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# Children's Anxiety Management Program (C.A.M.P.): A Year Long Study of a Preventive Stress & Anxiety Program for Children

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1985

Children's Anxiety Management Program (C.A.M.P.):  
A Year Long Study of A Preventive Stress and Anxiety  
Program for Children

A Thesis

Presented to the Faculty of the  
Department of Psychology  
Western Kentucky University  
Bowling Green, Kentucky

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

by  
Karen Sue Witty  
August 1985

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CHILDREN'S ANXIETY MANAGEMENT PROGRAM (C.A.M.P.); A YEAR  
LONG STUDY STUDY OF A PREVENTIVE STRESS AND ANXIETY  
PROGRAM FOR CHILDREN

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	vi
ABSTRACT.....	vii
CHAPTERS	
I. INTRODUCTION.....	1
II. REVIEW OF THE LITERATURE.....	7
Stress.....	7
Anxiety.....	11
Coping.....	12
Stress Management Programs for Children.....	14
Primary Prevention.....	17
Summary.....	18
III. METHOD.....	20
Subjects.....	20
Instrumentation.....	20
Children's Anxiety Management Program....	20
Subjective Units of Discomfort Scale....	22
Children's School Questionnaire.....	22
Procedures.....	23

Design.....	25
Statistical Analysis.....	25
IV. RESULTS & DISCUSSION.....	27
Summative Evaluation.....	27
Formative Evaluation.....	27
Discussion.....	33
Suggestions for Future Research.....	36
V. SUMMARY.....	40
REFERENCES.....	43
APPENDIX.....	52
Appendix A.....	53
Letter to Parents of Students.....	53



LIST OF TABLES

<u>Table</u>	<u>Page</u>
Table 1. Analysis of Variance Summary Table: Groups (fifth vs. sixth grade) by Trials (School Anxiety vs. Self-Disparagement vs. Defensiveness CSQ subscales).....	28
Table 2. Means of the Difference Scores for Groups by Trials in z Score Form.....	29

Children's Anxiety Management Program (C.A.M.P.): A Year  
Long Study of A Preventive Stress and Anxiety Program for  
Children

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The Children's Anxiety Management Program (C.A.M.P.) was designed as a preventive program to be carried out over an academic year with fifth and sixth grade children. The program was designed to help teach the children different methods of coping with stress and anxiety. It was written in a curriculum format allowing for integration into a daily classroom routine. Eighty-seven children were pretested and posttested with the Children's School Questionnaire (CSQ) which measured these factors: School Anxiety, Defensiveness, and Self-Disparagement. The CSQ along with student and teacher kept logbooks aided in the final evaluation of C.A.M.P.. The statistical evaluation of the program consisted of a mixed factorial ANOVA (two grade levels by three CSQ factors). The results showed that there were no significant differences at the .05 alpha

level between groups (fifth vs. sixth grade) or within groups (School Anxiety vs. Defensiveness vs. Self-Disparagement measures). Neither was there a significant groups by trials interaction. Program modifications and opportunities for further research are presented.

## CHAPTER I

### Introduction

Childhood is a period of rapid changes and increasing responsibilities for children (Grant & Grant, 1982). It is a time when children experience increasing stress. Stress is a general term for which few experts have the same definition (Selye, 1982). Teachers have helped define stress for children by the use of several key terms such as pressure, tension, frustration, anxiety, and strain (Humphrey & Humphrey, 1981). Chalmers (1981) and others define stress as judging whether the environmental and/or internal demands go beyond the individual's resources to manage them (Holroyd & Lazarus, 1982; Schultz & Heuchert, 1983).

Effects of stress are manifested in children in a number of ways: physically, behaviorally, and cognitively. Estimates reveal that approximately 20 percent of the United States child population has been negatively affected by stress present in everyday life (Zaichkowsky & Zaichkowsky, 1984). If a resolution cannot be reached for the stressful situation, or troublesome circumstance in the child's life, then physical changes occur (Sylwester,

1983). Some physical changes are: dizziness, nausea, sweating, rapid heart beat, increase in blood pressure, dilation of the pupils, stomach "knotting" up, chest tightness, and swallowing difficulty (Humphrey & Humphrey, 1981; Sieber, O'Neil, & Tobias, 1977). Statistical findings indicate that stress is the main cause for the increased occurrence of many physical disorders such as cardiovascular disease, ulcers, hypertension, diabetes, and asthma in children (Decker, Williams, & Hall, 1982; Selye, 1982; Zaichkowsky & Zaichkowsky).

Children can behave and think irrationally when a stressor is not removed. In a classroom some children may become hostile toward their peers, teachers, and/or subject matter (Lighthall, 1964). Other children in a classroom may be in a constant state of bewilderment or daydream excessively. Highly stressed children are self-disparaging, unadventurous, and frequently depressed (Gaudry & Spielberger, 1971; Lighthall, 1964; Thoresen & Eagleston, 1983). Severe and prolonged stress is like a "bump on the head" which causes confusion and leaves little chance for learning (Schechter, 1980).

Children will likely experience many stressful events in their lives. How children deal with these experiences, not the number of stressful events, will determine the long term effects of stress (Rutter, 1983). A certain amount of stress is necessary and beneficial for an individual's

survival, therefore not all stress is "bad," but stress does require a certain amount of adaptation (Chalmers, 1981; Richter & Sloan, 1979; Smith & Selye, 1979).

The way people cope with stress is important to their overall attitudes, social functioning, and health (Rutter, 1983). Coping is how people attempt to manage threatening conditions in the environment, or their own internal appraisals of various situations, so that threatening feelings are diminished (Holroyd & Lazarus, 1982; Humphrey & Humphrey, 1981; Rutter, 1983). Inadequate coping among children has been demonstrated by social withdrawal, substance abuse, truancy, low self image, and feelings of being a failure (Thoresen & Eagleston, 1983).

