

Test Anxiety: Age Appropriate Interventions

ABSTRACT: The presentation covers information on test anxiety reduction strategies from over thirty years of experience with from clients of a variety of ages. Dr. Ross is from the College of Lake County. Dr. Driscoll is a private practitioner and Director of the American Test Anxieties Association. The purpose is to address age appropriate test anxiety reduction interventions in the following age groups: a.) elementary and middle school. b.) high school and traditional college age. c.) non-traditional college students. In addition to treatment strategies, the authors provide: a.) an annotated list of suggested readings. b.) resources available from the authors. c.) the Westside Test Anxiety Scale. d.) a Test Anxiety Intake Interview.

Presentation made at the American Counseling Association Southern Region Leadership Conference: October 26th, 2006 in Huntsville, Alabama

Presenters:

David B. Ross, EdD

Counselor

College of Lake County, Grayslake, Illinois

847-543-2352 daveross@clcillinois.edu

<http://clcpages.clcillinois.edu/home/cou052>

Richard Driscoll, PhD

Program Director for the American Test Anxieties Association

Westside Psychology, Knoxville, Tennessee

800-769-0962 x104

www.amtaa.org or www.peacewithmyself.com

Introductory Remarks

The treatment approaches for test anxiety have been available for a long time; there really isn't anything new that we are going to talk about. However, one needs to recognize that not all individuals need the same type of assistance. Test Anxiety is a very subjective experience. Nearly all assessments are based on self-report from the individual. If a student says they are nervous or worried about tests, and it interferes with their performance, then they have test anxiety.

We believe that multi-faceted approaches have the best opportunity to provide assistance. There are significant differences in the experience of test anxiety, based on factors such as: age, gender, and ethnicity. The purpose of this session is to address age related factors as a way to help counselors and teachers design interventions.

Assistance can be delivered in groups or on an individual basis. We are also concerned about time and cost effective approaches that can be delivered in a cost and time efficient manner

in a school setting. Alternative instruction methods which deliver the service by audio-visual, internet, self-paced workbooks can provide effective help.

Test anxiety will begin to appear in the elementary grades, continue to increase with age, and appears to peak during the college years. Unfortunately, many of the highly anxious high school students may not pursue higher education.

Test anxiety reduction findings are stronger with college students than with grade school students, but that may also be due to the fact that the college students are more ready to self-identify and seek assistance. Unfortunately, only a small portion of students seek treatment for test anxiety. Many students, especially grade school students, do not wish to be identified as test anxious. Teacher referrals are very helpful in identifying students.

Basic Framework for Treatment:

The following are the general areas of treatment for test anxiety, regardless of the age of the student. It is beneficial to have students experience instruction or treatment in all of these areas, even if their needs are more in one area than another. For example, many students experiencing test anxiety have very good study habits, and really don't need a lot of help in this area. But have you ever met a student who couldn't benefit from some assistance with study skills? In fact, some of the highly test anxious students are earning high grades, but suffer greatly to achieve that high level of performance. The multi-faceted approach gives the greatest number of students the opportunity for improvement.

Treatment Areas:

Skill Development

- a.) Study and Memory. Based on learning styles. Develop active learning strategies. Learn time management.
- b.) Test Taking. Careful reading. Use of key words. Test management.

Behavioral Interventions

- a.) Basic Relaxation. Learning how to reduce physical tension when needed.
- b.) Systematic Desensitization. To reduce conditioned anxiety.

Cognitive Factors

- a.) Reduction of Negative and/or Irrational Thoughts. Through cognitive restructuring and thought substitution.
- b.) Development of an attitude of commitment to study. Recognizing that it takes time and hard work.

Stress and Lifestyle Issues

- a.) General Stress Reduction. Learning basic coping strategies for life conditions.
- b.) Diet. Susceptibility to low blood sugar and/or significant eating disorders.
- c.) Exercise. To control stress and strengthen body.

AGE SPECIFIC INTERVENTIONS:

The basic framework is used with all groups, but the emphasis may change with the specific age group. We will start with some general comments about the age group and how we assess the level of anxiety, followed by specific comments about some of the treatment areas.

