

# Understanding Adolescent Anxiety Disorders: What Teachers, Health Educators, and Practitioners Should Know and Do

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## Abstract

*Becoming aware of anxiety is necessary for adolescents to maintain a healthy lifestyle. The purpose of this article is to provide information that may assist health teachers and other health practitioners recognize anxiety disorders in adolescents. This article will attempt to identify the causes and types of anxiety, treatments for anxiety, as well as provide information about how anxiety influences the different systems of the body.*

## Introduction

Helping adolescents become aware of, develop, and maintain positive mental and emotional health is a vital part of the overall responsibility of adolescent teachers, health educators and other health practitioners. The mental and emotional health problems adolescents face today challenge their sense of mental and emotional balance and without a doubt, produce a tremendous amount of anxiety. Alcohol and drug use, depression, acquaintance rape, teenage pregnancy, suicide, obesity, and depression are a few examples of anxiety producers that young people deal with on a daily basis (Anspaugh & Ezell, 1994).

The purpose of this article is to assist teachers, health educators and other health practitioners in recognizing anxiety disorders among adolescents as well as identifying the causes, types and treatments of several anxiety disorders. This article will provide some insight as to how anxiety influences the different systems of the body.

Also provided in this article are some examples of what health educators, teachers and health professionals can do to reduce anxiety among adolescents with whom they're working.

Left untreated, anxiety disorders can reduce a person's productivity and diminish quality of life. Anxiety disorders can lead to poor school attendance, low self-esteem, deficient interpersonal skills, alcohol abuse, and adjustment difficulty. Therefore, schools can be a good setting for the recognition of anxiety

disorders in children and adolescents. In addition, parents, caregivers, teachers, and other health practitioners should be understanding and patient when dealing with adolescents with anxiety disorders. The symptoms of anxiety disorders are often difficult to recognize and unfortunately, people who suffer from one or more of them are either too ashamed to seek help or they fail to realize that these disorders can be treated effectively (NIH, 1995). Anxiety disorder is a debilitating condition that will afflict at least 1 out of every 75 people in this country and worldwide during their lifetime (Andrew & Engler, 1995). The age groups showing the greatest prevalence of anxiety disorders include those between the ages of 15 and 24 (Love, 1987).

Anxiety can be described as an unrealistic fear resulting in physiological arousal and accompanied by the behavioral signs of escape or avoidance. When emotions are associated with behavior, the frequency and intensity of an anxiety disorder is usually an indicator of the adolescent's level of emotional wellness. Adolescents may attempt to cope with anxiety in a number of ways therefore, it is important to have young people identify and cope with their anxiety in emotionally healthy ways. Anxiety is an inevitable part of life and becoming aware of the causes and types of anxiety is necessary in order to educate adolescents to maintain a healthy lifestyle and overall wellness. Adolescents need to learn how to manage anxiety and become aware that anxious feelings do not have to be harmful or dangerous to them.

## Causes of Anxiety Disorders

Since anxiety can result in feelings of mild uneasiness to extreme terror and panic, it is important for adolescents to become familiar with the causes of anxiety to have a better understanding of the variability in severity of anxious reactions. The causes of anxiety may be due to a variety of stressful life events, numerous hereditary factors, personal background, personality, physical illness, and possibly overproduction, underproduction, and/or misplacement of serotonin, dopamine, and/or norepinephrine in the brain. Children and adolescents are more likely to have an anxiety disorder if their caregivers have anxiety disorders however, it is not known whether biology or environment plays the greater role in the development of anxiety disorders (NIH, 1991). An indicator of a developing anxiety disorder may be displays of high levels of anxiety or excessive shyness among children aged six to eight years of age. Other components that play a part in the cause of anxiety are; 1) inefficiency, which is the loss of mental alertness and inability to gear the mind toward problem solving, and 2) fear, which is to imagine that actions always have bad or painful consequences, or to imagine only possible adverse events (Leaman, 1999; NIH, 1991; Weinstern, 1995).

The types and recognizable signs of anxiety disorders discussed in this paper include, mild anxiety, generalized anxiety disorder (GAD), panic disorder, specific phobias, social phobias, separation anxiety disorder (SAD), obsessive-compulsive disorder (OCD), and post-traumatic stress disorder (PTSD).