When stress management skills are taught to an individual they help in the attainment of some control over stressful situations. In other words, stress management training may help individuals learn how to cope effectively with stress (Stoyva & Anderson, 1982). Children need their parent(s), teacher(s), and significant others to help them learn how to cope with stress in order to adapt and survive in the environment (Frymier, 1968; Leiderman, 1983). Adaptive coping should be "self-stimulating, and self-reinforcing so that ultimately it is self-sustaining and self-enhancing" (Schultz & Heuchert, 1983).

There are many different formats that aid in teaching stress reduction strategies. Most programs are being used

primarily to treat adults and children who already have difficulty dealing with stress (Barrios & Shigetomi, 1979; Decker, Williams, & Hall, 1982; Foreman, 1982; Fox, Houston, & Pittner, 1983; France & McDowell, 1983; Humphrey & Humphrey, 1981; Jacobson, 1938; Nocella & Kaplan, 1982; Silver & Blanchard, 1978; Vaughn & Ridley, 1983; Zaichkowsky & Zaichkowsky, 1984). These formats may include some or all of the following procedures: progressive muscle relaxation (Stoyva & Anderson, 1982; Jacobson, 1938; Zaichkowsky & Zaichkowsky, 1984); guided imagery (Zaichkowsky & Zaichkowsky); biofeedback (Stoyva & Anderson; Zaichkowsky & Zaichkowsky); meditation (Stoyva & Anderson; Zaichkowsky & Zaichkowsky); self hypnosis (Zaichkowsky & Zaichkowsky); problem solving (France & McDowell; Vaughn & Ridley); self statement modification (Fox, Houston, & Pittner; Stoyva & Anderson); assertiveness training (Stoyva & Anderson); and systematic desensitization (Stoyva & Anderson).

From many students' point of view they have to "make it" in school or fail. This could initiate a constant "flight or fight" response on the part of the students causing them to perform less optimally in school, and may even contribute to health related problems (Zaichkowsky & Zaichkowsky, 1984).

The school is the place where educators train children to be more than what they were when they entered (Schultz &

Heuchert, 1983). The teacher is then viewed as the central figure in this process of education (Schultz & Heuchert). Adults and children alike cope mainly in a haphazard fashion. It appears logical to teach coping skills where natural opportunities are present for preventive mental health work, e.g., the school setting (Barrios & Shigetomi, 1980). Educators need to go beyond the "three Rs" and, in addition, effect changes in students' health, life style, and academic performance (Fleming, 1966a; Frymier, 1968; Zaichkowsky & Zaichkowsky, 1984). Schools need to function as stress reducing agents instead of, as in many cases, stressors. By incorporating a stress management program into the curriculum, the schools could be aiding the children in acquiring stress management skills before the children experience any major difficulties in coping with stress (France & McDowell, 1983; Segal, 1983; Sylwester, 1983).

A major theme in this thesis was that of primary prevention. The definition of primary prevention adhered to was Herner's (1981):

"...interventions in the environment to eliminate or modify the psychological stress before it has had a chance to affect children, and interventions to protect children from the impact of psychological stresses by building up their resistance to their personality strength" (p. 2).



Utilization of medical primary prevention techniques (e.g. vaccinations) has been found to be very effective in educational settings. So, too, should psychological primary prevention techniques find educational settings needing these type of prevention techniques in education.

In the available literature there is a lack of research and evaluation on stress management programs to help children understand stress. The Children's Anxiety Management Program (Herner, 1981; Pfohl, 1979) is a program developed specifically for children in the 4th through the 6th grades to help them develop skills to cope effectively with stress and anxiety. The purpose of this thesis was to help children gain an understanding of the concept of stress and learn some methods for coping with stress. This purpose was to be accomplished by the implementation of the primary prevention stress management program, Children's Anxiety Management Program.

## CHAPTER II

### Literature Review

Homework assignments, tests, project presentations and/or making friends can prove to be stressful experiences for a child. Schools are expected to teach the basics, reading, writing, and arithmetic. Many professionals feel the need to expand beyond these goals and help the children learn how to deal with everyday problems they encounter (Fleming, 1966a; Frymier, 1968; Zaichkowsky & Zaichkowsky, 1984). These problems or stressful events cannot be eliminated; therefore, methods of coping need to be taught to the children in order to prevent future maladaptive behaviors.

#### Stress

In engineering, when blueprints are devised for construction, engineers are able to calculate the degree of "stress and strain" an object can withstand over a period of time. When human behavior has been studied, the calculation of the "stress and strain" capacity has not been such a simple matter (Chalmers, 1981). Many researchers have referred to recent times as the "Age of Stress" (Selye, 1982).

What does stress mean in terms of human behavior? Some professionals have stated that stress is just a general term and the meaning is not specific. Researchers have indicated that stress is some unpleasant event or circumstance that impinges on a person with long-term probability of negative implications (Selye, 1982). Dr. Hans Selye defined stress as a "nonspecific response of the body to any demand" (Selye; Humphrey & Humphrey, 1981). This nonspecific response has been described as a sequence of responses entitled the General Adaptation Syndrome (GAS) (Selye). The sequence consists of an initial alarm reaction, followed by the organism's resistance (Selye). If the stressor was not removed, exhaustion followed, and eventually the death of the organism (Selye).

Other authors have gone so far as to label definitions of stress as physical, psychological, or cognitive. Physical stress was described as the limit to which an organism can manage, a given force or influence, and also the wear and tear on an organism due to external factor(s) (Humphrey & Humphrey, 1981). Also, stress was defined as a demand placed on people that taxes their capacity to function which leads to physical deterioration (Schultz & Heuchert, 1983).