Elementary School and Middle School (Dr. Driscoll):

This is the age that test anxiety begins to appear in many students. But it is difficult and often stigmatizing to identify students as “test anxious”, so it may be appropriate to provide the support and treatment for all students, even if they are not anxious. However, you can determine high anxious students by teacher referral or a screening instrument. The Westside Test Anxiety Scale (www.amtaa.org/scales.html) has been used by this author for identification of highly anxious students. In a 2005 project with 5th grade students, those students who completed the training showed a 7 percentile gain on the state of Tennessee TCAP tests (www.amtaa.org/research/5thgrade05.html).

These students completed the STARS-PAC protocol. The training begins with a STARS sequence, which reduces existing stress in a matter of minutes. (STARS stands for Stretch, Tense, Air, Release–Relax, and Suggestion.) Most students find the stress reducer quite pleasant.

The stretching and muscle tension are thought to consume the physiological components of arousal, and the deep breaths counter the shallow breathing often associated with high anxiety. Tensed muscles fatigue quickly, and relaxation follows naturally as students release their breaths and release their muscles and experience their muscles relaxing. STARS also takes students into a peaceful training zone, which introduces positive expectations, improves concentration, and intensifies the experience.

Students are asked to imagine an activity which they find particularly interesting, such as reading a mystery novel or hiking a new trail. Students focus on that feeling of interest and intrigue, to intensify it, and are asked to store it.

Students next review eight learning and testing scenes, with instructions to experience interest in the activities. So you might imagine that you are in class listening to the teacher, but the instructions are to experience the same sense of interest in what the teacher is saying, and in how things fit together, that you experience while involved in your favorite activity. You imagine reviewing the material before a major test, with instructions that you realize just how much of it you already know, and that the material is yours to organize in your mind as you wish, so that it makes sense to you. And you see yourself taking a test, with instructions to imagine that you find satisfaction in unloading your material on the appropriate questions. So it is an identify and paste method, of sorts, with feelings harvested from an interesting activity and then pasted onto the learning and testing situations.

Additional STARS sequences follow the exposure scenes, to curb any anxiety, reinstate the training state, and prepare students for the next scene. Specific wording and anxiety reduction findings at: www.amtaa.org/research/starspac04.html

In an ordinary state, it would be far fetched to propose that highly test anxious students could take pleasure in anything remotely connected to a test. And yet, in the special sequencing here, students can and do imagine enjoying learning, organizing, and then showing their mastery

on a test. And after students imagine being interested in the scenes, it is a short step to feeling that interest in the actual situations.

One advantage of using recorded protocols is that it can vastly reduce the professional resources required. Yet anxiety tolerances vary, and the pacing is critical. Exposure scenes which are appropriately challenging for one student may be overwhelming for another, resulting in more modest outcomes.

High School and Traditional Aged College Students (Dr. Ross)

A very high percentage of these students have some form of test anxiety. It is estimated that up to 10% have a relatively high level of anxiety, with another 40% having a mild form. A very small percentage of these students will self-identify and refer themselves to counseling. Teacher referrals are the primary source of students for treatment. Some students self refer from campus advertisements or a listing in a class schedule.

As adults these students can then be assessed through an interview (copy is referenced at the end) in which we review all of the treatment areas. We use the interview to develop a plan of action and the students are given a “homework plan”

Many new college students simply do not know how to organize their study and do not commit enough time to “active study” approaches. A common student response is, “I read the book, and I should be able to remember the stuff.” So a lot of work with basic study skills is critical: active study and memory, test taking, creating study calendar, etc. Nearly all of these students benefit from learning relaxation methods that they can use during class or during a test, plus they really enjoy the physical sensations. (relaxation strategies referenced at end) A much smaller number who have had significant anxiety for a long period of time will benefit from desensitization. It was found that students who took a test anxiety reduction class at the College of Lake County increased their GPA by about three tenths of a point and enrolled in more credit hours while they were taking the class.

Because of time constraints it is not possible to get large numbers of students to participate in systematic desensitization, so a shorter relaxation strategy is taught. Students first learn a tense/relax deep muscle relaxation method (<http://clcpages.clcillinois.edu/home/cou052/RelaxationPage.htm>) by practicing using an audio recording. At the end of the relaxation session they imagine a “neutral scene” that is a personal favorite relaxing scene. This is practiced many times, so that the “neutral scene” becomes a conditioned stimulus for relaxation. During, or prior to the test, the student does a shorter deep breathing relaxation method, but imagines the same neutral scene. The body naturally relaxes a little, it takes the edge off of the anxious situation, and the student is better able to concentrate.