*Mild Anxiety* is experienced by almost everyone at some point and time in their lives. Mild anxiety can occur at any age and the causes vary widely. It can be identified by a person having any one or more of the following signs or symptoms: trembling, twitching, feeling shaky, muscle tension, aches, soreness, restlessness, getting fatigued easy, shortness of breath, palpitations, feelings of heart beating faster, sweating, dryness of the mouth, dizziness, lightheadedness, nausea, flushes, frequent urination, trouble in swallowing, difficulty concentrating, irritability, and trouble falling or staying asleep. These signs and symptoms could be temporary, in the case of anxiety just before a test, presentation or competition, or last longer (two or three weeks) as in the case of anxiety from attending a new school. Obviously, these

symptoms could occur with other anxiety and non-anxiety disorders and one should not confuse these short-term symptoms with signs of other more serious, anxiety disorders (presented next).

*Generalized Anxiety Disorder (GAD)* is characterized by the presence of chronic and exaggerated worry and/or tension. Poor planning skills, high stress levels, and difficulty in relaxing also often accompany GAD. Generalized anxiety disorder most often occurs during childhood or adolescence, but can begin in adulthood. Having this disorder means always anticipating disaster and often worrying excessively about things like health, money, family, or work. People with GAD can't seem to get past the concerns they have. They are unable to relax and often have trouble falling or staying asleep. Some of the physical symptoms of GAD include trembling, twitching, muscle tension, headaches, irritability, sweating, or hot flashes, feel lightheaded or out of breath, and a feeling of being nauseous. Many individuals with GAD startle more easily than other people and they also tend to feel tired, have trouble concentrating, and sometimes suffer depression (APA, 1994; NIH, 1995). Hence, adolescents with this disorder may display some of the signs of mild anxiety but will most likely display chronic worry about situations in their life or in the classroom and constant anticipation about doing poorly on an exam or other performance.

*Panic disorder* can occur at any age--in children or in the elderly--but most often occurs in adolescents (Saeed & Bruce, 1998). Panic disorder is often accompanied by other conditions such as depression or alcoholism, and may also be the cause of certain phobias that can develop in places or situations where panic attacks have occurred (APA, 1994). People affected with panic disorder usually restrict their travel or need someone to assist them when they are away from familiar places. The severity of panic disorder can range from being distressed to being completely homebound. A person may find it difficult to differentiate between real physical problems and panic disorder and may genuinely believe they are having a heart attack or stroke, are losing their mind, or on the verge of death. Symptoms associated with panic disorder are similar to those identified with mild anxiety, but can also include a smothering sensation, an unsteady feeling, or faintness, choking, abdominal

distress, depersonalization, numbness, tingling sensations, chest pain, fear of dying, and fear of going crazy or doing something uncontrolled. Other symptoms of panic disorder can include chills, hot flashes, nausea, cramps, chest pain, tightness in the throat, trouble swallowing and dizziness, a rapid heartbeat, sweating, trembling, and a shortness of breath. People with panic disorder have feelings of terror that strike suddenly and repeatedly with no warning and attacks can occur any time. While most attacks usually last only a couple of minutes, occasionally an attack can last for up to 10 minutes. In rare cases, an attack may last an hour or more (APA, 1994; Saeed & Bruce, 1998; Federici & Tommasini, 1992).

During a panic attack, adolescents (and adults for that matter) with panic disorders will most often try to remove or isolate themselves from the environment or situation they are in currently. Since panic attack sufferers usually feel incapacitated, helpless, and fearful surrounding an attack; they will seek solitude in a quiet place in an effort to calm themselves and avoid embarrassment. Most often they will need to focus on restoring their breathing to normal and attempting to overcome their overwhelming fear.

Excessive or unreasonable fear of a specific object or situation is referred to as a *Specific Phobia*. Many people experience specific phobias that can include heights, flying, elevators, animals, closed-in places, tunnels, highway driving, water, and injuries involving blood, just to name a few examples. Phobias aren't just extreme fear; they are irrational fear as well. Specific phobias strike more than 1 in 10 people and usually first appear in adolescence or young adulthood (Alloy & others, 1996). When children have specific phobias--for example, a fear of animals--those fears usually disappear over time, though they may continue into adulthood. The causes of a specific phobia are not known, though they seem to run in families and are a little more prevalent in women. (Alloy & others, 1996; APA, 1994; NIH, 1995).

