Trait Anxiety Inventory were found to be highly correlated with the stress condition of final examinations (Sachs and Diesenhaus, 1969).

Problem

The present study was concerned with the reduction of stress in women and the development of a stress reduction training program. The purposes of the study were (1) to determine whether a stress-reduction training program can reduce stress in women; (2) to determine which of
certain selected characteristics, field dependence, perceived anxiety, and anxiety proneness, of women are predictive of treatment effectiveness; and (3) to provide counselors with information concerning interventions for reducing stress in women.

Limitations

All of the subjects included in this study were residents of a suburban city of north-central Texas, with a population of approximately 50,000. In addition, all of the subjects were women who were voluntarily participating.

Assumptions

It was assumed that the women participants reported honestly and accurately on all assessment instruments. In addition, it was assumed that the instruments were sufficiently valid for this study. Finally, it was assumed that the women in the treatment group were committed throughout the program to working toward stress reduction.

Review of Related Literature

The review of literature which is related to the present investigation is presented in four categories: (1) Adaptation to Stress; (2) Women and Stress; (3) Anxiety, Locus of Control, and Stress; and (4) Treatment of Stress. These categories represent the areas investigated by the present study.

Adaptation to Stress

Although too much negative stress can be psychologically and physically damaging, stress is also a necessary part of life. As Wolf and
Goodell (1968) have noted, stress is created by an individual in an effort to adapt to the demands of a changing environment. Such adaptation, of course, is necessary and can lead to growth as well as to destruction (Wolf and Goodell, 1968; Antonovsky, 1979).

Since stress is a product of living (Selye, 1956), the negative results of stress are due to each individual's interpretation of life events (Wolf and Goodell, 1968). Although some events, such as death of a loved one, are considered to be universally stressful (Antonovsky, 1979), not everyone experiences a negative response to these stressors. The reason for these individual responses has been summed up by Wolf and Goodell (1968):

"Man's ability to adapt, that is to remain free of disease, depends not only on his own inherent capacities and past experiences, but also on his motivation and the support and refreshment that his environment can afford him." (p. 9)

To understand the nature of stress, it is necessary to understand the individual's way of perceiving and responding to stressful life events (Lowenthal, Thurnher, and Chiriboga, 1975).

As Selye (1956) has conceptualized it, stress occurs when some part of the individual personality has not been allowed to develop. Such restricted development often results in the lack of a feeling of individual significance (McQuade and Aikman, 1974). This lack of significance leads the individual to interpret the social and physical environment as "threatening, challenging, demanding, and frustrating" (Dohrenwend and Dohrenwend, 1974, p. 29).
McLean (1974) has stated that all stress involves loss of some kind. This loss may be due to an internal or external threat, such as the threat of losing self-control, resulting in anger, a threat to the conscience, resulting in guilt, or the threat of physical harm, resulting in fear. In each case, the individual perceives an environmental threat as the cause of some unwanted emotion (McLean, 1974).

Once having appraised the environment as threatening, the individual must then cope with the resulting stress (Monat and Lazarus, 1977). Coping with stress may be done directly by changing the environment, or indirectly by controlling the unwanted emotion (Monat and Lazarus, 1977). As Neufield (1978) has determined, successful coping also depends on the individual's perceived ability to cope.

**Women and Stress**

Although adaptation to the stress of life is a universally human characteristic, there is a clear indication that men and women neither perceive nor respond to stress in exactly the same manner. Traditionally, women have reported and sought help for stress-related disorders more frequently than have men (Guttentag, Salasin, and Belle, 1980).

In response to this pattern, Guttentag, Salasin, and Belle (1980) ask, are women indeed under more stress than men, or do women experience the same stressors as men but interpret them as more stressful? Horowitz, Wilner, and Alvarez (1979) have suggested that women experience no more stress than men, but are more encouraged than men to report it.

It is likely that each of these factors contributes in part to the stress experienced by women. Some women undoubtedly experience more
stress than most men due to societal pressures or multiple role demands (Wright, 1975; Hall, 1972). Other women probably perceive their stress as worse than the stress experienced by men (Tung, 1980). Finally, many women are socialized to complain about physical and mental discomfort which makes them appear more susceptible than men to life stress (Linehan and Egan, 1979; Stellman, 1977).

It is clear, however, that although response to stress is individual, there are many similarities among women which differentiate them from men in the area of stress. According to Guttentag, Salasin, and Belle (1980), stressful life events are responded to by many women with a learned helplessness which creates depression. Radloff (1975) has hypothesized that this learned helplessness is really an anger response that has been turned inward. Men, on the other hand, turn their anger outward and respond to stress by asserting their control.

Interestingly, some women apparently do not respond with learned helplessness. In a study of male and female administrators, Tung (1980) found that the stress levels experienced by the women were less than those experienced by the men. Furthermore, after a number of years, the stress level of the women administrators declined more rapidly than did the levels of the men.

It appears that, for women, overcoming stress is in part a function of overcoming socialization to fulfill traditional roles. Research studying women in traditional roles, such as non-working wives, indicates that married women report more depression and less satisfaction than single women (Linehan and Egan, 1979). Radloff (1975) found that although
working wives were less depressed than housewives, these working women were still more depressed than working husbands. These data suggest that marriage may be healthier for men than for women!

Burke and Weir (1976) found, too, that husbands of working wives were in poorer health and were less satisfied than husbands with non-working wives. In addition, the working wives were in better physical and emotional health than a comparable sample of non-working wives. This research indicates that married women in non-traditional roles are healthier than those in traditional roles, although husbands with non-working wives are healthier than those with working wives.

For women who have been in a traditional role, however, the sudden loss of that role may result in traumatic feelings. Aslin (1978) has reported that newly divorced and widowed women often experience emotional loss because they are not socialized to function as unmarried women.

The traditional role of homemaker also appears to create stress for many women. Croog (1970) has noted that family stressors tend to be multiple. Among some specific family stressors are value conflicts, interpersonal relationships, child rearing disagreements, and adolescent conflicts (Croog, 1970; Wright, 1975).

The literature further suggests that the stress of women in traditional, married, non-working, homemaking roles is different from women in non-traditional roles. While many traditional women suffer from depression, non-traditional women often feel the stress of role conflict. Many women who venture out of the traditional role face the problem of filling multiple roles (Hall, 1972). This interrole conflict is usually due to role overload and too many time demands (Hall, 1972).
In a study of dual-career couples, Keith and Schafer (1980) found that women experienced more work-family role strain than did men. The women in this study reported feeling bothered that their jobs interfered with their families. Those women with children at home experienced even more role strain than women without children.

Gray (1980) investigated both the practical and psychological problems of professional women with families. Among the practical problems listed by these women were having the primary responsibility for the household, pursuing careers considered secondary to their husbands', and missing career opportunities because of their husbands' business moves. Some of the psychological concerns of these women were their need for emotional support from significant others, society's non-acceptance of women as professionals, and role conflicts, particularly in the area of child rearing.

According to Herman and Gyllstrom (1977), role overload for women occurs when a number of legitimate roles make simultaneous demands. In a study of college faculty women, the subjects reported that role conflict was a function of the number of social roles they held as well as the relative importance of their jobs within the organizational structure (Herman and Gyllstrom, 1977).

Most of the research cited so far has been conducted with relatively young women who have experienced the stress of fulfilling traditional roles or the stress produced by the conflict of non-traditional roles. However, there is also considerable evidence that stress is a concern for older women as well. Chiriboga (1980) has stated that mental illness
in the elderly is frequently due to an inability to cope with stress. One possible explanation for this inability to cope is that exposure to stress accumulates throughout life, overwhelming the older individual's limited coping resources during the later years (Lowenthal, Thurnher, and Chiriboga, 1975).

In a longitudinal study reported by Chiriboga and Cutler (1980), older persons reported being more troubled by stress than younger persons. In another study, Horowitz, Wilner, and Alvarez (1979) administered a Life Events Questionnaire to elderly men and women. In all areas covered by the questionnaire, women rated events as more stressful than did men. A third study, conducted by Lowenthal, Thurnher, and Chiriboga (1975), yielded data indicating that women at all stages of life tend to be more overwhelmed by life stressors than are men. This distinction between male and female responses to stress is particularly dramatic for the elderly, as older women have fewer resources to combat stress than do older men (Lowenthal, Thurnher, and Chiriboga, 1975).

Some researchers attribute the higher incidence of stress related depression in middle-aged and elderly women to role loss. Bart (1971) has suggested that this depression in middle-aged mothers may be due to overinvolved relationships with their children. These relationships, naturally, are disturbed when the children finally leave home. Indeed, aging women undergo many stressful changes. Notman (1979) summed it up:

"For women, midlife tensions are the result of a combination of personal, family, social, and biological variables with post-menopausal development an important phase." (p. 1270) These variables, though important for all women, take on even greater importance for the aging.
Clearly, women are subject to stress at all ages and in all roles. More importantly, women often respond to this stress of life with unhealthy reactions.

Anxiety, Locus of Control and Stress

The current research is also examining the characteristics of anxiety and locus of control and their relationship to women under stress. The literature indicates that each of these characteristics has been considered in recent research.

O'Neil (1972) administered the State-Trait Anxiety Inventory to female college students to determine if stress affects state anxiety and task performance. The students were then put in stress or non-stress situations while solving problems. The results indicated that women with high anxiety made more errors than low anxiety women on easy tasks. Also, stressful events were perceived as more threatening to those women who had high anxiety than those who had low anxiety.

Anxiety also appears to differ for males and females. In a study by Janisse and Palys (1976), male and female college students were asked to list five situations which made them anxious and to indicate how anxious those situations made them. The women students reported feeling a higher intensity of anxiety than did the men students. Furthermore, the women also viewed more situations as physically threatening.

Kushnir (1978) also found a difference in male and female anxiety responses. In a study of firstborns, it was found that there was no difference between the anxiety levels of firstborns and later-borns. The only exception to this was that under some stressful conditions,
firstborn females reported higher anxiety states and became more af- filiative (Kushnir, 1978).

Other researchers have also explored the relationship of anxiety and field dependence or locus of control. Dargel and Kirk (1971) investigated the effects of anxiety and field dependence on perceptual motor performance. The investigators designated their female subjects as high or low anxious and as field-dependent or field-independent. Their results indicated that anxiety level did not affect performance and that anxiety and field-dependence did not interact. However, field-independent women did better than field-dependent women on moderately difficult perceptual tasks.

In a more recent study, Price and Blackwell (1980) administered the State-Trait Anxiety Inventory and Rotter's internal-external locus of control measure to female migraine sufferers. The migraine sufferers reported higher anxiety than non-sufferers. In addition, the data indicated a clear relationship between migraines, depression, and external locus of control.

The issue of locus of control is also central to how women perceive and respond to stress. Garfield (1979) has asserted that feelings of powerlessness, or lack of control, inevitably lead to stress. However, research conducted by Wortman, Pancreia, Shusterman, and Hibscher (1976) indicated that the stress produced by a threatening situation is not due to the lack of control per se, but to the individual's interpretation of this lack of control. According to their study, if the lack of control is perceived as due to the individual's personal inadequacy, it
creates stress, while if the lack of control is perceived as due to the situation, there is little or no stress.

Several researchers have also addressed the development of locus of control in women. Bryant and Trockel (1976) found that locus of control in women was related to events having affective significance for the individual. In their study, "external" women recalled negative stressful events occurring during their pre-school years. "Internal" women, on the other hand, recalled positive stressful events occurring in high school over which they perceived control. The researchers then raised questions concerning whether these women are "internal" because of these high school experiences, or whether the women's present feelings of control color their recollection of these earlier events.

Nowicki (1978) explored the development of locus of control in both men and women. According to this study, men and women do not share similar experiences which are central to the development of locus of control. Furthermore, men and women have different vulnerabilities to stressful events and to the ability of these events to affect locus of control.

Certainly, locus of control is an important factor for women under stress. Indeed, there is evidence that this control is central to stress throughout the life span. Krantz and Stone (1978) classified both young and old subjects as internals or externals and asked them to perform cognitive tasks while under stress. The subjects were then put into the stress situation of receiving positive or negative feedback about their performance. The internals performed better than the
externals in both the success and failure conditions. Interestingly, although the elderly externals performed the worst after failure, the elderly internals did the best of any group after failure.

Another study using primarily women investigated the relationship of locus of control to adjustment of institutionalized elderly (Felton and Kahana, 1974). The results of this study indicated that the most successfully adjusted of the women were those who identified their locus of control as external. The researchers hypothesized that internality may lead to a lack of adjustment when institutionalized.

Although the research data are not consistent, it is clear from the literature that both anxiety and locus of control are factors in the stress response of women. These characteristics are also influential in the consideration of treatment for women under stress.

Treatment of Stress

Since the primary purpose of the present study is to determine the effectiveness of stress reduction training for women, it is important to include a review of currently advocated treatments. Although a thorough search of the literature revealed a paucity of researched treatment programs designed for women under stress, the literature does provide a rationale for the treatment approach used in the present investigation.

During stressful times and conditions, Wright (1975) has asserted that successful coping depends on recognizing the warning signals of stress, knowing self and personal responses to stress, and identifying the sources of stress. One of the most effective means of accomplishing
these ends is through structured group counseling or training (Rice and Goering, 1977).

In his book, Stress Power! How to Turn Tension into Energy, Anderson (1978) has described numerous specific interventions for decreasing tension and stress. Among these interventions are, manipulating the stressful environment, physical exercise, creative expression of feelings, avocational pursuits, the use of humor, conscious relaxation, and cultivating positive thinking.