Medical research had shown that stress related diseases are on the increase and blames 50-80 percent of all disease occurrences on stress (Shure & Spivack, 1981). Other

research findings indicated that stress related diseases are almost to an epidemic state (Zaichkowsky & Zaichkowsky, 1984). Estimates of a 1979 study reported by Zaichkowsky and Zaichkowsky showed that approximately 20 percent of the child population was negatively affected (physically, psychologically, and socially) by some stressor. Some links between stress and certain disorders have been found in children such as ulcers, cardiovascular disease, asthma, cancer, hypertension, headaches, diabetes, and arthritis (Decker, Williams, & Hall, 1982; Shure & Spivack; Thoresen & Eagleston, 1983). Some of these disorders have rarely occurred. However, some, such as hypertension and depression, have occurred as frequently as in one out of every 10 children (Thoresen & Eagleston). Hence children are affected by the pressures involved in everyday life. In other words, over time, stress has resulted in both physical and emotional breakdown for many individuals (Baum, Singer, & Baum, 1981; Decker, Williams, & Hall).

Along with physical stress is psychological stress. Psychological stress occurred when an individual perceived that the environmental and/or internal demands exceeded his/her abilities to manage them (Holroyd & Lazarus, 1983). This then lead to a breakdown in adaptive behavior in extreme situations (Holroyd & Lazarus).

Cognitive stress is related to psychological stress in that people are aware of their limited knowledge and

problem solving abilities. This resulted in their feeling stressed (Janis, 1982).

Stress has been defined as a built in safety function in times of danger (Richter & Sloan, 1979). As Selye (1982) stated the perceived danger triggers an alarm reaction then resistance. Therefore, we do not sit passively by as we are attacked (Decker, Williams, & Hall, 1982; Selye; Humphrey & Humphrey, 1981). This alarm reaction was to help us maintain contact with our environment (Schultz & Heuchert, 1983). Stress, too, does not only occur with a dangerous or threatening situation but it could appear during a pleasant situation (e.g., Christmas) which requires some adaptation (Chalmers, 1981). When stress is prolonged and a person's capacity to withstand it is depleted, then negative consequences could occur such as the previously mentioned medical disorders (Shure & Spivack, 1981).

Stress has been said to be due to many different agents, and each person's capacity to deal with these agents differs (Fleming, 1966b). The effect of stressful situations on individuals has been said to be dependent upon how they cope with them and their perceptions of them (Baum, Singer, & Baum, 1981; Humphrey & Humphrey, 1981; Schultz & Heuchert, 1983). Children will no doubt encounter many stressful experiences in their life times. Their successes or failures in handling these experiences

will have a greater impact on their futures than the number of stress laden experiences encountered (Rutter, 1983).

### Anxiety

Anxiety has been defined as a reaction evoked by some form of stress, either an external stimuli or internal beliefs that are comprehended as threatening (May, 1977; Spielberger & Sarason, 1975). Therefore, anxiety has been said to be a progression of cognitive, affective, and behavioral occurrences (Spielberger, 1975). Freud also defined anxiety as the ego's reaction to danger (Schecter, 1980). Spielberger (1966) defined two categories of anxiety, one which was state (situational) and the other trait (chronic). Anxiety, as a whole, has been labeled a transitory state which depended upon the cognitive interpretation by the individual of the circumstance(s) (Barrios & Shigetomi, 1979).

Anxiety has been and will continue to be a necessary part of our existence because it does protect us from dangers that threaten our existence (Humphrey & Humphrey, 1981; May, 1977; Sieber, O'Neil, & Tobias, 1977). This reaction, however, sometimes has not functioned in an adaptive way and therefore becomes debilitating to the individual (Sieber, O'Neil, & Tobias). The difficulty has been keeping anxiety at adaptive levels so that one still enjoyed life (May). Schecter (1980) compared debilitating anxiety to a bump on the head which caused confusion and

little drive for recollection or learning.

Several physical symptoms of anxiety have been described by researchers. Some physical symptoms found are dizziness, nausea, perspiration, rapid heart beat, increased blood pressure, dilated pupils, swallowing problems, and a tight feeling in the chest (Humphrey & Humphrey, 1981; Sieber, O'Neil, & Tobias, 1977). Compared to less anxious children, highly anxious children exhibited more problematic social and behavioral actions such as being self-disparaging, unadventurous, daydreaming, low academic performance, and, overall, possession of more negative personality traits (Gaudry & Spielberger, 1971). Severe or overpowering anxious feelings have been found to be counterproductive because they produced avoidant behavior. However, anxiety has been shown to have positive effects in that it may encourage acquisition of a new skill or aid in development of a higher stage of psychological growth (Sieber, O'Neil, & Tobias). Anxiety, then, has created a need for change in order to avoid discomfort.

#### Coping

Over the past several years research has shown that physical stressors may not be as significant as other forms of stressors for an individual (Levine, 1983). The effect that stressors have on an individual depended to a great extent on the individual's coping style (Stoyva & Anderson, 1982). People attempting to manage threatening

circumstances in their environments and to alter their own perceptions so they will not seem as threats is defined as coping (Holroyd & Lazarus, 1982; Rutter, 1983). Children have not learned to cope with stress as well as adults have because children's skills of coping are limited by their experiences and knowledge (Humphrey & Humphrey, 1981). Children depended upon their social matrix (eg. parents, teachers, other adults, friends) to teach them how to cope (Frymier, 1968). Research has revealed that the ways people cope with stress will affect how they conduct themselves morally, socially, and physically. Children's conduct in these realms does not depend on the frequency of stressful experiences but how they cope with each experience (Frymier; Rutter).