Specific phobias among adolescents may never become known in a classroom or in other settings unless the object or activity of the specific phobia is presented. Specific phobias will vary in the degree of harm they may cause the adolescent and can usually only be addressed if allowed by the adolescent (i.e. adolescent is willing to talk about the phobia). It is the

judgment of the teacher or health professional that may determine if the specific phobia is deemed as appropriate to address.

A *Social Phobia* is characterized by a persistent fear of embarrassing oneself in social or performance situations such as public speaking, public restrooms, and being in a room full of people not known to the individual. The person fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing. Social phobia often begins around early adolescence or even younger and can disrupt normal life and interfere with a person's social relationships and career. Social phobia is often hereditary and may be accompanied by other disorders like depression or alcoholism (NIH, 1995).

Sometimes social phobias involve a general fear of social situations, such as parties. A person may be afraid of being with people other than those closest to them. In other cases, the social phobia may be more specific, such as feeling anxious about giving a speech, talking to a boss or other authority figure, or even going on a date. The most common social phobia is a fear of public speaking, to which the dread of such an event can actually begin weeks in advance. Interestingly, people with social phobias aren't necessarily shy. They can be completely at ease with people most of the time, but in particular situations, such as walking down an aisle in public or making a speech, can cause them intense anxiety. The feared social or performance situations are usually avoided or endured with an intense amount of anxiety or distress (APA, 1994; NIH, 1995).

In adolescents, social phobias will most often appear when an adolescent has to give a presentation or perform a task in front of peers or adults who will judge them in some manner. Different from mild anxiety that most everyone can have prior to a performance of some kind, a social phobia in these situations is chronic and problematic. The adolescent may try to avoid doing the task (as mentioned before) as not to reveal their fear of the situation.

*Separation Anxiety Disorder (SAD)* is when someone, usually a child, develops intense anxiety, even to the point of panic, as a result of being separated from a parent or other loved one. It often appears suddenly with no previous signs of a problem and is so intense that it interferes with normal activities. Such things as refusing to leave the house

alone, visiting or sleeping at a friend's house, going to camp or going on errands can characterize separation anxiety disorder. The symptoms often include complaints of stomachaches, headaches, nausea and vomiting. SAD sufferers may also have heart palpitations, feel dizzy, faint, have trouble falling asleep or may try to sleep in their parents' bed. At home, they may cling to or follow closely on the heels of their parents. When these children are separated from a parent, they become preoccupied with fears that harm will come to them, or that they will never be reunited with the parent (Delunty & DeVitis, 1996; Lee & Miltenberger, 1996; Lonigan & others, 1994).

Even though most children grow out of separation anxiety disorder, adolescents may still display separation anxiety from the home (not necessarily the parents). They may try to avoid attending school, appointments or any outside activities as much as possible, just so they may stay in the comfort and safety of their home. These adolescents usually have few friends, no activities outside the home, and complain of health problems (like those mentioned above) when forced to go out of the house.

**Obsessive-Compulsive Disorder (OCD)** consists of obsessions and compulsions that cause excessive distress. They are time consuming (take more than one hour a day), significantly interfere with the person's normal routine, occupational (or academic) functioning, and usual social activities or relationships. **Obsessions** are recurrent and persistent thoughts, impulses, or images that are intrusive and inappropriate and cause undue anxiety and/or distress. Persons with OCD will attempt to ignore or suppress thoughts, impulses, or images, or to neutralize them with some other thoughts or actions. They are not simply excessive worries about real-life problems and are usually a product of their own imagination. **Compulsions** are repetitive behaviors (e.g., hand washing) or mental acts (e.g., praying, counting, repeating words silently) that a person feels driven to perform in response to an obsession, or *Arules@* that must be rigidly followed. The person=s behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation. However, these behaviors or mental acts are clearly excessive and may not be connected with the behaviors they are designed to neutralize or prevent (APA, 1994; NIH, 1995; Wender, 1987).

It is usually easy to identify an adolescent afflicted with OCD. The adolescent may obsess about a certain event for most of the day or perhaps week at a time and will display repetitive and/or possibly neurotic behaviors during a given period of time spent with them. These adolescents may have to leave the classroom or office to engage in a ritual behavior and/or simply be unable to cease discussion of their persistent thoughts about a certain event or situation.