Manis (1978) has further described the use of structured group activities for reducing stress specifically in women. The purposes of such a group are listed as helping women, 1) to control choices and behavior, 2) to learn communication skills, and 3) to gain emotional support. Some of the training techniques Manis has recommended include assertiveness, decision making, goal planning, and leadership.

Further support for the use of the assertiveness and relaxation training interventions suggested by Anderson (1978) and Manis (1978) can be found in the literature. Jakubowski-Spector (1973) has advocated a semi-structured approach to assertiveness for women. In a case study reported by Pelletier (1979), a woman was able to successfully manage her stress using biofeedback and relaxation. Margolis and Kroes (1974) have also reported success using relaxation to manage job stress.

Support for the positive thinking and decision making techniques suggested earlier may be found in several cognitive training approaches to stress reduction. Lazarus (1970) has suggested that stress is the result of cognitive, not emotional, processes. Folkman, Schaefer and Lazarus (1979) have further recommended that, to relieve stress,
the individuals should identify and change the cognitions creating the stress. Parrino (1979) has outlined one approach to cognitive training based on changing irrational thinking.

Most of the stress reduction techniques considered so far have been applied to both men and women. However, a number of writings provide strong support for all-women's groups. According to Whiteley (1978), all-women's groups help women to discover their own individuality and potential. Furthermore, all-female groups convey the message to the group members that women can exist and thrive apart from men (Sturdivant, 1980).

Another advantage of all-women's groups is that they allow women to look at themselves without having to maintain the roles expected by men and by society (Halas, 1973; Meador, Solomon, and Bowen, 1972). Halas (1973) has further noted that a high level of trust is usually established very quickly in all-female groups. It is this trust and mutual comfortableness that allows women to develop all parts of their personalities (Meador, Solomon, and Bowen, 1972). As Schlossberg (1972) has discovered, counselors can help women implement their new-found personalities through continued contact in all-female groups.

This treatment of the literature dealing with stress reduction therapy for women provides a justification for the training program designed for the current investigation. Many of the described techniques are included in the all-women groups conducted by the researcher.

**Summary**

The preceding review of the literature has suggested that, although
stress itself is neither positive nor negative, the human response to stress is almost always negative. Furthermore, women, like men, suffer from their negative responses to stress. However, the literature further suggests that women perceive and respond differently to stress than do men. In addition, the characteristics of anxiety and locus of control, which influence stress responses, also differ for men and women. Finally, the review includes the views of researchers and therapists who have advocated stress treatment programs that take into account the differing stress responses of women.

It should be noted that according to the literature review, the personality characteristics of field dependence, perceived anxiety, and anxiety proneness have a relationship to stress. However, the nature of this relationship cannot be precisely defined because of the contradictory results of research previously reported.

Findings concerning the positive relationship between anxiety and stress appear to be fairly consistent. As Hodges (1967) reported, high anxiety appears to be positively and significantly correlated with stressful events. O'Neil (1972) also reported a positive relationship between stress and anxiety.

The relationship of field dependence to stress and anxiety is less clear, however. Although Wennerholm and Zale (1976) found locus of control to be significantly related to stress disorders, Dargel and Kirk (1971) reported that they found no relationship between the variables of locus of control and anxiety.
The present study was attempted in order to enhance understanding of the nature of the inter-relationships of stress, anxiety, and field dependence or locus of control. The hypotheses which follow are based upon research studies previously reported.

**Hypotheses**

In the following research hypotheses, the following abbreviations are used: field dependence (FD), perceived anxiety (PA), and anxiety proneness (AP).

1. Women under stress who complete stress-reduction training will have a lower level of perceived stress than women who complete a group counseling program and women who comprise a no-treatment control group when pretest perceived stress is controlled.

2. There will be a significant difference in levels of perceived stress for the three groups (training, support, and control) when the variables of field dependence, perceived anxiety, and anxiety proneness are controlled.

3. The variables of field dependence, perceived anxiety, and anxiety proneness will be related to perceived stress levels prior to treatment. These relationships will be examined through the use of the following sub-hypotheses:
   a. The full model $R^2$, where pretest perceived stress level $= f(FD, PA, AP, FDxPA, FDxAP, PAXAP, FDxPAXAP)$, will be significantly different from zero.
   b. The combined effect of the three-way interaction of $FDxPAxAP$ will make a statistically significant contribution to the full model.
c. The two-way FDxPA interaction will make a statistically significant contribution to the full or reduced model, or both.

d. The two-way FDxAP interaction will make a statistically significant contribution to the full or reduced model, or both.

e. The two-way PAxAP interaction will make a statistically significant contribution to the full or reduced model, or both.

f. The level of field dependence will make a statistically significant contribution to the full or reduced model, or both.

g. The level of perceived anxiety will make a statistically significant contribution to the full or reduced model, or both.

h. The level of anxiety proneness will make a statistically significant contribution to the full or reduced model, or both.
Definitions of Terms

For the purposes of the current study, the following terms have been defined:

1) Perceived stress is the individual's interpretation of the impact of stressful life events (Hamilton and Warburton, 1979). In this study, level of perceived stress was measured by the Life Experiences Survey (LES) (Sarason, Johnson, and Siegel, 1978).

2) Perceived anxiety is a conscious, human emotional state characterized by fearful, tense feelings and increased activity of the autonomic nervous system (Spielberger, Gorsuch, and Lushene, 1970). For the purposes of this study, level of perceived anxiety was measured by the state anxiety scale of the State-Trait Anxiety Inventory.

3) Anxiety proneness is a human tendency to interpret situations or events as threatening and to respond with a degree of perceived anxiety (Spielberger, Gorsuch, and Lushene, 1970). In this study, level of anxiety proneness was measured by the trait anxiety scale of the State-Trait Anxiety Inventory.

4) Externality, or field dependence, is an individual's dependence on the overall visual field in order to perceive that field. External individuals perceive parts of the field as fused (Witkin, Oltman, Raskin, and Karp, 1971). In this study, field-dependence or externality was measured by the Group Embedded Figures Test.

5) Internality, or field-independence, is an individual's independence of the visual field in order to perceive parts of that field. Internal individuals perceive parts as discrete from the overall field.
(Witkin, Oltman, Raskin, and Karp, 1971). In this study, field-independence or internality was measured by the Group Embedded Figures Test.

6) The Stress Reduction Training method is an eight-week teaching program designed to aid women in the reduction of stress. This program is based on the assumption that stress reduction is directly related to learning how to control one's physical, emotional, behavioral, and cognitive responses to stress.

7) The counseling group is an eight-week counseling program designed to give women support, but not to work directly toward the reduction of stress. This placebo group is designed to control for the effect of attention and group support as factors in reducing stress in women.

These definitions are intended to clarify the assessment instruments, the personality constructs, and the methods employed in this study. It should be noted that stress is also measured by the Self-Evaluation Questionnaire designed by the author. This instrument, however, does not serve to define stress nor any of the components of stress.

The following section will further define the methods used in this study. These methods include subject selection, assessment, treatment, and statistical analysis.
Method

Subjects

The subjects for this investigation were 18 women who volunteered to participate in the study. These women were notified of the study by (1) flyers posted on a college campus, (2) two professors who announced the study to their classes, (3) telephone contact with three women's organizations, and (4) word of mouth. The women volunteers then contacted the investigator and expressed their interest in participating.

Six women were placed in each of three groups -- the stress-reduction training group, the counseling group, and the no-treatment control group. This selection was done by assigning each volunteer a number when she contacted the researcher. A table of random numbers was used to place each volunteer in either the stress-reduction training group, the counseling group, or the no-treatment control group. Although randomization was attempted, true randomization was impossible due to the time schedules of the participants, and the relationships of several of the women to each other. Two of the women were roommates and two were mother and daughter. The investigator determined, by a coin toss, separate group placements for these women.

Each of the participants was seeking help with stress and expressed a willingness to participate in the study either as a treatment or control group member. The women were between the ages of 20 and 48, with a median age of 27. Six of the participants were attending college full time while working part time, five were full time college students, four were employed full time, two were unemployed homemakers, and one was a homemaker
with a part time volunteer job. In addition, four of the women were married, four were divorced, and five had children.

**Instruments**

The *Life Experiences Survey (LES)* (Sarason, Johnson, and Siegel, 1978) was used to measure the level of perceived stress (see Appendix A). The LES consists of a list of 57 life events and a rating scale used to indicate the impact of each event on the individual.

The LES is scored by summing the positive ratings to obtain a positive-change score, and by summing the negative ratings to obtain a negative-change score. These two values are added to yield a single total life change score representing the level of perceived stress experienced. The higher the total stress score, the greater amount of stress an individual is experiencing.

Reliability data for the LES were obtained from two test-retest studies. The first study employed 34 undergraduates of a southern university who were tested and then retested six weeks later. A Pearson product-moment correlation coefficient of .63 was found. The second study, involving 54 undergraduates, was conducted in the same manner and yielded a correlation coefficient of .64 (Sarason, Johnson, and Siegel, 1978).

The LES was tested for validity through several correlational studies. The LES and the *Psychological Screening Inventory (PSI)* were administered to 75 students. Correlational data obtained indicated that negative life change scores on the LES were significantly related to the social non-conformity and discomfort scales of the PSI, with a correlation coefficient of .28. In another study of 64 college students, the LES
scores were correlated with scores on the Beck Depression Scale and the Internal-External Locus of Control Scale. Results indicated that negative change scores on the LES, when compared to high scores on the Beck scale, yielded a correlation coefficient of .24. When the LES was compared to the locus-of-control scale, a correlation coefficient of .32 was obtained (Sarason, Johnson, and Siegel, 1978).

A measure of perceived anxiety and anxiety proneness of the subjects was obtained by the administration of the State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch, and Lushene, 1970). The STAI consists of two separate self-report scales containing 20 items each (see Appendix B). The A-State scale requires the subjects to report how they are feeling at the time of the test administration. The A-Trait scale requires the subjects to report how they feel most of the time. The STAI yields two scores, one for each scale, ranging from 20 to 80. These scores correspond with percentile scores indicating the degree of perceived anxiety and anxiety proneness (Spielberger, Gorsuch, and Lushene, 1970).

Normative data for the STAI were obtained from large samples of both college and high school students. In a study reported by Spielberger, Gorsuch, and Lushene (1970), a sample of college undergraduates yielded a test-retest correlation ranging from .73 to .86 for the A-Trait scale. Since the A-State scale measures transitory anxiety, a temporary emotional state, the alpha coefficient was used to measure the internal consistency of the scale. Using the K-R 20 formula, alpha coefficients ranging from .83 to .93 were obtained for the A-State scale. These results suggest considerable reliability for both scales.
Spielberger, Gorsuch, and Lushene (1970) have also reported that concurrent validity of the STAI was suggested by a correlational study of the STAI, the IPAT Anxiety Scale, and the Taylor Manifest Anxiety Scale (TMAS). The correlation coefficient for the STAI and the IPAT was .75, while the coefficient for the STAI and the TMAS was .80.

Construct validity of the STAI was also suggested by a study in which the A-State scale was administered to 977 undergraduate students under both stressful and non-stressful conditions. The alpha coefficients for both males and females ranged from .93 to .83 (Spielberger, Gorsuch, and Lushene, 1970).

A measure of field-dependence/independence was obtained by the administration of the Group Embedded Figures Test (GEFT) (Oltman, Raskin, and Witkin, 1971). The GEFT consists of 18 simple geometric forms hidden within more complex figures. Subjects are required to locate the simple figures within a prescribed period of time. The GEFT yields a single score ranging between zero and 18. Any score of nine or less indicates high field dependence, while a score of 10 or higher indicates low field dependence.

The GEFT was developed from the individually administered Embedded Figures Test developed by Witkin. Furthermore, the EFT and the GEFT have been normed on a number of different age groups for both males and females (Witkin, Oltman, Raskin, and Karp, 1971).

Witkin, et al. (1971) have reported that the reliability of the GEFT was indicated in a study of both males and females of varying ages. Split-half reliability, computed by the Spearman Brown prophecy formula, was .82 for both males and females.
Validity for both the GEFT and the original EFT is presented in a study which correlated scores on these instruments with scores on the Articulation of Body Concept (ABC) test. The performance on the GEFT, when correlated with EFT scores, yielded a Pearson r of .71 for males and .55 for females (Witkin, et al., 1971).

It should be noted that the field-dependence measured by the GEFT is another way of measuring locus of control. As Witkin, et al. (1971) have defined field-dependence, it is a cognitive function which represents an individual's perceptual style. Since perceptual styles tend to be consistent and stable (Witkin, et al., 1971), field-dependence tends to operate in all kinds of problem solving as well as in visual discrimination tasks like those required on the GEFT. As Bell (1955) found, individuals with high field dependence also indicated high externality or "other directedness" on a locus of control measure.

An informal measure of the subjective perception of stress was obtained through the Self-Evaluation Questionnaire. This questionnaire was developed by the researcher in the present study to gain descriptive information about the perceptions of the participants concerning their stress and their confidence in the effectiveness of the treatment.

The pre-test questionnaire consists of four open-ended questions and a seven-point rating scale to indicate the level of stress each participant is experiencing (see Appendix C). The post-test questionnaire consists of three open-ended questions and another seven-point stress rating scale (see Appendix D).
Procedures

All the subjects were tested during the same 10-day period before the beginning of the treatment procedures. The stress reduction training group members were tested together at the beginning of the first group session. The counseling group members were also tested together at the beginning of the first group session. The control group members were tested together during one test period and were then dismissed without further contact from the investigator.

The tests were administered to all three groups in the same order. The following instructions were given to all groups at the time of the pre-testing:

Please complete these tests as honestly and accurately as you can. Your answers will not be used against you in any way. I do need your name on each test in order to compare results at the conclusion of the study. However, no one but me will see these results, and I will destroy all the tests at the conclusion of the study. I will also make available to you copies of the results of this research after my data has been collected. Thank you for your cooperation.