Active coping has been called an adaptive process in which an individual is successful in adapting to stressful environmental conditions (Levine, 1983; Mobily, 1982; Schultz & Heuchert, 1983). Current stress management programs have helped children develop coping skills so they can be applied to specific or various stressful situations (Schultz & Heuchert). Stress management, then, implied gaining active control over stress (Stoyva & Anderson, 1982). The type of control employed can be as varied as the stressor(s) encountered. There have been numerous coping techniques developed that can be employed to handle different stressful and anxiety provoking circumstances.



Some ways of coping are modeling (Meichenbaum, 1975; Stoyva & Anderson), positive self talk (Nocella & Kaplan, 1982; Stoyva & Anderson), relaxation (Benson, 1983; Grossman, 1984; Stoyva & Anderson), and problem solving (Baum, Singer, & Baum, 1981; France & McDowell, 1983; Platt, Spivack, Altman, & Altman, 1974; Shure & Spivack, 1981; Vaughn & Ridley, 1983). Stress management training programs have included all or some of the above mentioned methods. Acquisition of anxiety reducing techniques, such as the many mentioned above, early in life should help reduce stress related disorders in later adulthood (Grossman).

Childhood has been called a period of rapid growth in which the development of skills, insights, and special abilities needed to be achieved (Grant & Grant, 1982). Learning to cope and adapt during childhood, then, has been said to be a learning process in which the child acquired coping skills through observation of his/her elders (Leiderman, 1983). Many individuals have coped with stress in a haphazard manner. It would appear sensible to systematically teach adaptive coping skills to children (Barrios & Shigetomi, 1979).

#### Stress Management Programs for Children

The literature concerning stress management programs for children has been very scarce. However, research on stress management programs has been on the increase (Segal,

1983). Several programs developed for stress disordered adults have established the foundation for children's programs. Initially, Edmund Jacobson (1938) published a program entitled Progressive Muscle Relaxation with the aim of controlling reflexes. He later generalized this method to help people relax during stressful situations of everyday life. Cameron and Meichenbaum (1982) developed a three stage Stress Inoculation Program for individuals which included progressive muscle relaxation in the Rehearsal phase, in which the individuals practiced their skills, but it also required two additional phases, an Educational phase and an Application phase. These two additional phases helped individuals to better understand and cope with stress, and also provided a chance for the therapist to monitor whether new behaviors were acquired (Foreman, 1982; Stoyva & Anderson, 1982).

Problem solving programs have been created for children from four years of age, who are in Head Start, to high school age students (France & McDowell, 1983; Segal, 1983; Shure & Spivack, 1981). Each of these programs focused on prevention but really did not encompass the educational phase of a prevention program. Many types of programs such as tension control (Zaichkowsky & Zaichkowsky, 1984), cognitive expansion (Fox, Houston, & Pittner, 1983), systematic desensitization (Barrios & Shigetomi, 1980), and meditation skills (Schultz & Heuchert, 1983) have been

developed. However the main focus of these programs is not on prevention; rather, it is on the already troubled child.

The stress management programs that have been developed for children promoted mental and emotional health. However, they did not give the children knowledge about stress, the long term consequences of stress, or how to develop more effective coping skills. Three such examples of stress prevention programs are Magic Circle Program (Palomares & Rubini, 1983), the Primary Mental Health Project (Cowen & Lorion, 1975), and Kiddie Quieting Reflex (Stroebe, Stroebe, & Holland, 1980). Either formal evaluations of these programs have not been made or only short term effects were assessed. Kiddie QR was endorsed by the National Education Association, but no formal evaluation was made of this tension reduction program which utilized taped relaxation exercises (Zaichkowsky & Zaichkowsky, 1984).

Recent literature does not yield a definitive program which has been researched and directed at helping the child understand the concepts of stress. Such a program, if successful, would yield a population better educated on stress concepts and better prepared to deal with stress (Segal, 1983). The Children's Anxiety Management Program (Herner, 1981; Pfohl, 1979; Ronnerman, 1985) has been suggested as a pattern for such a program. The goal of C.A.M.P. was to help children improve socially and

academically by helping teach children skills to cope with stress more effectively (Herner; Pfohl; Ronnerman; Segal). Techniques used during the C.A.M.P. instruction are those found effective in a therapeutic setting such as progressive muscle relaxation, problem solving, imagery, modeling, stress inoculation, and cognitive restructuring (Herner; Pfohl; Ronnerman; Segal). Therefore, C.A.M.P. would suggest an extensive prevention curriculum for children before any maladaptive behaviors became a permanent part of the children's personality and behavior.

#### Primary Prevention

Estimates stated that approximately 50-80 percent of all illnesses are in some way stress related (Humphrey & Humphrey, 1981). Healthy outcomes from stressful life experiences have been found to be the result of effective coping (Holroyd & Lazarus, 1982). Many programs which have taught effective coping skills are focused on adults who have already established faulty coping techniques (Zaichkowsky & Zaichkowsky, 1984). Early identification and instruction for children who appeared at-risk for possible development of coping difficulties would decrease the need for expensive interventions in the future (Michelson, Mannario, Marchione, Stern, Figueroa, & Beck, 1983). The schools are seen as a setting for such a prevention program (Sieber, O'Neil, & Tobias, 1977).

Before a program of this type can be effective, it is

important to realize that the problems have not appeared suddenly; they are an accumulation of day to day problems in a normal routine (Kanfer & Busemeyer, 1982). Hence, the time to provide help is not after a problem has been diagnosed but before one is developed. Theoretically, schools could be viewed as ideal settings for the implementation of stress management programs.

#### Summary

Children and adults are affected by stress in many of the same ways. The removal of stress from children's lives has been said not to be a healthy or wise goal. So, techniques which are designed to teach them how to cope adaptively with stress are necessary. Presently, there are few, largely unresearched, prevention programs which teach stress management techniques to children.