**Post-Traumatic Stress Disorder (PTSD)** is a debilitating condition that can result from a person being confronted with a terrifying event where their response involved intense fear, horror, or helplessness. PTSD can also result from an individual witnessing any number of other traumatic incidents that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others. Examples of traumatic events include kidnapping; a car, plane or train wreck; natural disasters such as floods, tornados, or earthquakes; violent attacks such as a mugging, rape, or torture, or being held captive. PTSD can occur at any age, including childhood, and may be accompanied by depression, substance abuse, or anxiety with mild or severe symptoms (Perry & Azad, 1999).

PTSD occurs when the traumatic event is persistently re-experienced in one (or more) of the following ways: distressing recollections of the event, including images, thoughts, or perceptions; recurrent distressing dreams, flashback episodes, and intense psychological distress of the event. A person may also exhibit persistent avoidance of any stimuli associated with the trauma and/or numbing of the responsiveness by making efforts to avoid thoughts, feelings, activities, places, conversations, and people associated with the trauma. There exists a diminished interest or participation in significant activities, feelings of detachment or estrangement from others; and a sense of a shortened future. They may feel irritable, more aggressive than before, or even violent. (APA, 1994; NIH, 1995).

PSTD may be considered as one of the most severe anxiety disorders and may actually prevent an adolescent or child from functioning in school or in outside activities. Depending on the severity and frequency of flashbacks (i.e. overwhelming flood of memories) or recurring thoughts, the adolescent may or may not display readily visible signs of affliction.

At the very least, an adolescent suffering from PTSD will be tired from lack of sleep associated with recurring dreams or nightmares and will most likely be antisocial in nature. If an adolescent experiences a flashback or distracting recurring thought in class, the teacher may want to approach the adolescent in a non-threatening manner and attempt to verbally cue the student to 'come back' or refocus to the current setting. It is critical for the teacher or practitioner working with a PTSD afflicted adolescent to aide them in obtaining professional therapy for dealing with PTSD.

### **Disorders on Body Systems**

Anxiety levels have a direct influence on the physical, mental, and behavioral systems of the body. A good way to think of the body systems is to remember they are aimed at getting the body prepared for immediate action and their purpose is to protect the organism. It is important to have an idea of the influence of anxiety disorders on body systems in order to understand the detrimental effects anxiety can have on overall health and emotional well-being.

#### ***The Physical System***

When some sort of danger is perceived or anticipated (or anxiety is endured), the brain sends messages to a section of your nerves called the autonomic nervous system. It regulates such things as blood pressure, heart rate, sweating, salivation, digestive processes, size of the pupils of the eyes, urinary bladder contraction, sexual responses, and muscle tension associated with aches, pains, trembling and shaking. Autonomic refers to the involuntary part of the nervous system and has two subsections or branches called the sympathetic nervous system and the parasympathetic nervous system. It is these two branches of the nervous system that are directly involved in controlling the body's energy levels and preparation for action. The sympathetic nervous system is the fight/flight system that releases energy and gets the body ready for action while the parasympathetic nervous system is the built-in protector that returns the body to a relaxed state.

An explanation why most anxiety and panic attacks involve many symptoms and not just one or two could be that the sympathetic nervous system tends to be an all or none system. In other words, when the sympathetic nervous system is activated, all of its parts respond, therefore either all symptoms are experienced

or no symptoms are experienced. That process makes it rare for changes to occur in one part of the body alone.

#### ***Cardiovascular Effects***

During anxiety, sympathetic nervous system activity produces increased heart rate and a stronger heartbeat. This preparation activity helps speed up blood flow, thus improving circulation of oxygen to the tissues while also removing waste products from the tissues. During anxiety the skin looks pale and feels cold. The fingers and toes become cold and sometimes experience numbness and tingling similar to that encountered as a result of a blood pH shift secondary to hyperventilation. The reason for this is that blood is redirected away from the places where it is not needed (skin, fingers, and toes), by a constricting of the blood vessels, and toward the places where it is needed more (internal organs), by a dilation of the blood vessels. This is useful because if the body is attacked and cut in some way, it is less likely to bleed to death.

