

# **School-Based Intervention Using Muscle Relaxation Techniques**

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Although anxiety disorders represent the primary reason children and adolescents are referred for mental health services, children showing symptoms of these disorders are often not being identified (Tomb & Hunter, 2004). School Psychologists and school counselors are in a unique position to help identify as well as provide preventative measures to combat the development of anxiety disorders. This is critical because greater resources and attention are given to children with disruptive disorders (eg hyperactivity, conduct problems, and oppositional behavior) than disorders like depression and anxiety that present with internalizing symptoms. “It is clear that to reduce levels of childhood mental illness, interventions need to begin earlier, or ideally, preventive interventions need to be provided prior to the development of significant symptoms” (Greenberg, Domitrovich, & Bumbarger, 2001, p.3).

Matthews (1989) cites teaching relaxation skills to children as a key element in developing an effective comprehensive school health program. For 5 years, Matthews (1989) trained 10- to 18-year-old students in relaxation techniques and found that: (1) relaxation training decreases arousal, with high-anxious persons more capable of change than low-anxious persons; (2) students evoke the relaxation response easily but have difficulty evoking arousal; (3) all training techniques are suitable, with cognitive relaxation methods more effective with extended practice; (4) practice creates an incremental effect; (5) personal training is more effective than cassette programs; and (6)

biofeedback instrumentation enhances measurement of relaxation states. She found that relaxation training improved students' self-management skills, decreased state anxiety, increased girls' social interaction skills, improved self-concept, reduced test anxiety, and raised test scores and achievement.

Forman and O'Malley (1985) stress that attitudes and perceptions of self are formed early in life and remain with us throughout our lives as memory traces and influences of our behavior. This suggests that educators must do everything possible to ensure that children have an opportunity to develop positive attitudes and perceptions of themselves. Children who are given positive messages at home would benefit from reinforcement of those messages at school, while children who receive negative messages at home need exposure to positive messages. Skill in stress management is also an important factor in a child's personal development. Numerous studies have shown that various measures of anxiety can be lowered as a result of the use of relaxation procedures (Barrett, P. M. & Turner, C. 2001; Allen, J. S., & Klein, R. J., 1996) or imagery techniques (Speidel & Troy, 1985).

Very little work has been done, however, in applying these techniques with large groups of children. Despite the success found by Allen and Klein (1996) and Matthews (1989) most research deals with the treatment of a single child or a few children. The school setting provides a natural delivery system for a preventative mental health program. The healthy development of children involves coping successfully with stressful experiences. When children with strong social supports are under stress, even high levels of stress, they exhibit fewer symptoms of anxiety than do children with less support (Weigel, 1986). Cauce, Comer, and Schwartz (1987) determined that the long-

term effects of a systems-orientated school prevention program were positive. This was an important finding, as prior to this study it was unclear whether preventative efforts had detectable long-term effects, even though their short-term effects were reasonably well established by earlier studies (Levine & Perkins, 1980; Rappaport, 1979).

The literature supports the idea of a relatively long program as opposed to the introduction of relaxation training in a short time frame. Better relaxation treatment effects were shown when the program was at least six weeks in length. In Morace's (1982) study, a three group, pretest-posttest design was used to investigate the effects of (a) relaxation/imagery training, (b) reading control, and (c) no-training control on several variables, including anxiety. No significant differences were found. Analysis of the results suggested that the training period was not sufficiently long.

Another important factor in determining success rate is how the program is delivered. Because of the techniques involved and/or standardization requirements for research, many of the researchers were directly involved. Herzog (1982) maintained that children appear more able to relax in an environment that does not include strangers. Therefore, a program that teachers themselves could administer should yield more optimal results (Cowen, 1982)..

My interest in school based relaxation programs began with a self-designed stress-reduction program for high school varsity athletes. Progressive muscle relaxation, success imagery, and sedative (baroque or new age) music were presented once per week during ten hour-long sessions. Pre- and post-testing using self-report inventories showed promising results in decreasing self-report of anxiety and depression and increase in self-report of self-concept. Following this program, I used the same methods in an attempt to

increase the musical skills of sophomore band students. A relaxation training session was held for ten consecutive weeks during which time the experimental group was led through a relaxation, success imagery exercise. Although musical performance as measured by the Watkins-Farnum Music Performance Test did not differ significantly from control-group students, self-report inventories of anxiety and depression generally decreased while self-reported self-concept increased. The participants in both these groups frequently stated that the techniques used would be beneficial to all students. This feedback, coupled with the knowledge of the damaging effects of stress and anxiety in children, led me to consider a school-wide intervention program. The concept of a primary prevention program was appealing from the standpoint of the potential to have positive impacts on large numbers of children. There is a critical need to teach relaxation skills at all levels of education. The goal of the program, called Ready...Set...R.E.L.A.X. (Relax, Enjoy, Learn, Appreciate, X-pand) was to provide a tool for children to use in a variety of settings to combat the negative effects of stress and anxiety.

The elementary school level was chosen for several reasons. First, children of this age tend to be more receptive to new experiences and would be more likely to be cooperative subjects. Second, the elementary school schedule is more flexible than that of a secondary school setting and lends itself to an available block of time for a school-wide intervention. Finally, the hope was to provide a program that students would incorporate into their daily lives throughout the year by making it a part of their daily school lives.

The Ready...Set...R.E.L.A.X. program ([www.readysetrelax.com](http://www.readysetrelax.com)) used sedative music as an adjunct to muscle relaxation training and imagery. Interestingly, very few reports

of combining these three techniques can be found in the literature. Not only is the use of such music supported by the literature, but also my experience using music with my own children and with students in school, at workshops, and in groups gave evidence of its benefits. Children who do not actively take part in the progressive muscle relaxation or imagery are at least exposed to a passive form of relaxation. An additional benefit is the opportunity to develop an appreciation for an enriching form of music.

One of the values of using a multi-method intervention is based on the belief that each person has his/her own individual style of seeing the world (Folkman & Lazarus, 1985). For some children, change is accomplished through behavior, which in turn affects cognition and feeling. For others, the key to change is through cognition, which in turn affects feelings and behavior. Theoretically, then, some students may benefit more directly from the use of progressive muscle relaxation while others may benefit more from a cognitive-based success imagery technique. Children usually use several types of coping behavior in virtually every type of stressful encounter. This includes coping that is directed at solving or managing the problem that is causing distress (problem-focused coping) and coping that is directed at regulating the distress itself (emotion-focused coping) (Folkman & Lazarus, 1985).

Thus, it is important to try to teach children how to select the most appropriate mode of coping. For example, if a problem is not solvable (disliking one's teacher), continuing to engage in problem-focused behavior becomes counter productive. Likewise, the same is true for engaging in emotion-focused coping when direct action and problem solving will resolve the conflict. Therefore, an important component of any intervention program is teaching children how to realistically appraise what must be done in a specific

situation. The Ready...Set...R.E.L.A.X. program provided this component by having the children imagine resolving problem-orientated issues. Additionally, suggestions were given to the classroom teacher for a brief follow-up discussion of the topic for the day. Included in the program was an opportunity for the students to repeat a positive self-statement. The purpose of these self-statements was to have the children develop a problem-solving response set. Self-regulated, private speech can function as an instructional cue that guides one's thoughts, feelings, and behaviors. Self-instructions have an influence on one's appraisal, attention processes, and physiological reactions (Meichenbaum, 1977). Folkman and Lazarus (1985) believe that stress management procedures can be effective only when they stimulate new ways of appraising potentially stressful conditions and of coping with them.

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