In this discussion of stress and relaxing techniques, instructions are given for developing coping skills which involve: (1) cognitive restructuring; (2) deep breathing; (3) muscle relaxation; (4) cue-controlled relaxation; and (5) visual imagery. Variations of several of these techniques suitable to different age groups are also presented. (JD)
Developing Coping Skills to Meet the Challenges in Education

Today and Tomorrow

by

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Stress

Stress is an accepted phenomenon of modern day life. The term is discussed in everyday conversation relating to a variety of facets of life. Courses are offered in the understanding of stress and its ramifications in individual's lives. References are made to stress in popular magazines and on television programs. Scientific studies related to stress are published in journals and books devoted to this topic are being published in abundance.

Stress can be controlled or managed so that "it enhances rather than diminishes our productivity, interpersonal relationships and general zest for living" (Forbes, 1979,p.9). Fleming, Baum and Singer (1984) stated that studies on stress are based on two perspectives: biological and psychosocial. In the biological approach "stress was viewed as a response to threat that was directly related to survival and adaptation" (p.939); in the psychosocial approach "stress is the reaction of an organism to demands placed upon it" (p.940).

The term "stress" has a variety of definitions. On one hand it means the pressure one has placed upon him/her by
Benson (1975) defined stress "as environmental conditions that require behavior readjustment" (p.59). Sarason (1984) stated that "stress can be understood in terms of a call for action" (p.929). On the other hand it has come to mean the pressures one feels or experiences due to his/her internal environment (real or imagined). Forbes (1979) stated that "stress is any action or situation that places heavy or conflicting demands upon you that upset your body's equilibrium" (p.13). In either case both cognitive and physiological components are a part of the individual's stress.

Selye (1974) explained the term "stress" as the changes in the body which occur whenever demands are placed upon it. Stress may be positive—eustress or negative—distress (Selye, 1974). Forbes (1979) stated that "stress is neutral. It is our reaction to it which determines whether it will be beneficial or harmful" (p. 16). Greenberg (1987) defines stress as "the combination of a stressor and stress reactivity (the response)" (p. 10).

Stressors

Selye (1974) defined the term "stressor" as the external stimulus which brings about stress. The stressor can be either physiological or psychological in nature. Examples of physiological stressors include hot or cold environments, electrical shock and loud noises. Examples of psychological stressors include loss of a mate through death or divorce, change in jobs, gain of a family member, change
in financial state, change in school, business readjustment and the beginning or ending of school (Benson, 1975, pp. 57-58). Shaffer (1982) stated that "something becomes a stressor only when the mind identifies it as one. The mind, in short, signals the body that a stressor is present--and the alarm reaction follows" (p.7).

Stressful Life Events

Holmes and Rahe (1967) developed a stressful events scale to rate the stress level of certain life events (psychological stressors). Variations of this scale suitable to college students, elementary school children and pre-school children have also been prepared by several authors (Corbin and Lindsey, 1983; Coddington, 1972). Some people have many stressful life events and apparently suffer no ill effects; others may have only a few of these events but seem to suffer many harmful effects. When stress overwhelms the individual's coping ability, then problems arise and mental and/or physical health problems become evident.

SHOW TRANSPARENCIES # 1, 2, 3 and 4 HERE
TRANSPARENCIES ON STRESSFUL LIFE EVENTS
LET PARTICIPANTS FILL OUT STRESSFUL LIFE EVENTS SCALE AND QUESTIONNAIRE

Individuals are bombarded with "stressors" from birth until death. Lagercrantz and Slotkin (1986) reported the importance of the stress hormones, epinephrine and norepinephrine during the birth process. These hormones allow the fetus to withstand the stress of the birth process and enhance the lungs activity after birth.

The General Adaptation Syndrome

Walter Cannon in the early 1900's described the "fight or flight" response which is very similar to the alarm reaction, the first stage of the General Adaptation Syndrome as presented by Hans Selye (Shaffer, 1982, p. 163; Selye, 1956, 1974). The other stages of the General Adaptation Syndrome are the stage of resistance and the stage of exhaustion. Selye (1956) discovered that the "stress triad" of bleeding gastrointestinal ulcers, hypertrophied adrenals and atrophied lymphatics in laboratory animals occured during the alarm reaction if it occurred at all.

In the alarm reaction the sympathetic division of the autonomic nervous system is activated resulting in an elevated heart rate, increased blood pressure, increased breathing rate and increased release of epinephrine and norepinephrine from the adrenal medulla. Blood is shifted
from the skin and gastrointestinal tract to the heart, lungs and muscle. The pituitary hormone ACTH (adrenocorticotropic hormone) level is elevated. This causes an increased release of the glucocorticoids, cortisol and cortisone from the adrenal cortex. An elevated blood glucose level accompanies the elevated ACTH level. All of these changes give the individual increased coping abilities (Shaffer, 1982; Selye, 1956, 1974).