#### ***Respiratory Effects***

The respiratory effects of anxiety are characterized by an increase in the speed and depth of breathing rate. This is important for the defense of the organism because the tissues need to get more oxygen to prepare for action. The feelings produced by an increase in breathing can include breathlessness, choking or smothering feelings, and even chest pains or tightness. A side effect of increased breathing, especially when no actual activity occurs after the increase, is the decreased blood supply to the head, which can produce dizziness, blurred vision, confusion, and hot flushes. Lastly, the fight or flight response to anxiety results in the activation of the body's metabolism. Thus, one often feels hot and flushed, and because this process consumes much energy, the person generally feels tired, drained, and washed out after the anxiety experience.

#### ***Psychological System***

As with the cardiovascular and respiratory effects that the sympathetic nervous system can have on the body in response to anxiety, the sympathetic nervous system can also have profound psychological effects on the body. The effects of anxiety on the psychological or cognitive system include an immediate and automatic shift in attention from the body itself to searching the surrounding area for the potential threat. A purpose of

the fight or flight response is to alert the body to the possible existence of danger. People who are anxious often complain they are easily distracted from daily activities, they cannot concentrate, and they have trouble with their memory. These complaints and distractions are normal because as mentioned earlier, a purpose of the fight or flight response is to cease current activities and prompt to scan the surroundings for possible danger. When no obvious threat or explanation can be found, anxiety afflicted individuals turn their search toward themselves. In other words, if these people cannot find anything making them feel anxious, they feel something must be wrong with them. Of course, once a person has had a number of bouts with anxiety and they have misinterpreted the symptoms many times, this misinterpretation becomes quite automatic and it becomes very difficult to consciously convince him or herself during a panic attack or episode of anxiety that the symptoms are harmless.

#### ***Behavioral System***

The psychophysiological response of the sympathetic nervous system to anxiety (described above) can lead to behavioral manifestations. The behavioral system is characterized by any number of urges, or behaviors, that exist including aggression, a desire to escape, foot tapping, pacing, and 'snapping' at people. Since the fight or flight response prepares the body for some kind of action (either to attack or to run), it comes as no surprise that the overwhelming urges or behaviors associated with this response are those of aggression and/or a desire to escape. As mentioned in the section regarding recognizing types of anxiety disorders, adolescents will most commonly try to avoid or escape their current anxiety-provoking situation for fear of embarrassment or aggressive outrage. Those behaviors such as foot tapping, pacing, and snapping at others; may be more commonly seen in anxiety disorders.

#### ***Chronic Stress Syndrome***

Overall, in terms of the physical, psychological and behavioral effects of anxiety, it can be concluded that experiencing anxiety over a period of time has detrimental effects on the physical, mental and emotional aspects of health. Increased heart rate, decreased blood flow, respiratory problems, lack of concentration B just to highlight a few responses- can lead to chronic stress syndrome. In chronic stress

syndrome, individuals suffer from prolonged psychophysiological reactions to stress-related stimuli. In fact, chronic stress syndrome sufferers usually do not even realize that their body is in a constant state of stress reactivity since they have become accustomed to heightened physiological stress responses. Chronic stress syndrome can lead to long-term health complications such as a weaker immune system, asthma, various cardiac problems, poor academic performance and most of all, poor emotional and psychological well-being. Treating anxiety disorders in the early stages of development can prevent chronic stress syndrome and other anxiety-related outcomes.

#### ***Treatments For Anxiety Disorders***

People with an anxiety disorder have reason to feel optimistic about overcoming the illness. Effective treatments are available, so it is important for people who experience symptoms of anxiety to visit a mental health professional for a thorough examination. Treatment is successful in as many as 90 percent of anxiety disorder patients and early treatment can help keep anxiety disorders from progressing (NIH, 1995). Treatment must be specially tailored for each individual, but there are a number of standard approaches. Individuals with anxiety disorders can almost always be treated without being admitted to a hospital. Generally, therapists use a combination of treatments since there is no single correct approach or cure. Many anxiety-afflicted individuals can feel substantial relief in just weeks or months after treatment. Drawbacks of some types of treatment can be that it takes time to achieve results with behavior and cognitive therapies and most medications have side effects of some kind (NIH, 1991).

Five types of therapy have been used successfully to treat the symptoms of anxiety disorders and include: 1) behavior therapy, 2) cognitive-behavioral therapy, 3) psychodynamic psychotherapy, 4) drug therapy, and 5) biofeedback therapy.