The no-treatment control group only was given this additional information at the time of the pretesting: "Those of you who wish to participate in a stress reduction group at the conclusion of this study will be given your choice of the two approaches used in this research."

The first test administered by the researcher was the Self-Evaluation Questionnaire (pre-treatment form) (see Appendix C). The stress reduction training group and the counseling group were given this pre-treatment
questionnaire with no further instruction. The control group was instructed to answer questions three, four, and five only on the questionnaire, as questions one and two dealt with treatment group participation.

The next test administered was the Life Experiences Survey (Sarason, Johnson, and Siegel, 1978; see Appendix A). All three groups were asked to read the printed instructions carefully. The following additional instruction was given to all three groups: "As you are indicating these life events, you may want to indicate some as being both positive to some degree and negative to some degree."

The third test, the State-Trait Anxiety Inventory (Spielberger, Gorsuch, and Lushene, 1971; see Appendix B), was administered by the researcher to all three groups. The participants were asked to read the instructions carefully before beginning. After reading the instructions, the subjects were reminded that STAI form X-1 was intended to measure how they were feeling at the moment while STAI form X-2 was measuring how they generally felt.

The last test administered was the Group Embedded Figures Test (Oltman, Raskin, and Witkin, 1971). This test was administered to all three groups following the standard procedures listed in the test manual (Witkin, Oltman, Raskin, and Karp, 1971). Before beginning the test, the following additional instruction was given to all groups: "This is a test which indicates your problem solving style. The test was designed to contain difficult problems; some you may not be able to solve. However, do your best without worrying about the ones you might have missed." This concluded the pre-testing.
Prior to the beginning of the group treatments, the confidence expressed by the group members concerning treatment effectiveness was examined. This was done by evaluating the responses of training group and support group members to question number two on the Self-Evaluation Questionnaire (pre-treatment form; see Appendix C). The question asked, "Do you feel this experience will be helpful in reducing your stress?"

The responses of the group members to question two were designated as positive (yes), negative (no), or neutral (maybe or I hope so). Four of the training group members gave positive responses, none gave a negative response, and two gave neutral responses. The response pattern of the support group was identical to that of the training group. Four of the support group members gave positive responses, none gave a negative response, and two gave neutral responses. This similarity of response indicated no significant difference in the expressed confidence in treatment effectiveness between the training and support groups. For this reason, no further analysis was necessary, and it was assumed that the level of confidence in the treatment was the same for both groups.

Following the pre-testing, the stress reduction training and counseling groups began. These groups were conducted by the researcher for two hours once a week for eight consecutive weeks. The members of the no-treatment control group had no further contact with the researcher until the post-testing period.

The stress reduction training group followed a specific program format designed by the investigator. The program used is described as follows (see Appendix E).
During the first session, the group spent the first hour taking the pre-tests described in the previous section. The second hour was used to complete Worksheet #1 (see Appendix F) which focused on the group members' individual responses to stress. The responses discussed by the group after completing the worksheet included their physical, emotional, social, and psychological reactions to stress. Following the discussion, the group members were given the assignment of focusing on and recording their responses to stress throughout the following week.

The second session dealt with learning relaxation to help the group members cope with their physical reactions to stress. The first minutes of this session were used to focus on the assignment given the week before. After a discussion of the stress responses recorded by the group members during the week, the group identified the particular organ systems that were the most affected when they were under stress, such as the gastro-intestinal or reproductive systems. Following this discussion, the group was instructed to relax and listen to a tape recording of a muscle relaxation exercise (Parrino, 1979; see Appendix G). The audio tape relaxation program was 25 minutes in length. At the conclusion of the tape, the investigator conducted a brief discussion of the relaxation experience. The group was then given the assignment of practicing the muscle relaxation exercise at least three times during the following week.

The focus of the third session was to eliminate stress by learning assertiveness. During the first minutes of the session, the group members discussed their experiences with their relaxation assignment during
the previous week. Following this discussion, the investigator modeled the completion of Worksheet #2 (see Appendix H) which focused on situations in which the group members had difficulty being assertive. After a discussion of these situations, the researcher instructed the participants in three assertive techniques—persistence, negative inquiry, and eye contact (Smith, 1975). The group members paired off following this instruction and were led by the instructor through a role-play of each of these techniques. The investigator also conducted an eye contact exercise (Smith, 1975; see Appendix I) with the paired-off group members. Following this exercise, the group listened to an eight-minute audio relaxation tape incorporating the assertiveness theme (see Appendix J). At the conclusion of the tape, the researcher assigned the group members to practice assertiveness during the next week.

Session four focused on learning rational thinking in order to eliminate stress. The session began with a discussion of the assertiveness assignment of the preceding week. During the rest of the session, the investigator modeled the completion of Worksheet #3 and Worksheet #4 (see Appendices K and L). Worksheet #3 focused on the irrational thinking the group members learned from their parents, while Worksheet #4 focused on the irrational thoughts the group members were telling themselves (Ellis and Harper, 1975). The researcher followed this exercise with a discussion focusing on eliminating the irrational thinking of the participants and replacing this thinking with more rational thoughts. After this discussion, the group members listened to an eight-minute tape recording incorporating the themes of relaxation and
rational thinking (see Appendix M). The investigator ended the session after the tape with an assignment to the group members. The participants were asked to identify their irrational thoughts throughout the week and to take responsibility for changing these thoughts to more rational ones and to act on the new rational thoughts.

The fifth session was focused on eliminating stress through creative, emotional expression. At the beginning of this session, the group discussed the previous week's assignment of eliminating irrational thinking. Following this discussion, the investigator modeled a self-expression activity called Life-Line. In this activity, each group member drew a line representing her life. After completing this activity, the researcher led a discussion of each group member's Life-Line. Following this discussion, the instructor modeled the completion of Worksheet #5 (Olsen, 1974; see Appendix N) which required the subjects to list self-descriptive adjectives. Then the group members listed and discussed adjectives which described each other. After this activity, the group listened to an eight-minute relaxation tape stressing the theme of creative self-expression (see Appendix 0). At the conclusion of the tape, the investigator assigned the group members to keep a personal, creative journal for the subsequent week.

The focus of the sixth session was on eliminating stress by learning more efficient use of time. The first minutes of the session were spent by the group members sharing their personal, creative journals. After this discussion, the investigator modeled the completion of Worksheet #6 (Schuler, 1979; see Appendix P) which was designed to
help the participants learn to prioritize their time expenditures. After prioritizing her activities, each group member learned how other group members prioritized these same activities. Following this activity, the researcher conducted a discussion of more efficient ways to prioritize activities based on the needs and wants of the group members, stressing the desirability of having a balance of needs and wants. The group then completed Worksheet #7 (see Appendix Q) which focused on how the group members both wasted and saved time. This was followed by a discussion. After this activity, the group listened to a tape recording based on relaxation and time management (see Appendix R). When the eight-minute tape and relaxation period ended, the investigator asked the group members to keep a time log during the upcoming week and to identify several of their time wasters and time savers.

The topics of session seven were how to control stress through (1) effective decision making and (2) goal setting. During the first minutes of this session, the investigator led a discussion of the time logs kept by the group members during the preceding week, focusing on the time wasters and time savers identified by the members. Following this discussion, the investigator modeled the completion of Worksheet #8 (see Appendix S) which focused on the difficult decisions with which the group members had struggled or were struggling. After completion of this worksheet and a discussion of it, the instructor modeled completion of Worksheet #9 (see Appendix T) which dealt with making and reaching both personal and professional goals. The researcher then conducted a discussion of the personal and professional goals of the group members. When the discussion ended, the group listened to an
eight-minute relaxation tape which incorporated the topics of decision making and goal setting (see Appendix U). The session ended after the investigator assigned the group members to follow through on the personal and professional goals they set for themselves for the following week.

The eighth and final session of the program was spent reviewing the stress-reduction techniques learned in the program, followed by the administration of the post-treatment assessment instruments. The first hour was used to discuss the goal planning assignment given to the group members the previous session and to complete Worksheet #10 (see Appendix V). This worksheet focused on the new stress responses learned by the group members during the stress reduction training program. Following a discussion of these new responses, the group members filled out an evaluation form indicating which training session was the most helpful in reducing their stress (see Appendix W). This last session concluded with the administration of the post-test instruments discussed in the last section of this chapter.

The counseling group in this study served as an attention-placebo to control for attention and group interaction as factors in reducing stress in women. The counseling group, unlike the stress reduction training group, did not follow a specific program format. This unstructured group dealt with the concerns of the group members as they were brought up, without any particular emphasis on stress.

The first group session was used for administering the pre-tests. Following this assessment, the group remained for a brief discussion of the purposes of the research study. The remaining sessions, except
for the final session, were unstructured discussions among the group members about topics, issues, and personal concerns.

Among the topics discussed by these women were school assignments, exam difficulties, car buying, dieting, child rearing, marriage, and divorce. Though most of the sessions consisted of unplanned discussion, at the request of the group members, session five was devoted to a discussion of nutrition, health, and stress.

The last session, the eighth, was used for a discussion about the group members' experiences in the group. Following this discussion, the post-test instruments were administered in the manner described as follows.

All the groups were given the post-tests in the same order during the same ten-day period, eight weeks after the pre-testing and immediately following the treatment groups. The stress reduction training group was tested as a group during the last hour of the final session. The counseling group was tested as a group during the last hour of the final session. The no-treatment control group was tested as a group during one test period.

The first test administered to all three groups was the Self-Evaluation Questionnaire (post-treatment form; see Appendix D). The stress reduction training group and counseling group were given the questionnaire without further instructions. The no-treatment control group was instructed to answer only questions one, two, and four on the questionnaire, as question three dealt with the treatment group experience.
The other post-test given to all three groups was the Life Experiences Survey (Sarason, Johnson, and Siegel, 1978; see Appendix A), the administration of which was described earlier in this section. All the subjects were asked to read the printed instructions carefully before beginning. The following additional instruction was given to all three groups: "As you complete this survey, be as honest as you can. Do not attempt to make your answers agree or disagree with your original survey."

After the completion of the administration of these instruments, the groups were concluded. There was no further assessment, instruction, or counseling.

For Hypothesis 1, a one-way analysis of co-variance was used to compare adjusted post-test mean scores of the Life Experiences Survey across the three groups. The covariate was pretest level of perceived stress. This did not yield a significant F-ratio so the Scheffé test was not conducted.

Hypothesis 2 was also tested through an analysis of covariance. The characteristics of field dependence, perceived anxiety, and anxiety proneness were used as covariates to determine the effects of these variables on post-test levels of perceived stress.

Hypothesis 3 and the sub-hypotheses a through h were tested through multiple regression analysis using the pretest scores of field dependence (FD), perceived anxiety (PA), and anxiety proneness (AP), and the interaction of these factors as independent variables. The pretest scores on the LES were used as the dependent variable of perceived stress level.

The .05 level of significance was used for all hypotheses.
Results

One purpose of this study was to determine the comparative effectiveness of three different group experiences on the reduction of stress in women. Another purpose was to determine what, if any, relationship the variables of field dependence, perceived anxiety, and anxiety proneness have to stress in women.

Three research hypotheses and eight sub-hypotheses were formulated for the study. For purposes of statistical analysis, these hypotheses were restated in the null form in the present chapter.

Hypothesis 1

Null Hypothesis 1 stated: There will be no significant difference among the training, support, and control groups with respect to the level of stress following the treatment period. In order to test this hypothesis, the adjusted post-test scores on the Life Experiences Survey (LES) were compared across groups through analyses of covariance. Table 1 shows the mean scores and standard deviations obtained from the LES.

Table 1

Means and Standard Deviations for the Life Experiences Survey

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Post-test</th>
<th>Adjusted</th>
<th>Pretest</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>43.00000</td>
<td>29.50000</td>
<td>24.56398</td>
<td>12.80625</td>
<td>11.77710</td>
</tr>
</tbody>
</table>
As Table 1 indicates, although the training group mean is considerably higher than that of the support and control groups for the pretest, the post-test means for all three groups are closer in value. The adjusted means for all three groups are even closer in value.

The standard deviations for the groups are also reported in Table 1. The training group shows the least change in score variability with a pretest standard deviation of 12.806 and a post-test standard deviation of 11.777. The support group, however, shows the greatest change in score variability with a pretest standard deviation of 13.571 and a post-test standard deviation of 8.383. The control group had a pretest standard deviation of 16.158 and a post-test standard deviation of 11.822.

The score variability was also examined within groups through a procedure described by Leal, Baxter, Martin, and Marx (1981). The results of this procedure's analysis are reported in Table 2.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Means</th>
<th>Adjusted Means</th>
<th>Pretest Standard Deviations</th>
<th>Mean Difference/SD</th>
<th>Percentage of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>43.00000</td>
<td>24.56398</td>
<td>12.80625</td>
<td>1.4396111</td>
<td>144</td>
</tr>
<tr>
<td>Support</td>
<td>28.50000</td>
<td>26.11775</td>
<td>13.51666</td>
<td>.1762454</td>
<td>18</td>
</tr>
<tr>
<td>Control</td>
<td>28.66667</td>
<td>28.25855</td>
<td>16.15756</td>
<td>.0252587</td>
<td>2</td>
</tr>
</tbody>
</table>

The data in Table 2 indicate that the training group had considerably greater score variability on the LES than did either the support or control
group. The data further indicate that the reduction of stress for the training group was more than 100 percent of its pretest standard deviation. The reduction of stress for the support group was only 18 percent of its pretest standard deviation.

The analysis of covariance data for the three groups for the LES post-test scores are presented in Table 3.