The purpose of this thesis was to implement C.A.M.P. (Herner, 1981; Pfohl, 1979; Segal, 1983) within the time frame of one academic year utilizing only one instructor and attempting to determine the program's effect on the children's anxiety. One instructor was used to eliminate instructor differences as multiple instructors had been used in previous research. The main goal of this program was not to eliminate stress in the children's environment but to teach them how to manage it. C.A.M.P. was designed to be used with fourth, fifth, and sixth graders who are at a transitional stages, cognitively, socially, and

emotionally, between elementary and junior high school. The fifth and sixth grade subjects used in this study were selected on the basis of availability. It was hypothesized that after completing C.A.M.P. the children's anxiety would be significantly reduced and they would have acquired skills for helping them cope with anxiety and stress where or when it arises. This present research was intended to add to the data base of C.A.M.P. by investigating another presentation format.

## CHAPTER III

### Method

#### Subjects

Subjects were 87 students enrolled in the two fifth grade classes and one sixth grade class at an elementary school in Bowling Green, Kentucky. The fifth grade classes consisted of 36 males and 26 females. The sixth grade class consisted of 11 males and 14 females.

Socioeconomically, most subjects were from middle or upper class families. The gender of the participants was not considered in the analyses because previous research indicated that there was not a significance difference between them (Herner, 1981).

#### Instrumentation

##### Children's Anxiety Management Program (C.A.M.P.)

C.A.M.P., a prevention program developed for the use in the fourth through sixth grades, was designed to help children learn to adequately cope with everyday stressful events in school and in their personal lives (Pfohl, 1979). C.A.M.P. has five primary components: (a) an introduction to the program, (b) physiological, (c) cognitive/psychological, (d) social/behavioral, and (e)

generalization and follow-up. Each component included a rationale, goals, and activities. The rationale explained the background and reasoning for each goal. The goals outlined the major objectives to be reached within each component. Each objective required the students to complete several activities. The accomplishment of these activities enabled the student to reach the desired goal. It was the activities that the researcher monitored to ensure that the goals were attained. The monitoring of the goal attainment was done as a part of the formative evaluation.

C.A.M.P. was a curriculum based program to be implemented by a classroom teacher, known as the instructor, as part of his/her daily class routine. Curriculum based means C.A.M.P. had both skill and knowledge components with specified goals and activities that were taught to the students. The instructor was provided with a copy of the C.A.M.P. manual (Herner, 1981; Pfohl, 1979) and an instructor logbook. In the logbook the instructor recorded data on the amount of time required to complete each activity, successes, problems which occurred, and suggestions for program improvement. Students were also required to keep a logbook in which they recorded the date of completion of each activity, class lists, personal lists, problem solving examples, and Subjective Units of Discomfort Scale (SUDS) ratings. These logbooks were



monitored only by the researcher and not by the instructor. The logbooks were intended to help in the formative evaluation process of the specific components, goals, and activities of C.A.M.P.

#### Subjective Units of Discomfort Scale (SUDS)

The Subjective Units of Discomfort Scale (SUDS) is a self report rating scale for describing anxious feelings. The scale ranged from 0 (totally relaxed) to 100 (most tense). The children were to individually rate themselves on how they felt before and after each class relaxation session as an indicator of their ability to relax.

#### Children's School Questionnaire (CSQ)

The Children's School Questionnaire (CSQ) contains 198 questions which are equally divided into three forms consisting of 66 questions each. The questions were all read orally to the children. They marked their responses on an answer sheet which provided the options.

Some statements on the CSQ were taken from the Achievement Anxiety Scale, the Audience Anxiety Scale, the Children's Personality Questionnaire, the Defensiveness Scale for Children, and the Anxiety Scale for Children. The remainder of the statements are from Phillips' USOE grant report, An Analysis of Causes of Anxiety Among Children in School (1966).

Three CSQ subscales of interest to this study were (a) School Anxiety, (b) Defensiveness, and

(c) Self-Disparagement. The stability of these subscales had been determined by using the Pearson Product-Moment correlation technique (Phillips, 1966). Phillips found that the stability coefficient ranges over a year's time for the variables were School Anxiety  $r = .63$  to  $.74$ , Defensiveness  $r = .28$  to  $.54$ , and Self-Disparagement In Relation To Peers  $r = .16$  to  $.23$ . Internal consistency reliability for the CSQ was calculated by the Kuder-Richardson 20 technique. The reliability ranges for the subscales were School Anxiety  $.95$ -. $.96$ . Defensiveness  $.54$ -. $.86$ , and Self-Disparagement In Relation To Peers  $.47$ -. $.96$  (Phillips, 1966).

#### Procedures

This particular study was conducted over an academic year from August 1983 to May 1984. Each session of the program was planned to take 15 to 20 minutes two to three times a week depending on the class curriculum. Five primary goals were to be met during that period of nine months. The goals were (a) to train the teacher in the skills of C.A.M.P., (b) to help the teacher develop sensitivity toward students' needs during stressful and anxiety provoking situations, (c) to instruct the children in skills which will help improve their coping with stress and anxiety, (d) to evaluate the program in changing students' anxiety and stress, and (e) to ensure that the program was implemented as intended.

In this study, one instructor, a classroom teacher, conducted C.A.M.P. in her classroom. Each of the three class groups involved in the study had the C.A.M.P. instructor at least one period a day for a particular subject. During that period in which the individual class had this instructor, C.A.M.P. would be conducted. The C.A.M.P. instructor in this study held a Bachelor of Science in Teaching, a Master of Science in Elementary Education, and an Educational Specialist Degree in School Administration. A single instructor was employed in this study in order to control for the effects of individual instructor differences on the students' outcomes. This instructor volunteered for the position.