***1) Behavior therapy*** uses relaxation techniques and exposure to the feared object(s) or situation(s) in a carefully planned, gradual manner so that the individual can learn to control the anxious responses. The most commonly used behavioral approach is graduated exposure, aimed primarily at reducing phobic avoidance and anticipatory anxiety. The benefits of behavior therapy treatment are that the

adolescent is actively involved and learns recovery skills that are useful for a lifetime.

2) **Cognitive-behavioral therapy** (CBT) helps a person understand their patterns of thinking so they can react differently to situations that cause their anxiety. Cognitive-behavioral therapy teaches a person to anticipate and prepare for the situations and bodily sensations that may trigger their anxiety. Cognitive-behavioral approaches involve cognitive restructuring, targeted to change maladaptive thought processes, and are generally used in combination with a variety of behavioral techniques. These techniques may include breathing retraining and activities that target exposure to the body's sensations and possible external phobia situations (NIH, 1995). The benefits of cognitive therapy are the same as behavior therapy. The components of CBT consist of: 1) education, 2) cognitive restructuring, 3) breathing training, 4) relaxation exercises, 5) situational exposure, and 6) interoceptive exposure. Each component is aimed at alleviating panic attacks, agoraphobic avoidance, chronic anxiety, and depression associated with panic disorder. An understanding of anxiety is an important part of the recovery process therefore people must acquire the necessary education about anxiety and the development of anxiety disorders. **Cognitive restructuring** is a major part of the treatment and is intended to correct distorted thinking about anxiety. The goal is to have a person change their reaction to their emotional arousal and panic symptoms, and learn to deal effectively with anxiety provoking situations. The treatment requires the person to self-monitor their thoughts, assumptions, and beliefs during anxiety provoking situations and panic attacks. **Breathing training** attempts to teach a person that a pattern of slow, regular breathing helps prevent hyperventilation - a definite cue and uncomfortable symptom of anxiety. **Relaxation exercises** involve progressive muscle tension and are often incorporated to lower general anxiety levels. **Situational exposure** consists of structured and repeated exposure to anxiety - and panic provoking situations. The person undergoes exposure to feared situations while using coping strategies learned during therapy, beginning with the least feared and moving to the most feared situation. **Interoceptive exposure** involves the structured and repeated

exposure to panic-like physical sensations. The person undergoes systematic exposure to feared internal sensations (e.g., dizziness, palpitations). The feared sensations may be produced using methods such as controlled hyperventilation or physical exertion (e.g., running up a flight of stairs to get your heart racing). Using these methods are necessary because a person can often become fearful of body sensations, such as those caused by exercise, caffeine, and other kinds of excitement (APA, 1994; NIH, 1995).

3) **Psychodynamic psychotherapy** is based on the concept that symptoms result from unconscious mental conflict a person is experiencing. For the person to experience relief from the anxiety symptoms, the meanings of the unconscious mental conflicts must be uncovered, preferably by consulting with a qualified mental health professional in a clinical setting on a regular basis.

4) **Drug therapy** can be a convenient, effective method in treating the symptoms of anxiety disorders. The goal of drug therapy is to resolve the symptoms by restoring chemical imbalances in the brain that lead to symptoms. A number of medications are available to treat anxiety disorders, but often require several weeks to achieve their full effect. A mental health care professional and pharmacist should monitor a person's progress to determine whether a change is needed in either the type or amount of medication given. The benefits of drug therapy are that it enables other forms of treatment to move forward. Several types of medications have been shown to be safe and effective in the treatment of anxiety disorders including tricyclic antidepressants, high-potency benzodiazepines, selective serotonin reuptake inhibitors, and monamine oxidase inhibitors (See Table One).

5) **Biofeedback therapy(training)** teaches individuals to bring biological events, such as increased heart rate, muscle tension, blood flow, and respiration under voluntary control through the provision of biological feedback. The goal of biofeedback training is to reduce the biological responses to anxiety by training the adolescent through feedback. The benefits of biofeedback therapy are that adolescents can train themselves to alter their biological responses to anxiety without use of

medication. With anxiety disorders, a biofeedback therapist can train an anxiety-afflicted individual to reduce the level of the individual's biological and often, psychological reactions to anxiety. For instance, an individual suffering from panic attacks can learn to control their breathing, decrease their heart rate, increase the blood flow to their hands, and reduce their muscle contractions during an attack by receiving these biological feedback responses under simulated stressors with a biofeedback therapist.