Table 3  
Analysis of Covariance Data for the LES

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>104.3335</td>
<td>52.1667</td>
<td>.449</td>
<td>.6467</td>
</tr>
<tr>
<td>Within Groups</td>
<td>15</td>
<td>1743.6655</td>
<td>116.2444</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F-ratio of .449 was not significant at the .05 level which was set for rejection of the null hypothesis. Because of this lack of significance, the null hypothesis was retained, and it was assumed that there was no significant difference in the adjusted stress levels of women among the three groups after treatment.

Hypothesis 2

Null Hypothesis 2 stated: There will be no significant difference in levels of perceived stress for the three groups (training, support, and control) when the variables of field dependence, perceived anxiety, and anxiety proneness are controlled. To test this hypothesis, the
adjusted post-test scores on the LES were compared through analysis of covariance using each of these variables (FD, PA, and AP) as co-
variates. The means resulting from this analysis are reported in Table 4.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Post-test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed</td>
<td>Observed</td>
<td>Adjusted</td>
</tr>
<tr>
<td>Training</td>
<td>43.000000</td>
<td>29.500000</td>
<td>22.47032</td>
</tr>
<tr>
<td>Support</td>
<td>28.500000</td>
<td>23.66667</td>
<td>24.41297</td>
</tr>
<tr>
<td>Control</td>
<td>28.66667</td>
<td>25.83333</td>
<td>32.11671</td>
</tr>
</tbody>
</table>

As Table 4 indicates, the training group has a lower adjusted post-
test mean than either the support or control group. In addition, the adjusted post-test mean of the control group is considerably higher than the means of the two treatment groups.

The analysis of covariance data for the LES post-test scores when controlling for FD, PA, and AP are reported in Table 5.

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within cells</td>
<td>11</td>
<td>789.01864</td>
<td>71.72897</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>2</td>
<td>153.65603</td>
<td>76.82802</td>
<td>1.07109</td>
<td>.376</td>
</tr>
</tbody>
</table>
Table 5 indicates that when controlling for FD, PA, and AP, there is not a significant F-ratio. Therefore, Null Hypothesis 2 is retained. That is, there is no significant difference in levels of perceived stress for the three groups when controlling for the variables of field dependence, perceived anxiety, and anxiety proneness.

Hypothesis 3 and Sub-hypotheses a through h were concerned with the effects of the variables of field dependence (FD), perceived anxiety (PA), and anxiety proneness (AP) on perceived stress level prior to treatment. In order to test these hypotheses, these three independent variables and their interactions were evaluated for their relationship to perceived stress levels, with perceived stress being measured by the pretest scores on the LES. Full and reduced multiple regression models were employed at a tolerance level of .00001.

**Hypothesis 3**

Null Hypothesis 3 stated: The variables of field dependence, perceived anxiety, and anxiety proneness will not be related to perceived stress levels prior to treatment. This hypothesis was tested through multiple regression analysis which was applied to the Sub-hypotheses a through h which follow:

**Sub-Hypothesis 3a**

Null Sub-hypothesis 3a stated: The full model $R^2$, where pretest level of perceived stress $= f(FD, PA, AP, FDxPA, FDxAP, PAxAP, FDxPAxAP)$, will not be significantly different from zero. The means and standard deviations for the full-model multiple regression analysis are recorded in Table 6.
Table 6
Means and Standard Deviations of Variables in the Full Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Stress</td>
<td>33.389</td>
<td>15.089</td>
</tr>
<tr>
<td>FDxPA</td>
<td>546.500</td>
<td>319.896</td>
</tr>
<tr>
<td>FDxAP</td>
<td>453.667</td>
<td>226.515</td>
</tr>
<tr>
<td>PAxAP</td>
<td>1716.778</td>
<td>544.519</td>
</tr>
<tr>
<td>FDxPAxAP</td>
<td>20043.889</td>
<td>10257.466</td>
</tr>
<tr>
<td>FD</td>
<td>12.056</td>
<td>5.651</td>
</tr>
<tr>
<td>PA</td>
<td>44.556</td>
<td>10.662</td>
</tr>
<tr>
<td>AP</td>
<td>39.056</td>
<td>11.420</td>
</tr>
</tbody>
</table>

The intercorrelations of the predictor variables (in Table 6) and pretest levels of perceived stress are shown in Table 7.
Table 7
Intercorrelations of Variables and Perceived Stress in the Full Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pretest Stress</th>
<th>FDxPA</th>
<th>FDxAP</th>
<th>PAXAP</th>
<th>FDxPAXAP</th>
<th>FD</th>
<th>PA</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Stress</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FDxPA</td>
<td>-.171</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FDxAP</td>
<td>.119</td>
<td>.573</td>
<td>----</td>
<td>-----</td>
<td>-------</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>PAXAP</td>
<td>.620*</td>
<td>-.011</td>
<td>.124</td>
<td>----</td>
<td>-------</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FDxPAXAP</td>
<td>.069</td>
<td>.857</td>
<td>.865</td>
<td>.268</td>
<td>----</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FD</td>
<td>-.157</td>
<td>.857</td>
<td>.808</td>
<td>-.225</td>
<td>.832</td>
<td>----</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>PA</td>
<td>.072</td>
<td>.630</td>
<td>-.074</td>
<td>.441</td>
<td>.419</td>
<td>.164</td>
<td>----</td>
<td>--</td>
</tr>
<tr>
<td>AP</td>
<td>.591*</td>
<td>-.377</td>
<td>.281</td>
<td>.781</td>
<td>.095</td>
<td>-.282</td>
<td>-.203</td>
<td>----</td>
</tr>
</tbody>
</table>

* Significant at the .05 level for a one-tailed test

The correlations in Table 7 show that anxiety proneness (AP) is the only single variable with any significant relationship to pretest levels of stress, having a correlation of .591. The two-way interaction of perceived anxiety (PA) and anxiety proneness (AP) also had a significant correlation with change in stress. This apparent relationship between anxiety proneness and pretest levels of perceived stress in women is further explored through the following regression analysis.

Data for the full-model multiple regression analysis are presented in Tables 8 and 9. The variables considered in this model are field...
dependence (FD), perceived anxiety (PA), anxiety proneness (AP), and all possible interactions of these variables.

Table 8

Analysis of Variance Summary Table for Full Model, Perceived Stress = f(FD, PA, AP, FDxPA, FDxAP, PAxAP, FDxPAxAP)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>7</td>
<td>2721.76958</td>
<td>388.82423</td>
<td>3.38547</td>
<td>.0400</td>
</tr>
<tr>
<td>Residual</td>
<td>10</td>
<td>1148.50820</td>
<td>114.85082</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9

Full Model R-Values

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>.83860</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.70325</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.49552</td>
</tr>
</tbody>
</table>

Table 9 reveals that all the variables together yield an $R^2$ of approximately .70. Table 8 indicates a significant $F$-ratio. Therefore, Null Hypothesis 3a is rejected. That is, the full model $R^2$ is significantly different from zero. The three variables, FD, PA, and AP, and all the interactions of these variables, have a positive and significant relationship to perceived stress.

Sub-Hypothesis 3b

Null Sub-hypothesis 3b stated: The combined effect of the three-way interaction of FDxPAxAP will not make a statistically significant
contribution to the full model. Table 10 reports the unique contribution of this three-way interaction to the full model of perceived stress.

Table 10
Unique Contribution of FDxPAxAP to the Full Model

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>R^2</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDxPAxAP</td>
<td>1</td>
<td>0.10850</td>
<td>3.65615</td>
<td>0.0849</td>
</tr>
<tr>
<td>Full Model</td>
<td>10</td>
<td>0.70325</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 10, the FDxPAxAP interaction yields a unique contribution of approximately .11 to the full model. This however, does not yield a significant F-ratio, so Null Hypothesis 3b is retained. That is, the three-way interaction of FDxPAxAP does not make a significant contribution to the full model.

The full model regression equation was then reduced to examine the effects of fewer variables and fewer variable interactions on perceived stress. The first reduced model regression equation consists of the full model with FDxPAxAP removed, which yields, perceived stress = f(FD, PA, AP, FDxPA, FDxAP, PAxAP).

This reduction of the model was continued until all the sub-hypotheses were tested. Sub-hypotheses c, d, and e were analyzed through this first reduced model. Tables 11 and 12 indicate the analysis of variance for this reduced regression model. The resulting unique contributions of the two-way interactions of FDxPA, FDxAP, and PAxAP are reported in Table 13.
Table 11

Analysis of Variance Summary Table for Reduced Model
Perceived Stress = f(FD,PA,AP,FDxPA,FDxAP,PAxAP)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6</td>
<td>2301.85818</td>
<td>383.64303</td>
<td>2.69065</td>
<td>.0737</td>
</tr>
<tr>
<td>Residual</td>
<td>11</td>
<td>1568.41960</td>
<td>142.58360</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12

R-Values for the Reduced Model, Perceived Stress = f(FD,PA,AP,FDxPA,FDxAP,PAxAP)

<table>
<thead>
<tr>
<th>Multiple R</th>
<th>R²</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>.77120</td>
<td>.59475</td>
<td>.37371</td>
</tr>
</tbody>
</table>

Table 13

Unique Contributions of FDxPA, FDxAP, and PAxAP to the Reduced Model

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDxPA</td>
<td>1</td>
<td>.03418</td>
<td>.92775</td>
<td>.3561</td>
</tr>
<tr>
<td>FDxAP</td>
<td>1</td>
<td>.02602</td>
<td>.70640</td>
<td>.4185</td>
</tr>
<tr>
<td>PAxAP</td>
<td>1</td>
<td>.03628</td>
<td>.98486</td>
<td>.3423</td>
</tr>
<tr>
<td>Reduced Model</td>
<td>11</td>
<td>.59475</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As reported in Tables 11 and 12, the reduced model, with FDxPAxAP removed, yields an $R^2$ value of approximately .59. However, this does not result in a significant F-ratio.
Sub-Hypothesis 3c

Null Sub-hypothesis 3 stated: The two-way interaction of FDxPA will not make a statistically significant contribution to the full and/or reduced model. However, because of the lack of significance found in the full model, FDxPA was tested for its contribution to the reduced model. As indicated in Table 13, the FDxPA interaction yields a unique contribution of approximately .03 to the first reduced model. This however, does not result in a significant F-ratio. Therefore, Null Hypothesis 3c is retained.

Sub-Hypothesis 3d

Null Sub-hypothesis 3d stated: The two-way interaction of FDxAP will not make a statistically significant contribution to the full and/or reduced model. Because of the lack of significance in the full model, however, FDxAP was tested for its contribution to the reduced model. Table 13 shows that the FDxAP interaction yields a unique contribution of approximately .03 to the first reduced model. Because there is not a significant F-ratio, however, Null Hypothesis 3d is retained.

Sub-Hypothesis 3e

Null Sub-hypothesis 3e stated: The two-way interaction of PAxAP will not make a statistically significant contribution to the full and/or reduced model. However, PAxAP was tested for its contribution to the reduced model because of the lack of significance for the full model. As Table 13 shows, the PAxAP interaction yields a unique contribution of approximately .04 to the first reduced model. However, because of the nonsignificant F-ratio, Null Hypothesis 3e is retained.
The first reduced model regression equation was reduced again by removing the three non-significant two-way interactions of FDxPA, FDxAP, and PAxAP, yielding a second reduced model of, perceived stress = f(FD,PA,AP). Sub-hypotheses f, g, and h were analyzed through this second reduced model.

The resulting analysis data of the second reduced model are presented in Tables 14 and 15. Table 16 reports the unique contributions of each of the variables singly.

Table 14

Analysis of Variance Summary Table for the Second Reduced Model
Perceived Stress = f(FD,PA,AP)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3</td>
<td>1500.57415</td>
<td>500.19138</td>
<td>2.95509</td>
<td>.0689</td>
</tr>
<tr>
<td>Residual</td>
<td>14</td>
<td>2369.70363</td>
<td>169.26454</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15

R-Values for the Second Reduced Model, Perceived Stress = f(FD,PA,AP)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>.62267</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.38772</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.25651</td>
</tr>
</tbody>
</table>
Table 16
Unique Contributions of FD, PA, and AP to the Second Reduced Model

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>$R^2$</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD</td>
<td>1</td>
<td>.00816</td>
<td>.00357</td>
<td>.9532</td>
</tr>
<tr>
<td>PA</td>
<td>1</td>
<td>.03856</td>
<td>.88160</td>
<td>.3637</td>
</tr>
<tr>
<td>AP</td>
<td>1</td>
<td>.35327</td>
<td>.07753</td>
<td>.0131</td>
</tr>
<tr>
<td>Reduced Model</td>
<td>14</td>
<td>.38772</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tables 14 and 15 show that the single variables, FD, PA, and AP, together yield an $R^2$ value of approximately .39. However, this does not result in a significant F-ratio.

**Sub-Hypothesis 3f**

Null Sub-hypothesis 3f stated: The level of field dependence will not make a statistically significant contribution to the full and/or reduced model. The second reduced model was used to test the contribution of field dependence. It is clear from Table 16 that the level of field dependence (FD) yields a unique contribution of approximately .008 to the second reduced model. This, however, does not result in a significant F-ratio. Therefore, Null Hypothesis 3f is retained.

**Sub-Hypothesis 3g**

Null Sub-hypothesis 3g stated: The level of perceived anxiety will not make a statistically significant contribution to the full and/or reduced model. The variable, PA, was tested for its contribution
to the second reduced model. Table 16 indicates that the level of perceived anxiety (PA) yields a unique contribution of approximately .04. However, because the F-ratio is not significant, Null Hypothesis 3g is retained.