The researcher used a consultation model in training the instructor. The instructor was trained throughout the year in each specific component of C.A.M.P. prior to the classroom implementation. The amount of time between when the instructor was taught the components of C.A.M.P. and when she actually taught the students varied because of schedule conflicts between the instructor and researcher. The researcher was available whenever the instructor had questions or needed assistance with a particular activity. Further job requirements of the researcher were conducting "make-up" sessions for students who were absent, and the evaluation of the program. The evaluation consisted of pretesting and posttesting with the Children's School

Questionnaire (CSQ) and monitoring the students' and instructor's logbooks. Monitoring consisted of periodically examining the logbooks to ensure that the students understood the written activities and that the instructor was not encountering any difficulties. This approach would help monitor the program's implementation. The researcher had a Bachelor of Science degree in biology. She was trained by the author of C.A.M.P. (Pfohl, 1979).

### Design

The study assumed a pretest/posttest no control group design. Pretest data functioned as a baseline upon which to evaluate changes in anxiety following treatment.

Permission for participation in the program was obtained by sending the parent(s)/guardian(s) of each child a letter explaining the program (see Appendix A). If they had any questions the phone numbers of the principal and supervising faculty member were provided. Since no parent(s)/guardian(s) questioned the program all students were participants.

### Statistical Analysis

A two factor mixed ANOVA was used to examine the effects of the treatment program. The between subjects factor was grade (fifth vs. sixth). The within subjects factor or repeated measure was School Anxiety vs. Self-Disparagement vs. Defensiveness. Difference scores, i.e., the difference between pretest and posttest scores,

were the unit of analysis. Difference scores were used because the results of independent t-tests conducted on the pretest data indicated no initial between group differences. The ANOVA required the conversion of all raw scores to z scores so that the scores across the CSQ subscales could be compared. Any effect yielding an alpha level less than .05 was considered nonsignificant.

## CHAPTER IV

### Results and Discussion

#### Summative Evaluation

The two (groups: fifth vs. sixth grade) by three (trials: School Anxiety vs. Self-Disparagement vs. Defensiveness CSQ subscales) mixed factorial or repeated measures ANOVA indicated (a) no significant main effect for groups,  $F(1, 85) = .003, p < .05$ ; (b) no significant main effect for trials,  $F(2, 170) = .002, p < .05$ ; and (c) no significant groups by trials interaction,  $F(2, 170) = .001, p < .05$ . The ANOVA summary table appears in Table 1. Difference score means for groups by trials are shown in Table 2 in z score form.

#### Formative Evaluation

Formative evaluation consisted of monitoring the four major goals of C.A.M.P., using the logbooks, and the training of the instructor and students in the skills of C.A.M.P. The researcher conducted this evaluation by close observations of the instructor and students and also by periodically checking both the instructor's and students' logbooks.

The four major goals of C.A.M.P., again, are

TABLE 1

Analysis of Variance Summary Table: Groups (fifth vs. sixth grade) by Trials (School Anxiety vs. Self-Disparagement vs. Defensiveness CSQ subscales)

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Total	236.7	260			
Between	61.5	86			
Groups	.002	1	.002	.003	n.s.
Error	61.5	85	.724		
Within	175.1	174			
Trials	.004	2	.002	.002	n.s.
Gr x Tr	.002	2	.000	.000	n.s.
Error	175.1	170	1.030		

TABLE 2

Means of the Difference Scores for Groups by Trials  
in z Score Form

Groups	<u>Trials</u>		
	School Anxiety	Defen- siveness	Self- Disparagement
Fifth grade (N=62)	.005	.014	.000
Sixth grade (N=25)	-.000	-.000	.000

(a) to have the students understand the C.A.M.P. program, (b) to train the children in muscle relaxation procedures, (c) to have children learn three cognitive skills to help them cope with stress and anxiety, and (d) to have children develop social behaviors which will facilitate their actively coping with stress and anxiety. The first goal was met by explaining the meaning of C.A.M.P. to the children. This explanation generated animated discussion indicating that the children were interested and understood what C.A.M.P.'s overall goals were. Initially the instructor felt the students had some difficulty understanding the four goals because of the language level in which they were written. Thus, a suggestion was to rewrite them on a lower level. During this program the



children individually put the goals into their own words so they were more understandable.

Goal two was training the children in muscle relaxation. The instructor and researcher found this to be a new experience for the children. This component required a lot of individual assistance to help the students differentiate between tense and relax muscles. It was observed that the sixth graders acquired these skills more quickly than the fifth graders. In monitoring the students' Subjective Units of Discomfort Scale (SUDS) the researcher found that the majority of students' SUDS levels did decrease after the relaxation procedure which was an indicator of their increased ability to relax. Overall, this component appeared to have been achieved.

Goal three, to have the children learn three cognitive skills to help them cope with stress and anxiety, seemed to be difficult for the children because of the need to be specific when utilizing the cognitive skills. Their logbooks and class discussions revealed this problem by their vagueness in listing problems encountered and possible alternate solutions. Special efforts such as additional examples given in class and individual help were made to help emphasize the need to be more specific. After some practice most individuals, as seen by their logbooks and verbalizations, seemed to understand these skills.

The last goal was to have the children develop social

behaviors which would help them cope with stress and anxiety. This goal was completed hurriedly because of the time factor that school was almost over. The children participated and observed situations that provoked stress and the use of coping techniques during these situations. Neither the researcher nor the instructor can adequately say that the students incorporated these strategies into their lives because an inadequate observation period was not available.

Another significant part of the formative evaluation was the logbooks of the instructor and students. First, the student logbooks revealed to the researcher whether or not the children understood the concepts being taught and what topics needed special attention. These were very helpful in determining if the classes understood the SUDS levels, problem solving steps, and identification of anxiety provoking situations. Many students did find the logbooks troublesome because they perceived an excess of available writing space and felt a need to fill it. Many times only a sentence or two was necessary. The instructor's logbook was to be a valuable source of information on how long each section took to complete, any problems encountered, any successes achieved, and any suggestions for improvements that the instructor felt would help. The present instructor seemed to have some difficulty in keeping her logbook up to date. Therefore,

the researcher was not able to consistently check on any successes, failures, or difficulties encountered by the instructor.