Wenck, Leu, and D'Amato (1996) used electromyograph and thermal biofeedback techniques with one hundred and fifty anxious adolescents and found that those receiving the biofeedback intervention demonstrated a significant reduction in both state and trait anxiety. Hence, biofeedback can be an effective non-pharmacologic therapy in treating anxiety disorders with adolescents and adults. Biofeedback can also be used in combination with the other treatment therapies mentioned B the most common coupling being biofeedback and counseling.

Some other anxiety managing tips include recognizing and accepting the anxiety, being kind to your body, getting a massage, getting enough rest, practicing deep breathing, getting out and doing something you enjoy, planning your day, discussing your fears with a good friend, getting involved in social groups to help others, and avoiding alcohol, caffeine, chocolate, and nicotine (Saeed & Bruce, 1998; Weinstein, 1995).

Seeking treatment for anxiety disorders is critical because without treatment:

1. A person may continue to have panic attacks for years.
2. The disorder can seriously interfere with a person's relationship with their family, friends, and co-workers.
3. Life may become severely restricted because the person may start to avoid certain situations where their fear will cause them to experience a panic attack.
4. In extreme cases, people with untreated panic disorder grow afraid to leave the house, a condition known as agoraphobia.
5. The person may become severely depressed and find it difficult to be productive at school and work.

6. A person may begin to have thoughts about suicide (Love, 1987; Federici & Tommasini, 1992).

### Reducing Anxiety Among Anxious Adolescents

School (classroom), small group, and one-on-one settings can serve as helpful environments for the recognition and management of anxiety disorders. First, teachers are in the position to promote positive emotional health and possibly reduce the occurrence of anxiety among adolescents within the classroom, in several ways. The attitude teachers demonstrate during daily interaction with students affect the emotional environment of the classroom. The teacher is responsible for treating each student as a unique individual. Teachers need to give praise and encouragement through learning experiences that challenge and provide successful reinforcement of students' feelings of competency and mastery to help prevent and reduce anxiety.

Teachers need to help students learn how to accept responsibility for their own behavior. A crucial element of emotional development is the ability to accept responsibility and live with mistakes. The rapport a teacher and student establish can influence student's perceptions about acceptance, trust, support, self-esteem, competency, and independence (Delunty & DeVitis, 1996; Lee & Miltenberger, 1996; Lonigan & others, 1994). Lastly, a teacher needs to be an active and effective listener and patient observer and provide students opportunities to express their feelings and thoughts openly (Looney, 1988; Love, 1987; Perry & Azad, 1999).

Second, health practioners and educators can provide an anxiety reducing atmosphere in a one-on-one or small group setting within community centers or office practice. Similar to the suggestions for teachers, health practioners need to focus on building confidence and rewarding accomplishment when working with anxious adolescents.

#### *Use of 'inner life skills' to reduce anxiety*

Personal development or inner life skills can help adolescents recognize their feelings and 'listen' to their individual imagination as a way to reduce anxiety. These skills can include but are not limited to relaxation, visualization, meditation, and active imagination activities. Activities such as these can