**Sub-Hypothesis 3h**

Null Sub-hypothesis 3h stated: The level of anxiety proneness will not make a statistically significant contribution to the full and/or reduced model. The contribution of AP was tested by the second reduced model. As Table 16 indicates, the level of anxiety proneness (AP) yields a unique contribution of approximately .35. Also, because there is a significant F-ratio, Null Hypothesis 3g is rejected. Anxiety proneness has a positive relationship to perceived stress.

As indicated in the preceding discussion of results, all the hypotheses were rejected except Sub-hypotheses 3a and 3h. Sub-hypothesis 3a stated that field dependence, perceived anxiety, and anxiety proneness, and all the possible interactions of these variables (full model R²) would have a positive relationship to perceived stress. Sub-hypothesis 3h stated that anxiety proneness would have a positive relationship to perceived stress.

In spite of the rejection of Hypothesis 1, further examination of the individual women and their personal reports indicates that there were changes in the perceived stress levels for many of the participants. These reports revealed that some women had experienced considerable reduction in stress.
To identify change, an analysis was conducted with the Self-Evaluation Questionnaire (pre-treatment and post-treatment forms; see Appendices C and D). The pre-treatment and post-treatment scores on the seven-point stress scale were compared. Table 17 indicates the means and percentages of improvement (lowered stress) for all three groups.

Table 17
Means and Percentages of Stress Reduction Reported on Self-Evaluation Questionnaires

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Means</th>
<th>Post-test Means</th>
<th>Number Improved</th>
<th>Percent of Individual Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>4.2</td>
<td>2.5</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Support</td>
<td>4.7</td>
<td>4.7</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>Control</td>
<td>5.3</td>
<td>5.0</td>
<td>3</td>
<td>50</td>
</tr>
</tbody>
</table>

As Table 17 indicates, the stress reduction training group had the greatest number of women reporting lowered stress. However, only half of the control group members reported lowered stress, and only a third of the support group felt their stress had been lowered.

A chi-square test of independence was also conducted to determine if the number of individuals reporting lowered stress was significantly different across groups. The chi-square value was 6.6666, which is significant at the .05 level. These informal analyses reveal that there was a significant difference among the groups with regard to stress reduction reported on the Self-Evaluation Questionnaire.
In order to determine how the groups differed, a Fisher Exact Probability Test was conducted for the stress reduction training group and the support group. This analysis indicated that there was a significant difference at the .05 level between the reported stress reduction of the women in the training group and the women in the support group. A second Fisher test, conducted with the training group and control group, did not yield a significant difference, however. These analyses indicate that the training group members reported significantly lower stress than the support group members. However, the training group did not report significantly lower stress than the control group.

Discussion

The analysis of the LES scores indicates that there is no statistically significant difference in the levels of stress reduction of women among the three groups examined in the current investigation. This lack of statistical significance led to the rejection of Hypothesis 1 of the present study.

However, an informal chi-square analysis of responses on the Self-Evaluation Questionnaire indicates that a significant difference in stress reduction does exist among groups. An informal Fisher test further indicates that more individuals in the stress reduction training group reported improvement on the Self-Evaluation Questionnaire than did individuals in the support group. However, there was no significant difference in the reported stress reduction between the training group and the control group.
This informal analysis indicates that although there was more reported improvement among the training group members than among the support group members, it was not significantly greater than the reduction in stress that occurred when no treatment was applied. Such a finding suggests that stress may have been reduced simply by acknowledging it, even without treatment, or that stress may have been reduced over time.

The lack of significance in the stress reduction levels among the groups appears to contradict the assertions of stress experts quoted earlier in this report. Houston (1972) found that increasing control over stress reduces both stress and anxiety. Rice and Goering (1977) advocated the use of structured training groups to reduce stress. Another report, by Manis (1978), also stated that training groups afforded greater stress reduction than non-structured groups.

However, the informal data analysis of the present study seems to support the use of structured training groups for reducing stress in women. As noted, the women in this study showed greater individual improvement as the result of stress reduction training.

The lack of definitive results in the current study indicates the need for further research in the area of women and stress. Clearly, the true effectiveness of stress reduction training for women has not been determined.

A second analysis of LES scores indicated, furthermore, that the variables of field dependence, perceived anxiety, and anxiety proneness did not affect levels of perceived stress. The lack of a statistically significant effect led to the rejection of Hypothesis 2.
However, further analysis of these variables (FD, PA, and AP) indicates that together they have a significant relationship to stress. Also, anxiety proneness singly has a significant relationship to pretest levels of perceived stress. However, field dependence and perceived anxiety are not significantly related to perceived stress levels. The results of this analysis suggest that anxiety proneness, not field dependence or perceived anxiety, tends to be predictive of levels of perceived stress for the women in this study.

Anxiety proneness, as measured by the State-Trait Anxiety Inventory (STAI), is a self-reported tendency of individuals to respond with tenseness most of the time. The finding that anxiety proneness is predictive of perceived stress is consistent with Hodges' (1967) research which found that high anxiety levels were correlated with stress. This relationship was also confirmed by Sachs and Diesenhaus (1969) who found that high anxiety proneness scores on the STAI were correlated with high stress conditions.

However, the lack of significance of the other two variables, field dependence and perceived anxiety, seems to contradict the research of Wennerholm and Zale (1976), who found that locus of control was directly related to anxiety levels and stress levels of individuals under stress. Furthermore, in a recent study, Price and Blackwell (1980) reported a strong relationship between anxiety levels on the STAI and locus of control scores of women with stress-related migraine headaches. These research findings appear contradictory to the present study's findings.

On the other hand, a study by Dargel and Kirk (1971) revealed no relationship between anxiety levels and field dependence/independence.
This study seems to confirm the current investigation's lack of statistical significance for the variables of perceived anxiety and field dependence, both singly and in interaction.

Again, the lack of consistent and definitive results in this study indicates the need for further research exploring the relationship of the variables of field dependence, perceived anxiety, and anxiety proneness to stress reduction in women. These variables may prove to be highly predictive of perceived stress for another population or in combination with different variables.

One of the reasons for the lack of predictive significance of two of the personality variables considered in the current study may be the nature of the variables themselves. It may be that field dependence, perceived anxiety, and anxiety proneness are dependent rather than independent variables in the reduction of levels of stress. The measured levels of these variables may be influenced by a change in stress rather than contributing to that change.

Support for this relationship between these personality characteristics and stress is also given by the correlation between anxiety proneness and level of stress which was reported earlier. This correlation may be due to the nature of anxiety proneness itself rather than its influence on perceived stress. Because women who reported the highest levels of anxiety proneness also reported the greatest level of perceived stress, it may be that the anxiety proneness scale used in the present study also measures stress. Perhaps anxiety proneness and stress are highly similar traits which are difficult to separate operationally.
Limitations

In the previous section of this dissertation, several limiting factors of the study were discussed. In addition, other research and design limitations may have affected the results of the current investigation.

An obvious limitation of the present research is the small number of subjects studied. This small number may have contributed to the lack of statistical significance among the individuals and the groups studied.

In addition to the small sample size, there are other factors that may at least partially account for the lack of statistical significance in the reduction of stress among the groups in the present study. It may be that the counseling support group was more effective than originally expected at reducing the stress of the participants, and was not exclusively an attention-placebo control. Indeed, the support group members expressed a willingness to lessen their stress and reported behavioral changes they had made to lessen their stress during the treatment period.

Another factor that may have influenced the lack of statistical significance among the groups was experimenter bias. It was necessary for experimental control for the researcher to conduct all the treatment groups and testing. Such an arrangement, however, may have introduced the researcher's unconscious desire for certain individuals or groups to improve or not to improve. Of course, such an expectation could have confounded the results.
Another influence which may have affected statistical significance is the degree of confidence the subjects had in the two proposed treatments, stress reduction training and group counseling. Though the pretreatment analysis of the confidence question on the Self-Evaluation Questionnaire (pretreatment form) revealed no difference in the expressed confidence of the two treatment groups, there may indeed have been a difference that was not assessed via the questionnaire. A difference in the degree of confidence may have influenced both the amount of change in stress expected and the amount of change in stress experienced.

Another factor in the lack of difference among the groups is the length of treatment time. Though an eight-week program was the optimal time period for the present study, this time period may have been insufficient for some women to experience a reduction in stress. On the other hand, eight weeks may have been more than long enough for the stress of some individuals to remit spontaneously.

Other limitations of the study concern individual, uncontrollable influences of the participants. Both the training and support groups had members who attended somewhat irregularly, or who arrived late. Some members, however, attended every group meeting and arrived punctually. Such an attendance pattern could have affected both individual and group reduction of stress.

Other uncontrollable factors include the occurrence of various life events and influences during the course of the research. For example, one woman who had just become a mother at the beginning of the study reported at the end of the study that she had made a satisfying and unstressed adjustment to her new role. On the other hand, some women
may have experienced unavoidable life crises which caused increased rather than decreased stress at the conclusion of the study.

Another individual influence which may have contributed to the lack of statistical significance among the groups was the degree of individual commitment to change which may be immeasurable. Individuals in all three groups expressed feelings of stress and the desire for help in reducing this stress. However, there is no effective way to determine a commitment to treatment. It may be that some individuals in both the support group and the training group were resistant to lowering their levels of perceived stress.

Another possible limitation is that the instruments used in the present study to determine levels of field dependence, perceived anxiety, and anxiety proneness were not valid. The instruments may not have been sensitive enough to differentiate among the women, or may have measured characteristics other than the ones they were designed to measure. For example, the field dependence/independence test may have measured some aspect of intelligence rather than locus of control, while the perceived anxiety/anxiety proneness test may have measured stress or self-confidence.

An additional limitation may have been the use of the LES to measure level of perceived stress. The LES may have not been the most valid method of measuring true differences in individual levels of perceived stress. Another instrument or different scoring method, such as using average scores rather than total scores, may have yielded a more accurate measure of stress.

A possible design limitation of the present study is the lack of a delayed post-test administration of the LES to determine if stress
reduction was maintained over time, was reduced more, or was increased. The absence of such data makes it difficult to determine if the results found in the present study were indeed due to treatment effects.

Clearly, another limitation is the assumption that the personality variables considered in the current investigation were distinctly independent of the treatment effect. If these characteristics were not independent, a post-test administration of the STAI and the GEFT may have yielded data concerning their relationship to change in levels of perceived stress.

Conclusions

Although, on the basis of the present investigation, only two of the stated research hypotheses are confirmed, there are clear inferences and possible conclusions. The study revealed patterns and tendencies both among the variables studied and for individual women.

The results of the analysis of data related to Hypothesis 1 suggest that stress reduction training, support group counseling, and no treatment were equally effective in reducing stress in the women studied. However, the individual reports of the women participants indicate that stress reduction training was more effective than group counseling in reducing stress for some individuals.

Analysis of data related to Hypothesis 2 leads to the conclusion that the characteristics of field dependence, perceived anxiety, and anxiety proneness did not significantly affect stress levels across groups. This means there was no significant effect for either the training or the counseling group.
Another conclusion suggested by the data analysis is that levels of field dependence and perceived anxiety are not significantly related to levels of perceived stress in women. Furthermore, the interactions of these factors appear not to be related to perceived stress.

However, it may be concluded that level of anxiety proneness is related to perceived stress of women prior to treatment. This result also suggests that anxiety proneness and perceived stress may be similar traits.

**Recommendations**

The results of the current investigation suggest the following recommendations in the areas of future research and practical applications. These recommendations are based on the conclusions and limitations of the present study.

Future research concerned with stress reduction in women should be conducted with a larger and more heterogeneous population. Such a population might enable any existing statistical significance to emerge. A larger population is also recommended for the replication of the present study.

Another recommendation for future research in this area is to exercise more control over extraneous variables, such as irregular group attendance or the reduction of stress through outside contact. This may be done, perhaps, by creating incentives for consistent attendance and by restricting the subjects from certain contacts, such as personal counseling, during the course of their stress reduction groups.

Future research might also take into consideration the eight-week time frame employed by the current investigation. A subsequent study
might increase or decrease the number of weeks used. Another alternative would be to increase or decrease the number of times per week that the groups met. Rather than once a week for two hours, the groups could meet twice a week for one hour or twice a month for four hours.

Because two of the personality variables used in the present study seemed to have little relation to perceived stress, future research should consider studying different or more personality characteristics. It may be that the variables employed by this study would have some significance when interacting with other, different variables.

Perhaps the instruments used for assessment in the current investigation were not sensitive enough to yield useful data. Other instruments which might be studied in addition to those of this research include the Taylor Manifest Anxiety Scale, the Rotter Internal-External Locus of Control Scale, and the Schedule of Recent Events.

Future research on stress reduction should consider and attempt to avoid possible experimenter bias. An obvious way to avoid bias is to have someone other than the researcher conduct the treatments and administer the instruments. Ideally, the group leaders would also be unaware of which treatment was expected to be most effective in reducing stress.

Another recommendation for future research is to include a delayed post-test of the appropriate measure of perceived stress level. Such a measure would allow the researcher to determine with more confidence the long term effectiveness of the treatments studied.

Also, future researchers may want to re-evaluate any personality characteristics being studied at the conclusion of the stress reduction treatments employed. This re-assessment may allow the researcher to
conclude more accurately what relationship the considered characteristics have to stress or change in stress.

It is also recommended that future stress reduction research involving treatments should attempt to determine how credible the treatments appear to the participants. This could be done through a pilot study in which a number of volunteers are presented with brief rationales of all the proposed treatments being studied. The volunteers could then be asked to indicate how effective each of the treatments appeared to them. These responses could then be examined to determine if the expressed confidence in all treatments appears equal. Such data would help the researcher control for treatment credibility differences.