During the stage of resistance, the activities of the systems of the body, as well as, the hormone levels resume their normal ranges. The stressors may still be present but the body has adjusted or is in the process of adjusting to maintain homeostasis. Repair of damage and restoration of energy are accomplished by the body during this stage (Selye, 1956, 1974; Shaffer, 1982).

The stage of exhaustion occurs when prolonged arousal causes depletion of energy and damage to organs. Hormone levels may reach higher levels than were present during the alarm reaction. Resistance to pathogens decreases as the immune system may be severely suppressed and mechanisms for repair may be damaged. Recovery is slow and death or "diseases of adaptation" (Selye, 1974, p.138) may occur (Shaffer, 1982, p.164).

**Burnout**

The term "burnout" is sometimes given to the stage of exhaustion; however, Seidman and Zager (1986-1987) state that "stress and burnout are not synonymous" (p. 27). Selye
(1976) stated that life without stress is death therefore one must have stress in life; however, one does not have to have burnout in life. According to Holland (1982) burnout is "a negative response to stress".

A special type of burnout that of "teacher burnout" is defined by Seidman and Zager (1986-1987) "as a negative pattern of responding to stressful teaching events, to students and to teaching as a career as well as a perception that there is a lack of administrative support" (p.26). A Teacher Burnout Scale containing four subscales "1) Career Satisfaction; 2) Perceived Administrative Support; 3) Coping with Job-Related Stress; and 4) Attitudes towards Students" has been developed by Seidman and Zager (1986-1987).

**Perception**

How individuals perceive an event or situation determines if it is a stressor to them. Persons experience stress when their perception of the demands of a situation differ from their perception of their response capabilities. The differences in these perceptions create a threat to their ability to cope adequately to the situational demands.

In addition to their perceptions of events as stressors, the actual coping method used will be important in determining the intensity, duration and possible harmful results of their stress. Fleming et al. (1984) stated that "most researchers define coping as a response to
stress—behavioral or psychological responses designed to somehow reduce the aversive qualities of stress" (p.942). These coping responses can be direct or indirect. The direct responses involve problem solving activities to reduce stress. The indirect or palliative responses involve individuals' acceptance of the problem and their management of the stress responses which normally develop.

SHOW TRANSPARENCIES ON PERCEPTION HERE #: 5 and 6

**Personality Types**

An aspect of perception may be related to the individual's personality type. Three such personality types are Type A, Type B and Type C. The Type A person is "aggressive, always in a hurry, has excessive competitive drive, (is) impatient and hostile" (Greenberg, 1987, p.112-113). Persons with type B personality "exhibit no free-floating hostility or sense of time urgency and aren't excessively competitive" (Greenberg, 1987, p. 113). Type A persons are more likely to have heart attacks than Type B persons. Type C personality traits are linked "with an increased susceptibility to cancer" and include "the sort of person who wants to please others, even to the detriment of his own desires; the type who holds in his own needs, frustrations and anger, and goes out of his way to avoid troubling friends, family or strangers, 'the nice guy' " (Drehe, 1988, p.108). Type Cs may appear to resemble Type
Bs in calmness however they have a great deal of "unexpressed frustration and hostility, in addition to depression and despair. The Type C person experiences negative feelings but doesn't express them" (Drehe, 1988, p. 109).

Our personality types may influence our perceptions of stressors and our responses to them. Greenberg (1987) and Drehe (1988) offer suggestions on how one can learn to control or moderate Type A and Type C personality types and thus reduce the risk of ill-health. In our modern day world we often do not have control of many events which occur but we can learn how to control our perception of them and our response to them and thus learn how to meet the challenges in life today and tomorrow.

Coping Skills

There are a variety of coping strategies which if learned and practiced can give one techniques to face the challenges in life as well as the challenges in education both today and tomorrow. There are five coping skills which will be presented: 1) Cognitive Restructuring; 2) Deep Breathing; 3) Muscle Relaxation; 4) Cue-controlled Relaxation and 5) Visual Imagery. Variations of several of these suitable to different age groups will also be presented.
APPENDIX A
Demonstrate Cognitive Restructuring Here
(Give modifications for children)

APPENDIX B
Demonstrate Deep Breathing Exercises Here
(Give modifications for children)

APPENDIX C
Demonstrate Muscle Relaxation Exercises
(Give modifications for children)
(Puppet on String, Floating on Clouds, Prager-Decker's examples)