Table 1. Medications Used To Treat Anxiety Disorders

Drug Treatment	Anxiety Disorders	How It Works	Possible Benefits	Possible Side-Effects
<p><b><u>Benzodiazepines</u></b>                      Ativan, Xanax                      Dalmane, Valium                      Librium, Serax                      Restoril, Paxipam                      Tranxene,                      Klonopin                      Centrax</p>	<p>GAD, Panic Disorder, Social Phobia</p>	<p>Enhances the function of GABA.</p>	<p>Fast-acting, most people feel better in the first week and many feel the effects the first day of treatment.</p>	<p>May be habit-forming; can cause drowsiness; can produce withdrawal symptoms</p>
<p><b><u>SSRIs</u></b>                      Desyrel, Zoloft                      Effexor, Serzone                      Luvox, Prozac                      Paxil</p>	<p>Panic Disorder, OCD, Social Phobia, GAD</p>	<p>Affects the concentration of serotonin in the brain</p>	<p>Effective treatment for many people; usually takes 2 to 6 weeks until improvement occurs.</p>	<p>Can cause nervousness; sexual difficulties and possibly nausea.</p>
<p><b><u>(MAOIs):</u></b>                      Eldepryl                      Marplan                      Nardil                      Parnate</p>	<p>Panic Disorder                      Social Phobia                      PTSD, OCD</p>	<p>Prevents the breakdown of serotonin and noradrenaline.</p>	<p>Effective treatment for people not responding to other medicines; usually takes 2 to 6 weeks until improvement occurs.</p>	<p>Must follow strict dietary restrictions; potential drug interactions exist; low blood pressure; reduced sexual response; insomnia.</p>
<p><b><u>Tricyclic Antidepressants</u></b>                      Adapin, Vivactil                      Anafranil, Tofrani                      Elavil, Surmontil                      Janimine, Sinequan                      Ludiomil,                      Pertofrane                      Pamelor</p>	<p>Panic Disorder, PTSD, OCD</p>	<p>Regulates serotonin and/or noradrenaline in the brain.</p>	<p>Effective treatment for many people; usually takes 2 to 6 weeks until improvement occurs.</p>	<p>Can cause dry mouth, low blood pressure, blurry vision, constipation, difficulty urinating; dizziness, moderate weight gain, and sexual difficulty.</p>

include the adolescents becoming aware of their body, emotions, self-beliefs, energy flow, self-motivations, self-expression, relation to others and emotional and physical release (Pearson, 1998).

Since schools are often a major site of created stress and anxiety, it would be most ideal to teach inner life skills to resolve this stress. Teachers can use these activities to help students develop ways of achieving their goals and avoiding feelings of doubt, embarrassment, or inadequacy. Gardner (1984) identified seven areas that need to be activated and extended for a balanced education. These seven areas promote that inner life skills work:

- Can be taught as a life skill for emotional well-being

  - Teaches stress management and relaxation skills

  - Can act as a pre-lesson focusing device

- Contributes directly to personal development through discovery

- Contributes to spiritual growth and the arousing of philosophical questions

  - Helps adolescents and children tap into their imagination and the creativity of their unconscious, especially in artwork and creative writing (Gardner, 1984).

These inner-life skills can be integrated in large group settings, such as the classroom, or in one-on-one or small group settings within a community or office setting. Integrative actions such as writing, drawing, dancing, choosing a symbol, proclaiming/making clear statements about self, sharing experiences and celebration can all be used as inner life skill exercises (Pearson, 1998).

To summarize the above-mentioned suggestions for reducing anxiety among adolescents, some tips for teachers and practitioners to consider when dealing with adolescent anxiety are below:

1. Show empathy towards adolescents displaying anxiety over performing given tasks.
2. Offer to talk to anxiety-afflicted adolescents about their specific anxiety in a one-on-one setting (i.e. after class, session, or group meeting).
3. Practice giving daily words of praise to adolescents to build confidence.
4. Incorporate an inner life skill into an activity each day you work with adolescents (i.e. relaxation exercise, active imagination, guided visualization, energy releasing exercise, etc.).

5. Relay a message of understanding to adolescents that it's okay to be nervous, anxious or even scared before performing difficult tasks. Some anxiety and nervousness is normal!
6. Be an anxiety reduction resource for your adolescents. Tell them about treatment options that are available (described in this article) and provide them (and possibly their parents) with professional contacts for help.

### Summary

With an increased number of adolescents suffering from and being diagnosed with anxiety disorders, teachers, health professionals, parents, and adolescents themselves, must become equipped to handle all aspects of identifying, treating, and possibly preventing the wide variety of these anxiety disorders. Therefore, those individuals working with adolescents in schools and in the community need to be able to recognize anxiety disorders, promote healthy ways of coping with anxiety, and provide a healthy environment for anxiety reduction. Children and adolescents must be made aware that they suffer from an anxiety disorder, but the final responsibility of getting help falls in the lap of the individual. Once adolescents accept this responsibility, they must obtain the knowledge that will help identify anxiety disorders, then admit that they suffer from an anxiety, seek appropriate professional help, implement a treatment plan that is most appropriate for them to treat their anxiety disorder, and lastly monitor their recovery process.

The issues and suggestions for coping with anxiety presented in this article are just some of facets of adolescent anxiety. For more information and assistance with specific causes, treatment and prevention strategies regarding adolescent anxiety, contact a licensed mental health care professional.

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