Fear of failure, or a long standing difficulty with tests, must be addressed. Development of positive self-statements helps. Disputing irrational belief is essential. For example, when a student says, “I can’t do math.” The expression, “ $2 + 2 = ?$ ” is written down. They laugh, and say, “I can do that.” That is used as a means to talk about specific areas, rather than overgeneralizations, such as: “I have trouble factoring binomials.”

Diet is of **major** concern. Many of these students have horrendous diets: snacking during the day, only eating a significant meal in the evening, lack of fresh fruits and vegetables, over consumption of high sugar and caffeine foods. Although blood tests are not conducted, it is evident that low blood sugar accounts for some of the test taking problems. There is also a

danger of significant eating disorders in this age group and regular referrals are made. The students without a clinical eating disorder start by keeping a diet log; slowly modifying what they eat, with an emphasis on breakfast. The results can often be dramatic.

Non-Traditional Aged College Students (Dr. Ross)

This is an absolutely delightful group with which to work. They tend to be motivated and will to try anything to improve their performance. Far more women than men self-identify as having test anxiety. Many students return years later to say, “This changed my life!” Teacher referrals are still important, but there are many referrals from other returning adult students. The intake interview is also used to determine a treatment plan.

They tend to be motivated to work hard, but need to find study strategies to help them stay focused and use their time efficiently: Use of study calendars, flash cards, and audio recordings to listen to in the car, simple test management strategies.

Very similar to traditional aged students, they benefit from learning basic relaxation strategies, and often apply it to other aspects of their lives. Some will need desensitization.

Coming back to school is scary. Many doubt their abilities and belief that all of the “kids” are better prepared and smarter than they are. This normally changes after a semester or two of success. Development of positive self-statements and challenging some of the irrational thinking is helpful.

One word adequately describes their life situation: **STRESS**. Provide counseling to help them deal with the stressors in their lives and to develop coping strategies. A returning adult student might be like this: female with children, recently divorced, came back to school to re-enter the job market, significant change in economic status, and then took on the stresses of going back to school. They are suddenly having trouble taking tests when they had been fine in previous schooling. They are lucky to still be vertical!

SUGGESTED READINGS:

The following are readings for counselors wishing to do more work with test anxiety. Included on the list are works that have been around for a long time, but represent some of the foundations of treatment in this area.

Beck, A. T. and Emery, G. (1985) Anxiety Disorders and Phobias: A Cognitive Perspective. Basic Books: New York

A very comprehensive guide about classical cognitive therapy. Of note is Beck's overview of anxiety and Emery's chapter on the principals of cognitive therapy.

Ellis, A. and Grieger, R. (1977) Handbook of Rational-Emotive Therapy, Springer: New York.

One of the classic works in the area of cognitive therapy. It includes a chapter by Ellis in which he explains his basic RET approach. Other chapters outline the treatment of other specific problems.

Jones, Leslie and Petruzzi, Diana. *Test Anxiety: A Review of Theory and Current Treatment*. Journal of College Student Psychotherapy. V10 (1), 1995, p.3-15.

In reviewing the most common forms of treatment for test anxiety, the authors build the case for the use of multifaceted approaches.

Ottens, Allen J. Coping with Academic Anxiety. New York: Rosen Publishing 1991.

A general guide about the anxiety experienced by students, especially in higher education. It is a great resource for counselors looking to gain insight into the cognitive factors that interfere with performance.

Spielberger, Charles D. and Vagg, Peter R. Test Anxiety: Theory, Assessment, and Treatment. Washington, D.C.: Taylor and Francis, 1995.

An excellent summary of general test anxiety terms and definitions. Contains a series of chapters analyzing research in assessment and treatment. Of particular note is the chapter by Spielberger and Vagg that gives an overview of test anxiety research, and the chapter by Anderson and Sauser the overviews the measurement of test anxiety. High recommended reading for persons wishing to do research in this area.

Zeidner, Moshe. Test Anxiety: The State of the Art. New York: Plenum Press, 1998.

Very comprehensive guide, especially summarizing some of the technical and assessment issues related to test anxiety. This would be a "must" for something in a graduate program thinking of doing research in this area. Includes some of the following: types of test anxious students, design problems likely to be encountered while doing research, subjective self-reports and other measures of test anxiety, how test anxiety effects the ability to process information, age and gender differences in test anxiety, and a summary of the various behavioral interventions.