APPENDIX D
Cue-controlled Relaxation

APPENDIX E
Demonstrate Visual Imagery--Verbally
and Use Sound-Sight Presentation by
Nancy Michel
These coping skills can be used in a variety of settings to help reduce the feelings of helplessness which sometimes accompany one's stress response. A critical factor in utilizing these coping skills is practice. According to Shaffer (1982) when an individual reaches a true state of relaxation the following characteristics will be evident:

1) The heart rate slows and becomes more even;
2) Breathing becomes deeper and more even;
3) Muscles loosen and relax;
4) The hands and feet feel warm, or heavy or both;
5) The mind feels at peace;
6) The body has energy for at least several hours of work;
7) The entire body feels refreshed (p. 62).

Time is required for each individual to learn stress management techniques. These can be most beneficial in allowing the individual to reach a state of relaxation and energy and thus be able to meet the challenges in education both today and tomorrow.
BIBLIOGRAPHY


APPENDIX A
COGNITIVE RESTRUCTURING TECHNIQUE
Cognitive Restructuring Technique

The following directions are given to subjects:

"When you have a negative statement or thought during the testing situation, say 'stop' or 'quit' and replace that thought with a positive alternative. For example:

1) "'People will think I am no good if I fail.' Change to, 'Even if I fail I'm still worthwhile as a person.'"

2) "If you think, 'I'm so worried about this exam,' say out loud or to yourself, 'Stop! It is normal to feel a little anxious, but worrying won't help anything. I'll just try to do the best I can and go on.'"

3) "'These questions are probably trick questions.' Say 'Stop. Don't look for tricks, What does this question ask?'"

4) "'This is a stupid question.' Replace with 'What is the main point or question? I'll focus on that.'"

5) "'I can't answer this,' say, It is alright; I won't panic. Just skip this one and continue to the next question.' (Weissburg, 1974)."
APPENDIX B

DEEP BREATHING EXERCISES
Deep Breathing Exercises

The following instructions are given to the subjects related to deep breathing.

"Concentrate on inhaling deeply through the nostrils then slowly exhale through the mouth. As you inhale, concentrate on the air flowing into your nostrils, nasal cavity, throat, and chest. Concentrate on the increased pressure inside the thoracic cavity pushing against your ribs. As you exhale, slowly concentrate on the air leaving the thoracic cavity. Notice how the pressure lessens against the ribs as the air flows from the thoracic cavity or rib cage into the throat and slowly out the mouth. Do this four or five times. Feel the tension leaving your body."

"If you become anxious or tense your breathing may become more labored and you may hold your breath unconsciously. Follow these directions if you become anxious during the testing situation."

If you have trouble with tension even after deep breathing, then try yawning and stretching" (Cohen, 1980).
APPENDIX C

MUSCLE RELAXATION
MUSCLE RELAXATION

The subjects are given the following instructions related to muscle contractions:

"The techniques described are based on Benson's Muscle relaxation techniques and on Cohen's Instructions for muscle relaxation. While doing the exercise remember to inhale and exhale regularly. Do not hold your breath.

"First, sit in a comfortable position in your chair. If you are practicing this technique at home, you may want to sit in a lounge chair or lay down on a couch or bed. Clinch your fist tightly, then relax. Notice the loose, limp feeling you have when you relax your hand. This is the way you want your whole body to feel when the exercise is completed, loose and limp.

"Start with your facial muscles. Raise your eyebrows. Tighten these muscles to the count of seven, then relax. Press your tongue to the roof of your mouth and hold to the count of seven, then relax. Smile without opening your mouth or parting your lips and hold to the count of seven, then relax.

"Push your left hand on your forehead with your head turned to the left. Do not bend the neck. Hold to the count of seven, then relax. Repeat with the right hand.

"Raise your shoulders towards your ear lobes. Hold to the count of seven, then relax."
"Try to touch your elbows behind your back. Hold to the count of seven, then relax.

"Raise your arms shoulder level, then bend elbow and clinch' fist, "making a muscle"-contracting the biceps muscles in both arms. Hold to the count of seven, then relax.

"Hold arms in same position but bend the hands at the wrist so that the finger tips are pointing toward the head. Hold to the count of seven, then relax.

"Contract the buttocks. Count to seven, then relax.

"Contract the thigh muscles. Hold to the count of seven, then relax.

"Straighten the leg at the knee. Point the toe down contracting the calf muscles. Hold to the count of seven, then relax.

"Straighten the leg at the knee. Point the toe up flexing the foot or contracting the muscles of the top of the leg. Hold to the count of seven, then relax.