Of course, there is also an obvious need for stress research with men as well as women. The present study could be easily modified to be conducted with men. Another possible research direction would be a comparative study of women alone, men alone, and women and men together, in three separate stress reduction experiences.

The present study has implications for practitioners as well as researchers. Because there appeared to be definite individual patterns of response to each treatment group experience, participants in stress reduction groups might be asked their preferences for group placement. Some individuals may gain greater stress reduction through the direct intervention of the training group, while others may gain more from a counseling group experience.

Practitioners who are interested in stress reduction interventions might also consider the use of the training group program in a less structured manner. For example, a counselor might use the training
program in conjunction with an ongoing counseling group. Such a format would utilize the benefits of both of the treatment experiences used in the present study.

Also, because level of anxiety proneness had a significant correlation with perceived stress for the women in the current investigation, therapists might consider utilizing a measure of anxiety proneness for stress reduction. Group members might be selected and placed according to the level of anxiety proneness they report. It would appear that those with higher levels of anxiety proneness would be likely to experience greater levels of perceived stress as well. Researchers may also want to use anxiety proneness as a determinant of group membership to insure greater experimental control.

Finally, counselors working with clients under stress might consider the implication of the present study that the level of perceived stress influences both the individual experiencing of stress and the individual reduction of stress. If individual perception is crucial to treatment effectiveness as is implied by this study's results, therapists may want to more carefully assess both the quality or perceived severity of individual stress and individual commitment to reduce that stress. It should be noted, however, that personal commitment to change is impossible to assess precisely through objective measures, and therefore, may be a matter of therapist opinion.

The recommendations included here are not intended to be inclusive. Indeed, the area of stress in women is one which warrants continued study and attention, both by conscientious researchers and concerned therapists.
APPENDIX A

THE LIFE EXPERIENCES SURVEY

Instructions:

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please check those events which you have experienced in the recent past and indicate the time period during which you have experienced each event. Be sure that all check marks are directly across from the items they correspond to.

Also, for each item checked below, please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred. That is, indicate the type and extent of impact that the event had. A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.

Section 1

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<thead>
<tr>
<th>Event</th>
<th>0 to 6 mo.</th>
<th>7 mo. to 1 yr.</th>
<th>Extremely negative</th>
<th>Moderately negative</th>
<th>Somewhat negative</th>
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<td>1. Marriage</td>
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<td>Major change in eating habits (much more or less food intake)</td>
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<td>Foreclosure on mortgage or loan</td>
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<td>Death of close friend</td>
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<td>9.</td>
<td>Outstanding personal achievement</td>
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<td>Minor law violations (traffic tickets, disturbing the peace, etc.)</td>
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<td>Male: Wife/girlfriend's pregnancy</td>
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<td>Female: Pregnancy</td>
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<td>Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)</td>
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<td>New job</td>
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<td>Trouble with employer (in danger of losing job, being suspended, demoted, etc.)</td>
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<td>Sexual difficulties</td>
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<td>17. Serious illness or injury of close family member:</td>
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<td>7 mo. to 1 yr.</td>
<td>Extremely negative</td>
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<td>18. Trouble with in-laws</td>
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<td>19. Major change in financial status (a lot better off or a lot worse off)</td>
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<td>20. Major change in closeness of family members (increased or decreased closeness)</td>
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<td>21. Gaining a new family member (through birth, adoption, family member moving in, etc.)</td>
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<td>23. Marital separation from mate (due to conflict)</td>
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<td>24. Major change in church activities (increased or decreased attendance)</td>
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<td>25. Marital reconciliation with mate</td>
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<td>26. Major change in number of arguments (a lot more or a lot less arguments)</td>
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<td>27. Married male: Change in wife's work</td>
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outside the home (beginning work, ceasing
work, changing to a new job, etc.)
28. Married female: Change in husband's work
(loss of job, beginning new job, retirement,

29. Major change in usual type and/or amount of
recreation
30. Borrowing more than $10,000 (buying home,
business, etc.)
31. Borrowing less than $10,000 (buying car,
TV, getting school loan, etc.)
32. Being fired from job
33. Male: Wife/girlfriend having abortion
34. Female: Having abortion
35. Major personal illness or injury
36. Major change in social activities, e.g.,
parties, movies, visiting (increased or
decreased participation)
37. Major change in living conditions of family
(building new home, remodeling, deteriora-
tion of home, neighborhood, etc.)
38. Divorce
39. Serious injury or illness of close friend
40. Son or daughter leaving home (due to mar-
riage, college, etc.)
<table>
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<tr>
<th></th>
<th>0 to 6 mo.</th>
<th>7 mo. to 1 yr.</th>
<th>Extremely negative</th>
<th>Moderately negative</th>
<th>Somewhat negative</th>
<th>No impact</th>
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<td>41.</td>
<td>Retirement from work</td>
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<td>42.</td>
<td>Ending of formal schooling</td>
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<td>43.</td>
<td>Separation from spouse (due to work, travel, etc.)</td>
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<td>44.</td>
<td>Engagement</td>
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<td>45.</td>
<td>Breaking up with boyfriend/girlfriend</td>
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<td>46.</td>
<td>Leaving home for the first time</td>
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<td>Reconciliation with boyfriend/girlfriend</td>
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<td>Other recent experiences which have had an impact on your life. List and rate.</td>
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Section II  STUDENT ONLY

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<tr>
<td>51.</td>
<td>Beginning a new school experience at a higher academic level (college, graduate school, professional school, etc.)</td>
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<td>52.</td>
<td>Changing to a new school at same academic level (undergraduate, graduate, etc.)</td>
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<td>53.</td>
<td>Academic probation</td>
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<td>54.</td>
<td>Being dismissed from dormitory or other residence</td>
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<td>55. Failing a course</td>
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</tr>
<tr>
<td>56. Dropping a course</td>
<td></td>
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<tr>
<td>57. Joining a fraternity/sorority</td>
<td></td>
</tr>
<tr>
<td>58. Financial problems concerning school (in danger of not having sufficient money to continue, etc.)</td>
<td></td>
</tr>
</tbody>
</table>
SELF-EVALUATION QUESTIONNAIRE

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene

STAI FORM X-1

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 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 am regretful

5. I feel at ease

6. I feel upset

7. I am presently worrying over possible misfortunes

8. I feel rested

9. I feel anxious

10. I feel comfortable

11. I feel self-confident

12. I feel nervous

13. I am jittery

14. I feel "high strung"

15. I am relaxed

16. I feel content

17. I am worried

18. I feel over-excited and "rattled"

19. I feel joyful

20. I feel pleasant
APPENDIX C

SELF-EVALUATION QUESTIONNAIRE
(pre-treatment)

Please answer the following questions in the space provided.

1. Why did you decide to attend this group?

2. Do you feel this experience will be helpful in reducing your stress?

3. How would you describe your current feelings of stress?

4. In what situation(s) do you experience the most stress?

5. Indicate on the scale below the degree of stress you are currently experiencing by circling the number that seems to be appropriate.

1  2  3  4  5  6  7

very little stress  a great deal of stress
APPENDIX D

SELF-EVALUATION QUESTIONNAIRE
(post-treatment)

Please answer the following questions in the space provided.

1. How would you describe your current feelings of stress?

2. In what situation(s) do you experience the most stress?

3. Specifically, what have you gained from attending this group?

4. Indicate on the scale below the degree of stress you are currently experiencing by circling the number that seems to be appropriate.

1  2  3  4  5  6  7
very little stress           a great deal of stress
APPENDIX E

STRESS REDUCTION TRAINING

Week 1  Getting Started
(1) Assessment
(2) Exploring Stress Reactions
(3) Assignment to Monitor Stress Reactions

Week 2  Learning to Relax
(1) Review of Stress Reactions Assignment
(2) Physical Stress Responses
(3) Relaxation Training
(4) Assignment to Practice Relaxation

Week 3  Asserting Yourself
(1) Review of Relaxation Assignment
(2) Social Stress Responses
(3) Assertiveness Training
(4) Assignment to Practice Assertiveness

Week 4  Becoming Rational
(1) Review of Assertiveness Assignment
(2) Cognitive Stress Responses
(3) Rational Thinking Training
(4) Assignment to Practice Rational Thinking

Week 5  Expressing Yourself
(1) Review of Rational Thinking Assignment
(2) Emotional Responses to Stress
(3) Self-Expression Training
(4) Assignment to Keep a Creative Journal

Week 6  Managing Time
(1) Review of Creative Journal Assignment
(2) Behavioral Stress Responses
(3) Time Management Training
(4) Assignment to Monitor Time Use

Week 7  Setting and Reaching Goals
(1) Review of Time Management Assignment
(2) Responses to Future Stress
(3) Decision Making and Goal Planning Training
(4) Assignment to Set and Reach Goals

Week 8  Putting It All Together
(1) Review of Goal Planning Assignment
(2) Exploring New Stress Reactions
(3) Assessment
## APPENDIX F

### WORKSHEET #1

**MY STRESS REACTIONS**

<table>
<thead>
<tr>
<th>Physical/Biological</th>
<th>Emotional/Feelings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exs.: stomach pains, lower back pains, nausea, diarrhea, etc.</td>
<td>Exs.: depressed, anxious, irritable, fatigued, etc.</td>
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</table>

<table>
<thead>
<tr>
<th>Social/Behavioral</th>
<th>Cognitive/Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exs.: argue with spouse/boyfriend, angry with boss, yelling at children, etc.</td>
<td>Exs.: &quot;I should get the dishes done before work.&quot; &quot;I should spend more time with my children,&quot; etc.</td>
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</tbody>
</table>
APPENDIX G

PROGRESSIVE RELAXATION TAPE

SCRIPT #1

Stretch out...close your eyes and make yourself as comfortable as you can. Just think of stretching out your body like a cat as you make yourself just as comfortable as you can. Take a couple of deep breaths to help your body relax naturally. This prepares your body to relax and helps your body relax naturally. Relaxation is a natural process. All you have to do is position your body comfortably and it will relax naturally of its own accord. Once we distract or free the mind, it too will become totally relaxed.

What we're going to do now is relax every part of your body...progressively. While we're doing this, you will hear my voice clearly and distinctly...even though it may go down to a whisper from time to time. You'll be aware of your surroundings although you may care less and less about what goes on around you.

As you lie or sit there quietly, direct your attention to your feet and think...just imagine...that all the muscles in your feet are becoming completely relaxed. Curl your toes toward your soles and squeeze them as hard as you can as you count slowly to five...one...two...three...four...five... Take a deep breath... Slowly release your breath as you let the tension go in your toes... Notice how relaxed your feet feel...relaxed and comfortable.

Keeping your eyes closed, bend your toes back towards your face and tighten the muscles of your calves as tightly as you can as you
count to five... One, tighten...two, tighten more...three, tighten still more...four, hold...five... Take a deep breath... Slowly exhale as you let go of the tension in your thighs and your calves... Notice how relaxed your feet and calves feel...relaxed and comfortable. Just relax.

With your eyes still closed, concentrate on your thighs. Bend your toes and your feet back toward your face again. Tighten the muscles in your thighs, as tightly as you can as you slowly count to five...one, tighten...two, tighten more...three, tighten still more...four, hold it...five... Take a deep breath... Slowly exhale as you let go of the tension in your thighs... Notice how relaxed your thighs feel. Your feet and your legs are relaxed and comfortable... Relax, relax.

As your legs are relaxed and comfortable, focus your attention to your body, yet notice how good your legs feel...

Keeping your eyes closed, tense the muscles in your buttocks... Push down with your buttocks hard against the chair or floor... Push as you count slowly to five. One, push...two, push harder...three, still harder...four, hold...five... Take a deep breath... Slowly exhale as you let go of the tension in your buttocks... Notice how relaxed and comfortable your buttocks and lower back feel. Relax, relax, relax.

In your relaxed position, with your eyes closed, focus on your stomach. Tighten the muscles in your stomach. Tighten your stomach as you count to five...one, tighten...two, tighten more...three,
tighten still more...four, hold...five... Take a deep breath...

Slowly exhale as you let go of the tension in your stomach...
Notice how good your stomach and back feel...relaxed and comfortable...
Relax, relax, relax, relax...

You are feeling more and more relaxed. Keeping your eyes closed, concentrate on your chest. Clasp your hands and press your palms together... Press harder and harder as you count to five...one...two... press harder...three, press still harder...four...five... Take a deep breath... Slowly exhale as you let go of the tension in your chest, as you return your hands comfortably to your sides... Notice how good your chest feels...relaxed and comfortable. Relax, relax, relax.

You are feeling more and more relaxed and more and more comfortable. The tension is gone from your feet and legs...from your back and stomach. The tension is gone from your chest...

With your eyes still closed, focus on your shoulders. Shrug your shoulders, bringing your shoulders up as near your ears as possible... Shrug your shoulders as you count to five...one, shrug...two, shrug more...three, shrug still more...four, hold it...five... Take a deep breath... Slowly exhale as you let go of the tension in your shoulders... Notice how relaxed your shoulders and upper back feel, relaxed and comfortable. Notice the relaxation settling into your upper back...and shoulders...and neck... Relax, relax, relax...

As you relax with your eyes closed, direct your attention to your hands and arms. Stretch your arms out and tighten your hands into fists. Slowly bend your elbows, bringing your fists toward your
shoulders, as you tighten the muscles in your fists and arms. Tighten the muscles in your fists and arms as you count to five...one, tighten...two, tighten more...three, still more...four, hold it...five... Take a deep breath... Slowly exhale as you let go of the tension in your hands and arms. Let your arms return comfortably to your sides... Notice how relaxed and comfortable your hands and arms feel... You feel more and more and more relaxed... Relax, relax...