The formative evaluation also included the training of both the instructor and students in C.A.M.P. The instructor was trained by the researcher before the instructor trained the students. This method of training was done so that the instructor, ideally, would have time to practice the skill and serve as a role model for the students. This training period would also serve as a time to anticipate any difficulties that an individual or a group of students might have.

The student training was done by the instructor after she had been instructed in the skills for the next lesson. The instructor was to do this training because she was a familiar individual to the students and could possibly elicit more cooperation than could a stranger. The training sessions were to be done two to three times a week during a regular class period. The instructor's structured lecture style seemed to inhibit many of the students during the C.A.M.P. instruction time. She had a difficult time helping the students relax. When helping them achieve the goals a tense atmosphere prevailed which was not conducive for the acquisition of that knowledge component.

The summative and formative evaluations present a picture of the statistical results and findings from

observations of the students, instructor, and researcher on C.A.M.P.

### Discussion

The data analysis showed that School Anxiety, Self-Disparagement, and Defensiveness were not effected by the treatment. These results could be due to one or any combination of several factors or to something not seen by the researcher. Some factors considered were the single instructor, the students' attitudes toward the teacher, the psychometric properties of the instrumentation used, the group of subjects employed, and the time frame of the program.

The single instructor utilized in this project eliminated possible instructor differences, a difficulty present in previous research (Herner, 1981). The single instructor did bring into focus some other trouble areas. One area was in the instructor's application of C.A.M.P. The instructor appeared not to consider C.A.M.P. as essential in regard to the children's education. C.A.M.P. was implemented and looked upon as an addition to the coursework, thus the program was not fully incorporated into the curriculum as it was intended to be. The instructor was to be a role model for the children by participating in the program. The instructor, however, did not appear to integrate C.A.M.P. into the classroom teaching technique as intended. The instructor's erosion

of commitment and motivation about the research may have been a damaging factor. Other implementation concerns involved the instructor's method of testing the students over some of the activities in C.A.M.P., even after the researcher informed her that testing was not a part of C.A.M.P. Also when the instructor was conducting the relaxation sessions she commanded the children to relax which seemed to inhibit their ability to do so.

Initially the students, as with anything new, had their curiosity and interest piqued. However, as the instructor's motivation and interest appeared to wane, so did the children's. This decrease in motivation happened approximately 1/3 into the school year, when many of the children seemed to develop a strong dislike toward the instructor. They may have associated C.A.M.P. with the instructor, causing their enthusiasm to give way to dislike.

Many students verbalized that they did not want to come to the instructor's class nor were they going to enjoy anything done in the class. The strong dislike of C.A.M.P. could have been due to the atmosphere in which it was conducted. Therefore, problems with the instructor and students likely decreased the potential effectiveness of C.A.M.P.

Another factor, besides the invalid implementation of C.A.M.P. and the instructor's and students' motivation, which could have affected the results is the psychometric

qualities of the CSQ. The three subscales considered on the CSQ, School Anxiety, Self-Disparagement, and Defensiveness, were assumed to measure the treatment effects of C.A.M.P. C.A.M.P. was to affect the students' anxiety levels by teaching them relaxation, problem solving, imagery, and cognitive restructuring. The CSQ was to measure the change from pretest to posttest conditions or these various treatment forms in C.A.M.P. Items on the CSQ did not reflect any of these forms of treatment present in C.A.M.P. It would appear, then, that the CSQ does not measure what C.A.M.P. was intended to affect. The instrument used for analysis of C.A.M.P., the CSQ, may have been inadequate for this study.

The nonsignificant results could be further explained by the group of students used for the study. These students were not classified as an "at risk" group for stress disorders. If it is assumed that the CSQ does measure the effects of C.A.M.P. and the group of students treated was not "at risk," then the results should not show a significant change from pretreatment to posttreatment. Thus, the fact that this group was not "at risk" could explain that some of the skills of C.A.M.P. appeared to have been learned by the students but the results from the collected data were nonsignificant.

The generalization period which was a part of C.A.M.P. never was implemented. The students, then, did not have

time to generalize their newly acquired skills under the supervision of the instructor. This generalization period was to ensure that the students had time to practice their new skills and that they were properly implementing them. The reason that this component was not implemented was due to the fact that the school year came to an end. Hence, time was also a factor in the results.

The intent of this thesis was to implement C.A.M.P. over its intended time frame, an academic year (Pfohl, 1979). The difficulty encountered was that some of the components were rushed and the generalization component was never implemented. This difficulty can be attributed to the instructor not adhering to the arrangements as established at the beginning of the program. C.A.M.P. was to be conducted two or three times a week for one year. Sometimes, however, the instructor would go for a week without conducting C.A.M.P. Thus, the time frame of one year is reasonable for the program if the schedule is followed.

#### Suggestions for Future Research

Some aspects of this study lead the researcher to the following suggested modifications in the application of C.A.M.P. During the application of several sections of C.A.M.P. the class as a whole was to devise a class list of stressful events and coping styles; then individuals were to develop a personal list of similar things. It was

discovered that the class list became the personal list of many of the children; this "copying" of lists was not the objective of the exercise. A more effective means of implementing this activity might be to ask the children to construct their personal list, any child having problems doing this could then be offered individual help. After devising this personal list, then the class list could then be developed from volunteered items from children's personal lists. This approach would help the children think about themselves in developing their own list first rather than copying the class list as their own.