"Inhale and exhale deeply. Try to relax the muscles of the entire body.

"Try this muscle relaxation exercise two or three times a day and other times when you feel very tense."
APPENDIX D

CUE-CONTROLLED RELAXATION
CUE-CONTROLLED RELAXATION

The following directions are given to the subjects:

"When practicing the technique, you should be sitting in a comfortable chair, or lying down on a comfortable bed. Close your eyes. Any constricting clothing should be loosened.

"The Cue-Controlled Relaxation Technique involved relaxing the muscles of the body when you say or think a special word. This word is your 'cue.'

"The cue word could be 'still,' 'quiet,' 'stop,' 'calm,' 'rose,' 'relax,' etc., any short word is acceptable to you.

"As you say or think your cue word, breathe in through the nose and out through the mouth slowly and softly. As you say the cue word and breathe slowly, try to relax your muscles. Let them go limp.

"Practice this technique for approximately ten minutes two or three times a day" (Cohen, 1980).
APPENDIX E

VISUAL IMAGERY
VISUAL IMAGERY

The following directions are given to the subjects:

"We are going to try a method of relaxation called visual imagery. It is based on your imagining yourself in a very peaceful relaxed state in a non-threatening environment. As you are practicing this technique remember to breathe slowly and deeply.

"Clinch your fist, then relax it. This is how you want your body to feel at the completion of the exercise, limp and relaxed all over just as your fist is limp and relaxed." The following is spoken in a low pitched cadence: "Now close your eyes. You are at the beach. The sun is warm and pleasant. The ocean breeze is blowing gently on your face and hair. The sea gulls are calling. As you walk along the beach the water laps slowly against your feet as the waves come into shore. The sky is very blue with a few white billowy clouds moving slowly high overhead. The salty smell of the ocean spray is very refreshing and relaxing. As you walk on the beach the warm air makes you feel relaxed and warm. You feel warm and relaxed all over your body from your head to your finger tips and even to your toes. You walk over to the dry sand and put down a beach towel. You lie down on the towel on the warm sand and rest for a short while. The breeze is gently blowing and the warm sun feels very pleasant on your body. You are very relaxed and rested."
The instructor pauses here to allow the participants to concentrate on the previous instructions.

"Now open your eyes. You feel very rested and relaxed from your pleasant trip at the beach. When you feel tense and upset, try taking a short restful, relaxing visit to the beach or to the mountains, through visual imagery."
RELAXATION EXERCISES

1. Neck Stretch—Roll the head slowly in a half circle, first right then left. Close your eyes and feel the stretch. Do not make a full circle by tipping the head back. Repeat several times.

2. Shoulder Lift—Hunch the shoulders as high as possible and then let them drop. Repeat several times. Inhale on the lift; exhale on the drop.

3. Trunk Stretch and Drop—Stand and reach as high as possible; tiptoe and stretch every muscle, then collapse completely, letting knees flex and trunk, head, and arms dangle (see trunk swing illustration). Repeat two or three times.

4. Trunk Swings—Following the trunk drop (preceding illustration), bounce gently with a minimum of muscular effort. Set the trunk swinging from side to side by shifting the weight from one foot to the other, letting the heels come off the floor alternately. Then with a slight springing movement of the lower back, gently bob up and down, keeping the entire body (especially the neck) limp.

5. Tension Contrast—With arms extended overhead, lie on your side. Tense the body as "stiff as a board," then "let go," and relax, letting the body fall either forward or backward in whatever direction it loses balance. Continue "letting go" for a few seconds after falling and allow yourself to feel like you are still "sinking." Repeat on the other side.
**CONTRACT-RELAX EXERCISE ROUTINE FOR RELAXATION***

1. Hand and forearm—Contract your hand, making a fist; relax.
2. Biceps—Flex the elbow and contract your biceps; relax.
3. Forehead—Raise your eyebrows and wrinkle your forehead; relax.
4. Cheeks and nose—Make a face; wrinkle your nose and squint; relax.
5. Jaws—Clench your teeth; relax.
7. Neck and throat—Push head backward while tucking chin, pushing against floor or pillow if lying; if sitting, push against high chair back; relax.
8. Shoulders and upper back—Hunch shoulders to ears; relax.
10. Thighs and buttocks—Squeeze your buttocks together and push your heels into the floor (if lying) or against a chair rung (if sitting); relax.
11. Calves—Pull instep and toes toward shin; relax.
12. Toes—Curl toes; relax.

*Note: Eventually, you should progress to a combination of muscle groups and gradually eliminate the "contract" phase of the program. Refer to Jacobson's relaxation method page 179 for more instructions.*

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