You are relaxed and warm with your eyes closed. Focus your attention on your throat and neck. Press your chin down on your chest, while tightening your throat muscles. Press down while counting slowly to five...one, press...two, press harder...three, press still harder...four, hold...five... Take a deep breath... Slowly exhale as you let go of the tension in your throat and neck... Notice how good your throat and neck feel...relaxed and comfortable... Relax, just relax, relax, relax...

You are feeling more completely relaxed. You are lying or sitting comfortably with your eyes closed... Concentrate on your face. Tightly wrinkle your forehead, close your eyes tight, grit your teeth. Tense all your face muscles as you count to five...one, tighten...two, tighten more...three, tighten still more...four...five... Take a deep breath... Slowly exhale as you let go of all the tension in your face. Notice how good your face feels, relaxed and tension free... You are now completely relaxed... Your body feels warm and heavy... You are relaxed and comfortable...
With your eyes still closed, you might wish to survey all parts of your body and allow it to relax even further. You may notice areas where some slight tension remains... and you may let the tension go, if you like...

Be aware of your toes. Tell them to relax, relax... and your feet, tell them to relax even further... and your calves. Allow the relaxation to settle into your thighs... into your buttocks. Let any tension go that might remain. Relax your stomach and chest. You're breathing in and out... in and out... With each breath you take, you relax still more and more...

Notice the relaxation settling into your shoulders and your neck. Be aware of the relaxation in your hands, in your arms... Relaxation moving from your hands to your lower arms... to your upper arms... even to your shoulders... into your neck... Relaxation settling deep, deep within your neck, and up into your head, into your scalp, becoming looser, more relaxed... You're allowing relaxation into your face.

Quick survey of your entire body and your limbs... Notice any tension that might remain... and slowly let it go. You are now totally relaxed and comfortable.

Continue to relax even further. I will provide you with a few seconds silence just to relax... deeper and deeper on your own. Then I will awaken you by counting slowly from one to ten. At the count of ten you will be wide awake, alert, refreshed and feeling very proud and pleased with yourself...
When I start to awaken you my voice will not startle you since you will be expecting it...

Now just relax further...and further...and further...deeper...still more deeply relaxed...(50-second pause)

I shall start counting now. One...two...waking up more and more with each count...three...feeling life and energy flowing in your body...four...you will feel no bodily discomfort by the count of nine...five...six...waking up more and more...seven...feeling more and more life and energy flowing in your body. You may begin moving or stretching if you like...eight...feels so good to be refreshed...nine...all discomfort is gone...ten... You are wide awake, alert, and refreshed... Feeling very proud and pleased with yourself.
APPENDIX H

WORKSHEET #2

MY ASSERTIVE BEHAVIOR

Situations in which I have difficulty being assertive:

1.
2.
3.
4.
5.

Situation #1

What I used to say/do:

My new assertive response:

Situation #2

What I used to say/do:

My new assertive response:
APPENDIX I

EYE CONTACT EXERCISE

Listen carefully. I want you to focus on your partner, start-with her feet, and gradually working up to her eyes.


Adapted from:

APPENDIX J

RELAXATION TAPE #2 SCRIPT

I want you to lie back and make yourself as comfortable as you can. Just stretch out and let yourself become as loose and limber as a cat. Take a couple of deep breaths to help your body relax even more... Good... Now just close your eyes and start counting backwards slowly to yourself. Start with 100 and count backwards silently to yourself. Should you reach zero, return to 100 and continue counting backwards. Don't pay any attention to my voice, to what I say... just concentrate on your counting. After a while, you may find it difficult to keep your mind on your counting. You may lose your place and forget which number you last counted. This will be a sign to you that your body and mind are becoming more fully relaxed...and that you're drifting, drifting into a pleasant state of deep sleep. Don't worry if you begin to care less and less about your counting, or if you stop counting...just let yourself go and relax completely...

You can take charge of your life...

As you relax like this, you feel a growing awareness of the control you are able to establish. You feel an awareness of an inner self capable of guiding you, through every hour of every day. By relaxing like this, you can call upon that inner self and establish communication with it.

Relaxation is a natural process. All you have to do is position your body comfortably and it will relax naturally, of its own accord.
Once we distract or free the mind, it too will become totally relaxed. With each count you take, with each breath you take, your body and mind are becoming more and more relaxed.

It's such a pleasant, enjoyable feeling to be completely relaxed... such a soothing and pleasant feeling, as if you just want to drift away into a deep, sound, beautiful slumber. As your body and mind relax more and more, you may become confused and lose your place or forget which number you last counted. It becomes very difficult to keep your mind on your counting. Your whole body is becoming so relaxed. You can eliminate stress. Your feet...even your toes are becoming relaxed... Your ankles and the calves of your legs are relaxing. You're getting that warm, heavy feeling...just like when you go to sleep. All the muscles in your thighs are relaxing... Your legs are now completely relaxed. It feels so good to just let yourself go completely and relax every part of your body.

Your torso, and all the muscles and organs in that region are becoming relaxed... Your abdomen, your diaphragm, and your chest are relaxing, becoming more and more relaxed... Relaxed more and more... Your breathing is becoming deep and regular...in and out...in and out. With each breath you take, with each word I say, you will relax more and more. Your throat and the back of your neck are relaxing. Your muscles are becoming less and less tight and all tension is rapidly vanishing. Your back, too, is becoming relaxed...as it is so comfortable, supported very gently...
And now your forehead and your eyes and all the small muscle groups in that region are becoming completely relaxed. Your whole body is becoming so deeply relaxed. Relax...deeply...relax.

Your whole body is now completely relaxed. It feels so restful, so pleasant to be fully relaxed. You are now so completely relaxed and you are drifting into a sound, comfortable slumber. You are so much at ease and every muscle and nerve in your entire body is completely relaxed and at ease.

You should feel a warm glow of pride in yourself. You are doing something to improve yourself and you deserve to feel happy and proud. Your subconscious mind is very gratified and the subconscious mind will work actively to help you to achieve your goals.

Part of the goals you are working on are in the area of assertiveness. You can choose and decide to be in control. Your subconscious mind knows that you are important and capable. It will work with you persistently in helping you ask for the respect and help you deserve. You are in control, and you can choose to be assertive, since you know you are important and deserve to be heard. Believe it...expect it...and it positively will be that way.

As you relax more and more like this, your subconscious mind will work actively with you to achieve these things.

I will allow you a few seconds more to relax and then I will awaken you by counting from one to ten. When you next hear my voice, you will not be startled because you will be expecting it. So relax...relax. {15-second pause}
I will awaken you now by counting from one to ten. When I reach the count of ten, you will be wide awake, alert, refreshed and feeling very confident in your ability to be more assertive and in control.

I will begin counting now. One...two...waking up more and more with each count...three...feeling life and energy flowing in your body...four...you will feel no bodily discomfort by the count of nine...five...six...waking up more and more...seven...feeling more and more life and energy flowing in your body. You can begin moving, stretching if you like...eight...feels so good to be refreshed...nine...all discomfort is gone...ten...you're wide awake, alert, refreshed and feeling very confident in your ability to be more assertive and in control.
APPENDIX K

WORKSHEET #3

THE IRRATIONAL THINKING I WAS TAUGHT

Shoulds, musts, and oughts I heard from my parents:

(1)
(2)
(3)
(4)
(5)

Should nots, must nots, and ought nots I heard from my parents:

(1)
(2)
(3)
(4)
(5)

Should statement:

On what irrational belief is this statement based?

Can I prove this belief true?

What evidence do I have of the falseness of this belief?

What evidence do I have of the truth of this belief?

What is the worst thing that could happen if I don't do/get what you think I should?

What good things can I make happen if I don't do/get what you think I should?
APPENDIX L
WORKSHEET #4
THE IRRATIONAL THINKING I TEACH MYSELF

Shoulds, musts, and oughts I tell myself:

(1)
(2)
(3)
(4)
(5)

Should nots, must nots, and ought nots I tell myself:

(1)
(2)
(3)
(4)
(5)

Should statement:

On what irrational belief am I basing this statement?

Can I prove this belief to be true?

What evidence exists of the falseness of this belief?

What evidence do I have of the truth of this belief?

What is the worst thing that could happen if I don't do/get what I think I should?

What good things can I make happen if I don't do/get what I think I should?
APPENDIX M

RELAXATION TAPE #3 SCRIPT

I want you to lie back and make yourself as comfortable as you can. Just stretch out and let yourself become as loose and limber as a cat. Take a couple of deep breaths to help your body relax even more... Good...

Now just close your eyes and start counting backwards slowly to yourself. Start with 100 and count backwards silently to yourself. Should you reach zero, return to 100 and continue counting backwards. Don't pay any attention to my voice, to what I say... just concentrate on your counting. Any outside noises will only help you to relax more. After a while, you may find that it becomes difficult to keep your mind on your counting. This will be a sign to you that your body and mind are becoming more fully relaxed... and that you're drifting, drifting into a pleasant state of deep sleep. Don't worry if you begin to care less and less about your counting, or if you stop counting... just let yourself go and relax completely. You can take charge of your life.

As you relax like this, you feel a growing awareness of the control you are able to establish. You feel an awareness of an inner self capable of guiding you, through every hour of every day. By relaxing like this, you can call upon that inner self and establish communication with it.

Relaxation is a natural process. All you have to do is position
your body comfortably and it will relax naturally, of its own accord. Once we distract or free the mind, it too will become totally relaxed. With each count you take, with each breath you take, your body and mind are becoming more and more relaxed. It's such a pleasant, enjoyable feeling to be completely relaxed... such a soothing and pleasant feeling, as if you just want to drift away into a deep, sound, beautiful slumber. As your body and mind relax more and more, you may become confused and lose your place or forget which number you last counted. It becomes difficult to keep your mind on your counting. Your whole body is becoming so relaxed. You can eliminate stress. Your feet... even your toes, are becoming relaxed... Your ankles and the calves of your legs are relaxing. You're getting that warm, heavy feeling... just like when you go to sleep. All the muscles in your thighs are relaxing... Your legs are now completely relaxed. It feels so good to let yourself go completely and relax every part of your body.

Your torso, and all the muscles and organs in that region are becoming relaxed... Your abdomen, your diaphragm, and your chest are relaxing, becoming more and more relaxed... Relaxing more and more... Your breathing is becoming deep and regular... in and out... in and out. With each breath you take, with each word I say, you will relax more and more. Your throat and the back of your neck are relaxing. Your muscles are becoming less and less tight and all tension is rapidly vanishing. Your back, too, is becoming relaxed... and it is so comfortably supported very gently... And now your forehead and your eyes and all the small muscle groups in that region are becoming completely
relaxed. Your whole body is becoming so deeply relaxed. Relax... deeply...relax.

Your whole body is now completely relaxed. It feels so restful, so pleasant to be fully relaxed. You are now so completely relaxed and you are drifting into a sound, comfortable slumber. You are so much at ease and every muscle and nerve in your entire body is completely relaxed and at ease.

You should feel a warm glow of pride in yourself. You are doing something to improve yourself and you deserve to feel happy and proud. Your subconscious mind is very gratified and the subconscious mind will work actively to help you achieve your goals.

Some of the goals you are working on are in the realm of rational thinking. You can choose and decide to be in control, and to learn to think even more rationally. Your subconscious mind knows that you are important and capable, and it will work actively to help you eliminate impossible expectations. You can decide how to think and feel. Since you are in charge of your thinking, you can eliminate the shoulds and should nots in your thinking. Believe it...expect it...and it positively will be that way.

As you relax more and more like this, your subconscious mind will work actively with you to achieve these things.

I will allow you a few seconds more to relax and then I will awaken you by counting from one to ten. When you next hear my voice, you will not be startled because you will be expecting it. So relax... relax. (30-second pause)
I will awaken you now by counting from one to ten. When I reach the count of ten, you will be wide awake, alert, refreshed and feeling very confident in your ability in the realm of rational thinking.

I will begin counting now... One...two...waking up more and more with each count...three...feeling life and energy flowing in your body... four...you will feel no bodily discomfort by the count of nine... five...six...feeling more and more life and energy flowing in your body. You can begin moving, stretching if you like...eight...feels so good to be refreshed...nine all discomfort is gone...ten...you're wide awake, alert, refreshed and feeling very confident in your ability in the realm of rational thinking.
APPENDIX N

WORKSHEET #5

ADJECTIVES THAT DESCRIBE ME

<table>
<thead>
<tr>
<th>The me I feel I am</th>
<th>The me others see</th>
<th>The me I would like to become</th>
</tr>
</thead>
<tbody>
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</table>
APPENDIX O

RELAXATION TAPE #4 SCRIPT

I want you to lie back and make yourself as comfortable as you can. Just stretch out and let yourself become as loose and limber as a cat. Take a couple deep breaths to help your body relax even more... Good...

Now, just close your eyes and start counting backwards slowly, to yourself. Start with 100 and count backwards silently to yourself. Should you reach zero, return to 100 and continue counting backwards. Don't pay any attention to my voice, to what I say...just concentrate on your counting. Any outside noises will only help you to relax more. After a while, you may find that it becomes difficult to keep your mind on your counting. You may lose your place and forget which number you last counted. This will be a sign to you that your body and mind are becoming more fully relaxed...and that you're drifting, drifting into a pleasant state of deep sleep. Don't worry if you begin to care less and less about your counting, or if you stop counting...just let yourself go and relax completely. You can take charge of your life.