Another difficulty in applying C.A.M.P. was in teaching the instructor the program. Before each session the instructor and researcher met and the instructor was administered the program (C.A.M.P.). Many times there were time constraints in the discussion of the sections so that the researcher was not assured that the instructor understood the goal(s), and the instructor did not appear to apply the new skills to herself. Therefore, the desired goal of the instructor being a role model was not accomplished. A possible solution would be to conduct a C.A.M.P. seminar during the summer. This approach would give the instructors a sample of the procedures needed to conduct C.A.M.P. Those still interested would be asked to donate a set amount of time, before the school year began, in order to learn C.A.M.P. in depth. Within this time



frame, possible difficulties that they might be confronted with and help on how to incorporate the program into their classroom curriculum would be covered. Then by the time the fall session started the instructors, themselves, would have had time to generalize C.A.M.P. into their lives and therefore become better models for the children.

Modification of materials would involve changing the students' logbooks. The instructor and researcher both felt that the logbook contained too much blank space which frustrated the children. The children felt that the pages should be covered with their work when they were finished. On many pages, only a few lines were actually needed. Modifying the logbooks might reduce the children's frustration with them.

Another possibility for research would be to devise another instrument to measure the effects of C.A.M.P. A thorough breakdown of what C.A.M.P. was intended to teach would be the first step. Next an extensive literature search to determine if any instruments existed which could more accurately measure what C.A.M.P. teaches. If no such instrument existed then the development of a new one would be in order. This development could take the form of combining parts of other instruments to make a new one or the development of an entire new scale. Then the appropriate statistical functions would need to be employed to ensure the validity and reliability of the instrument.

With these few modifications, which yield possibilities for future research, C.A.M.P. could be made more functional. It would be functional in the sense that the instructor would be better equipped to instruct the students, giving them a role model to follow. Too, in the rearrangement of the students' logbooks, less frustration would result and the program should run better. These changes and possible research would hopefully modify C.A.M.P. so that the children can better acquire the skills of C.A.M.P. which may help them more effectively cope with stressful situations confronting them.

## CHAPTER V

### Summary

Each day we are in some way confronted by stress which affects us physically, psychologically, and/or cognitively. Stress in each of these three areas involves some demand(s) which many times exceeds the capabilities of the individual to cope with the situation adaptively. This maladaptive coping has been found to be associated with certain diseases in children such as ulcers, headaches, and hypertension. With the mentioning of medical and psychological disorders the notion that stress is always disabling is implied. However, that is not the case. Stress does serve a useful function by operating as a warning system to the body to ready itself in times of danger. Stress becomes harmful when this warning system has been engaged for too long a period of time and too frequently. At that point, it is no longer serving the body but is making excessive demands. Thus, it is important to acquire effective coping skills in order to avoid the possible harmful consequences of stress.

Coping skills are learned from one's social matrix (parents, instructors, friends) (Frymier, 1968). Children

are dependent upon adults and others to learn how to cope in an efficient manner or in a haphazard fashion (Barrios & Shigetomi, 1979). Stress management programs have been developed to teach both adults and children these ways of adaptively coping with stress. Numerous techniques are available but only a few have been developed for children with a preventive approach. Most of the programs for children have not been thoroughly evaluated nor do they help children understand the concept of stress. The Children's Anxiety Management Program (C.A.M.P.) is a model for such a program.

The goal of C.A.M.P. is one of a preventive nature for stress disorders. During the program children are taught skills such as problem solving, progressive muscle relaxation, and coping skills which better equip them to handle stress and understand what stress is. This program was to be implemented as part of a school curriculum for the purpose of reaching the fourth through sixth grade age population before any faulty coping skills become a permanent part of their behavior. Too, the schools offer a large available group which has already been introduced to other primary prevention programs such as vaccinations. So children are a prime target because they are young and still able to be inoculated against stress. This type of intervention has been successful before with this age group (Herner, 1981).

C.A.M.P. was conducted in the present study over an academic year utilizing one teacher and two fifth grade classes and one sixth grade class. Each session was 15 to 20 minutes in length with two to three sessions a week depending on the class schedule. The students' logbooks, instructor's logbook, and the Children's School Questionnaire (CSQ) were the instruments used for collection of data. Three subscales on the CSQ were the main interest on that scale: School Anxiety, Self-Disparagement, and Defensiveness. Data from the CSQ were analyzed using 2 x 3 mixed factorial ANOVA.

Results yielded by the data analysis proved to be nonsignificant, confirming the findings of previous studies (Herner, 1981; Ronnerman, 1985). These statistically nonsignificant results can be the function of several variables, each one singularly or in combination. One source of variance might be the instructor and her seeming lack of commitment to the program. Another might be the students' attitudes toward the instructor and the program. Still another might be the inappropriateness of the instrument used to measure the program's effectiveness.

Some suggestions for future research would be teaching the instructor, in advance, C.A.M.P. so that s/he would have time to generalize it into his/her own life and therefore be a better role model and modification in the implementation of the program.

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Appendix

APPENDIX A

## Letter to Parents of Participating Students

Dear Parents,

Your child will be participating in a program which deals with stress and anxiety and understanding of self and others.

The participating children will learn what stress and anxiety is; how stress and anxiety affect one's body, thinking ability, and social functioning; and how to reduce symptoms of stress and anxiety.

The children will also learn about social and emotional behaviors. There are guided activities which will help the children explore theirs and other people's feelings, values, and attitudes. In this manner, the children should be able to better understand themselves and other people.

High levels of stress and anxiety and low self-esteem often interfere with a student's ability to achieve at school. The program also helps the children in this respect.

The program is based upon sound research and has been used before in school settings with positive results.

The program has been given clearance by Mr. . The activities will also be supervised by Dr. Pfohl (Dept. of Psychology, Western Kentucky University).

In case you would like to have additional information about the activities we are more than happy to talk to you. Please call us, or your teacher.

745-2695.....Dr. Pfohl

842- .....Mr.