As you relax like this, you feel a growing awareness of the control you are able to establish. You feel an awareness of an inner self capable of guiding you, through every hour of every day. By relaxing like this, you can call on that inner self and establish communication with it.
Relaxation is a natural process. All you have to do is position your body comfortably and it will relax naturally, of its own accord. Once we distract or free the mind, it too will become totally relaxed. With each count you take, with each breath you take, your body and mind are becoming more and more relaxed. It's such a pleasant, enjoyable feeling to be completely relaxed... Such a soothing and pleasant feeling, as if you just want to drift away into a deep, sound, beautiful slumber. As your body and mind relax more and more, you may become confused and lose your place or forget which number you last counted. It becomes difficult to keep your mind on your counting. Your whole body is becoming so relaxed. You can eliminate stress. Your feet...even your toes, are becoming relaxed... Your ankles and the calves of your legs are relaxing. You're getting that warm, heavy feeling...just like when you go to sleep. All the muscles in your thighs are relaxing... Your legs are now completely relaxed. It feels so good to just let yourself go completely and relax every part of your body.

Your torso, and all the muscles and organs in that region are becoming relaxed... Your abdomen, your diaphragm, and your chest are relaxing, becoming more and more relaxed... Relaxing more and more... Your breathing is becoming deep and regular...in and out...in and out. With each breath you take, with each word I say, you will relax more and more. Your throat and the back of your neck are relaxing. Your muscles are becoming less and less tight and all tension is rapidly vanishing. Your back, too is becoming relaxed...as it is so comfortably
supported very gently... And now your forehead and your eyes and all the small muscle groups in that region are becoming completely relaxed. Your whole body is becoming so deeply relaxed. Relax... deeply...relax.

Your whole body is now completely relaxed. It feels so restful, so pleasant to be fully relaxed. You are now so completely relaxed and you are drifting into a sound, comfortable slumber. You are so much at ease and every muscle and nerve in your body is completely relaxed and at ease.

You should feel a warm glow of pride in yourself. You are doing something to improve yourself and you deserve to feel happy and proud. Your subconscious mind is very gratified, and the subconscious mind will work actively to help you achieve your goals.

You can choose and decide to be more creative, and to express your inner self more creatively. Since you are in control, you can lessen your stress through creative expression. Your subconscious mind is quite aware that you are special, and unique, and it will work actively with you as you make time for yourself to express your inner self. Since you are aware that you are in charge of yourself, you know you are in charge of your emotions and your ability to express yourself creatively. Believe it...know it is true. As you relax more and more like this, your subconscious mind will work actively with you to achieve these things.

I will allow you a few seconds more to relax, and then I will awaken you by counting from one to ten. When you next hear my voice,
you will not be startled because you will be expecting it. So relax... relax... (30-second pause)

I will awaken you now by counting from one to ten. When I reach the count of ten, you will be wide awake, alert, refreshed and feeling very confident in your ability to express yourself creatively.

I will begin counting now... One... two... waking up more and more with each count... three... feeling life and energy flowing in your body... four... you will feel no bodily discomfort by the count of nine... five... six... waking up more and more... seven... feeling more and more life and energy flowing in your body. You can begin moving, stretching, if you like... eight... feels so good to be refreshed... nine... all discomfort is gone... ten... wide awake, alert, refreshed and feeling very confident in your ability to express yourself creatively.
## APPENDIX P

### WORKSHEET #6

### HOW I PRIORITIZE MY ACTIVITIES

<table>
<thead>
<tr>
<th>Things I need/want to do tomorrow</th>
<th>How my partner prioritizes my activities</th>
<th>How I prioritize my activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FOLD BACK
How I waste time at work/school:
Exs.: Unexpected visitors, phone calls, misplaced assignments

How I waste time at home:
Exs.: Watching T.V., running up and down stairs

How I save time at work/school:
Exs.: Screening calls and visitors, learning to say no

How I save time at home:
Exs.: Do laundry only once a week, have things delivered
APPENDIX R

RELAXATION TAPE #5 SCRIPT

I want you to lie back and make yourself as comfortable as you can. Just stretch out and let yourself become as loose and limber as a cat. Take a couple deep breaths to help your body relax even more...

Good...

Now, just close your eyes and start counting backwards slowly to yourself. Start with 100 and count backwards silently to yourself. Should you reach zero, return to 100 and continue counting backwards. Don't pay any attention to my voice, to what I say...just concentrate on your counting. Any outside noises will only help you to relax more. After a while, you may find that it becomes difficult to keep your mind on your counting. You may lose your place and forget which number you last counted. This will be a sign to you that your body and mind are becoming more fully relaxed...and that you're drifting, drifting into a pleasant state of deep sleep. Don't worry if you begin to care less and less about your counting, or if you stop counting...just let yourself go and relax completely. You can take charge of your life.

As you relax like this, you feel a growing awareness of the control you are able to establish. You feel an awareness of an inner self, capable of guiding you through every hour of every day. By relaxing like this, you can call upon that inner self and establish communication with it.

Relaxation is a natural process. All you have to do is position your body comfortably, and it will relax naturally, of its own accord.
Once we distract or free the mind, it too will become totally relaxed. With each count you take, with each breath you take, your body and mind are becoming more and more relaxed. It's such a pleasant, enjoyable feeling to be completely relaxed... Such a soothing and pleasant feeling, as if you just want to drift away into a deep, sound, beautiful slumber. As your body and mind relax more and more, you may become confused and lose your place or forget which number you last counted. It becomes difficult to keep your mind on your counting. Your whole body is becoming so relaxed. You can eliminate stress. Your feet...even your toes are becoming relaxed... Your ankles and the calves of your legs are relaxing. You're getting that warm, heavy feeling...just like when you go to sleep. All the muscles in your thighs are relaxing... Your legs are now completely relaxed. It feels so good to just let yourself go completely and relax every part of your body.

Your torso, and all the muscles in that region are becoming relaxed... Your abdomen, your diaphragm, and your chest are relaxing, becoming more and more relaxed... Relaxing more and more... Your breathing is becoming deep and regular...in and out...in and out. With each breath you take, with each word I say, you will begin to relax more and more. Your throat and the back of your neck are relaxing. Your muscles are becoming less and less tight and all tension is rapidly vanishing. Your back, too, is becoming relaxed...as it is so comfortably supported, very gently... And now your forehead and your eyes and all the small muscle groups in that region are becoming
completely relaxed. Your whole body is becoming so deeply relaxed.
Relax...deeply...relax.

Your whole body is now completely relaxed. It feels so restful,
so pleasant to be fully relaxed. You are now so completely relaxed
and you are drifting into a sound, comfortable slumber. You are so
much at ease and every muscle and nerve in your entire body is com-
pletely relaxed and at ease.

You should feel a warm glow of pride in yourself. You are doing
something to improve yourself and you deserve to feel happy and proud.
Your subconscious mind is very gratified, and the subconscious mind
will work actively to help you achieve your goals.

Another goal you are working on is to learn to manage time
efficiently. Since you can take charge of your life, you can choose
to take charge of your environment and to organize your time. Your
subconscious mind is aware that you are special and unique, and it
will work actively to help you get the most out of every day. It will
assist you as you work to efficiently prioritize your activities.
As you relax more and more like this, your subconscious mind will work
actively with you to achieve these things.

I will allow you a few seconds more to relax, and then I will
awaken you by counting from one to ten. When you next hear my voice,
you will not be startled because you will be expecting it. So relax...
relax... (15-second pause)

I will awaken you now by counting from one to ten. When I reach
the count of ten you will be wide awake, alert, refreshed and feeling very confident in your ability to manage your time efficiently.

I will begin counting now. One...two...waking up more and more with each count...three...feeling life and energy flowing in your body...four...you will feel no bodily discomfort by the count of nine...five...six...waking up more and more...seven...feeling more and more life and energy flowing in your body. You can begin moving, stretching if you like...eight...feels so good to be refreshed...nine...all discomfort is gone...ten...you're wide awake, alert, refreshed and feeling very confident in your ability to manage your time efficiently.
APPENDIX S

WORKSHEET #8

MY DECISION MAKING

Decisions I am, was, or will be struggling with:

(1)

(2)

(3)

(4)

(5)

A decision I must make:

If I decide:

<table>
<thead>
<tr>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
</table>

If I decide:

<table>
<thead>
<tr>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
</table>
# APPENDIX T

## WORKSHEET #9

**MY PERSONAL/PROFESSIONAL GOALS**

<table>
<thead>
<tr>
<th>Personal Goals</th>
<th>Professional Goals</th>
<th>Conflicts Between Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>For this week:</td>
<td>For this week:</td>
<td>For this week:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For next year:</td>
<td>For next year:</td>
<td>For next year:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For my life:</td>
<td>For my life:</td>
<td>For my life:</td>
</tr>
</tbody>
</table>
I want you to lie back and make yourself as comfortable as you can. Just stretch out and let yourself become as loose and limber as a cat. Take a couple of deep breaths to help your body relax even more... Good...

Now, just close your eyes, and start counting backwards slowly to yourself. Start with 100 and count backwards silently to yourself. Should you reach zero, return to 100 and continue counting backwards. Don't pay any attention to my voice, to what I say...just concentrate on your counting. Any outside noises will only help to relax you more. After a while, you may find that it becomes difficult to keep your mind on your counting. You may lose your place and forget which number you last counted. This will be a sign to you that your body and mind are becoming more fully relaxed...and that you're drifting, drifting into a pleasant state of deep sleep. Don't worry if you begin to care less and less about your counting, or if you stop counting...just let yourself go and relax completely. You can take charge of your life.

As you relax like this, you feel a growing awareness of the control you are able to establish. You feel an awareness of an inner self, capable of guiding you through every hour of every day. By relaxing like this, you can call upon that inner self and establish communication with it.

Relaxation is a natural process. All you have to do is position your body comfortably, and it will relax naturally, of its own accord.
Once we distract or free the mind, it too will become totally relaxed. With each count you take, with each breath you take, your body and mind are becoming more and more relaxed. It's such a pleasant, enjoyable feeling to be completely relaxed... Such a soothing and pleasant feeling, as if you just want to drift away into a deep, sound, beautiful slumber. As your body and mind relax more and more, you may become confused, and lose your place or forget which number you last counted. It becomes difficult to keep your mind on your counting. Your whole body is becoming so relaxed. You can eliminate stress. Your feet... even your toes are becoming relaxed... Your ankles and the calves of your legs are relaxing. You're getting that warm, heavy feeling... just like when you go to sleep. All the muscles in your thighs are relaxing... Your legs are now completely relaxed. It feels so good to just let yourself go completely and relax every part of your body.

Your torso, and all the muscles and organs in that region are becoming relaxed... Your abdomen, your diaphragm, and your chest are relaxing, becoming more and more relaxed... Relaxing more and more... Your breathing is becoming deep and regular...in and out...in and out. With each breath you take, with each word I say, you will relax more and more. Your throat and the back of your neck are relaxing. Your muscles are becoming less and less tight and all tension is rapidly vanishing. Your back, too, is becoming relaxed...as it is so comfortably supported, very gently... And now your forehead, and your eyes, and all the small muscle groups in that region are becoming completely relaxed. Your whole body is becoming so deeply relaxed. Relax... deeply...relax.
Your whole body is now completely relaxed. It feels so restful, so pleasant to be fully relaxed. You are now so completely relaxed, and you are drifting into a sound, beautiful slumber. You are so much at ease and every muscle and nerve in your entire body is completely relaxed and at ease.

You should feel a warm glow of pride in yourself. You are doing something to improve yourself and you deserve to feel happy and proud. Your subconscious mind is very gratified, and the subconscious mind will work actively to help you achieve your goals.

As you more fully take charge of your life, you are striving to become more effective in decision making and goal setting. You know you can choose and decide, because you are in control of your life. Being in control of your life, you are in control of your future. You can set realistic personal goals, and since you are important and capable, you can achieve them. You can also set and achieve realistic professional goals. You can do these things, since you have chosen to be in control of your life and to make good decisions for yourself, because you are important. As you relax more and more like this, your subconscious mind will work actively with you to achieve these things.

I will allow you a few seconds more to relax, and then I will awaken you by counting from one to ten. When you next hear my voice, you will not be startled because you will be expecting it. So relax... relax. (30-second pause)

I will awaken you now by counting from one to ten. When I reach the count of ten, you will be wide awake, alert, refreshed and feeling
very confident in your ability to set realistic goals, and to make decisions good for you.

I will begin counting now... One...two...waking up more and more with each count...three...feeling life and energy flowing in your body...four...you will feel no bodily discomfort by the count of nine...five...six...waking up more and more...seven...feeling more and more life and energy flowing in your body. You can begin moving, stretching if like...eight...feels so good to be refreshed...nine...all discomfort is gone...ten...you're wide awake, alert, refreshed and feeling very confident in your ability to set realistic goals, and to make good decisions for you.
## APPENDIX V

### WORKSHEET #10

**MY NEW STRESS REACTIONS**

<table>
<thead>
<tr>
<th>Physical/Biological</th>
<th>Emotional/Feelings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exs.: no stomach pains, I relax tension away, etc.</td>
<td>Exs.: no longer depressed, I express my feelings, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social/Behavioral</th>
<th>Cognitive/Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exs.: relationships have improved, I stick up for my rights, etc.</td>
<td>Exs.: &quot;I am in control.&quot; I no longer have to be perfect, etc.</td>
</tr>
</tbody>
</table>
APPENDIX W

STRESS REDUCTION TRAINING EVALUATION

Please take a few minutes to complete this evaluation. Feel free to add any comments.

Thank you for your help.

The experience(s) which were the most helpful to me during this training program were (choose as many as apply):

- Relaxation training
- Assertiveness training
- Self-expression training
- Rational thinking training
- Time management training
- Decision making training
- Goal setting training
- Other

Briefly explain why:

The experience(s) which were the least helpful to me during this training program were (choose as many as apply):

- Relaxation training
- Assertiveness training
- Self-expression training
- Rational thinking training
- Time management training
- Decision making training
- Goal setting training
- Other

Briefly explain why:
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