Wolpe, J. (1982) The Practice of Behavior Therapy, Third Edition Pergamon: New York.

This includes some of the best descriptions available of the practice of systematic desensitization.

RESOURCES AVAILABLE FROM THE PRESENTERS:

From the College of Lake County:

Nearly all of Dr. Ross's materials were developed while on sabbatical leave and part of that leave agreement is that he cannot profit from the materials developed; so all of the materials on his web site are free of charge to school users. Fees are charged for on-site workshops. The materials can be accessed at:

<http://clcpages.clcillinois.edu/home/cou052/dranxiety.html>

Included are items such as: Counselors handbook, Interactive student workbook, relaxation recordings and scripts, intake interview, and more. All of the web pages are under reconstruction, so check back in December of 2006 to view the revised pages.

From Dr. Driscoll and the American Test Anxiety Association:

All of the materials referenced, including the Westside Test Anxiety Scale and the STARS-PAC Protocol can be obtained from Dr. Driscoll and/or the American Test Anxieties Association Web Site:

Program Director for the American Test Anxieties Association
Westside Psychology, Knoxville, Tennessee
800-769-0962 x104
www.amtaa.org or www.peacewithmyself.com

APPENDICIES TO FOLLOW:

- A.) Westside Test Anxiety Scales from Dr. Driscoll
- B.) Test Anxiety Intake Interview from Dr. Ross

Westside Test Anxiety Scale

Rate how true each of the following is of you, from extremely or always true, to not at all or never true. Use the following 5 point scale. Circle your answers:

5	4	3	2	1
extremely	highly	moderately	slightly	not at all
always	usually	sometimes	seldom	never
true	true	true	true	true

___ 1) The closer I am to a major exam, the harder it is for me to concentrate on the material.

5 4 3 2 1

___ 2) When I study for my exams, I worry that I will not remember the material on the exam.

5 4 3 2 1

___ 3) During important exams, I think that I am doing awful or that I may fail.

5 4 3 2 1

___ 4) I lose focus on important exams, and I cannot remember material that I knew before the exam.

5 4 3 2 1

___ 5) I finally remember the answer to exam questions after the exam is already over.

5 4 3 2 1

___ 6) I worry so much before a major exam that I am too worn out to do my best on the exam.

5 4 3 2 1

___ 7) I feel out of sorts or not really myself when I take important exams.

5 4 3 2 1

___ 8) I find that my mind sometimes wanders when I am taking important exams.

5 4 3 2 1

___ 9) After an exam, I worry about whether I did well enough.

5 4 3 2 1

___ 10) I struggle with written assignments, or avoid doing them, because I feel that whatever I do will not be good enough. I want it to be perfect.

5 4 3 2 1

_____ Sum of the 10 questions

< _____ > Divide the sum by 10. This is your Test Anxiety score.

Name _____ phone _____ email _____

School _____

© 2004 by Richard Driscoll, Ph.D.

You have permission to copy this material. (Please include author & copyright).

What does your score mean?

< ____ > Test Anxiety score (from 10 item scale).

Interpreting your test anxiety scores:

1.0—1.9 Comfortably low test anxiety

2.0—2.5 Normal or average test anxiety

2.5—2.9 High normal test anxiety

3.0—3.4 Moderately high (some items rated 4=high)

3.5—3.9 High test anxiety (half or more of the items rated 4=high)

4.0—5.0 Extremely high anxiety (items rated 4=high and 5=extreme)

Rationale.

The scale is constructed to measure anxiety impairments, with most items asking directly about performance impairment or about worrying, which interferes with concentration. Simple indications of physiological stress are found to be relatively weak indicators of performance impairments.

Incapacity (memory loss and poor cognitive processing) — 6 Items #1, 4, 5, 6, 8 & 10

Worry (catastrophizing) — 4 Items #2, 3, 7, 9

Physiological symptoms — no items.

Recommendations.

We have found that students who score at least 3.0 or more on our scale (moderately high anxiety) tend to benefit from anxiety reduction training, experiencing lower anxiety on tests and achieving higher grades.

See: www.peacewithmyself.com for our test anxiety reduction information and CD.

© by Richard Driscoll & Westside Psychology. You have permission to reprint this scale for personal use or to screen students in schools and colleges. Please include copyright, author, and web address.

www.peacewithmyself.com/

www@amtaa.org/westsidescale.html

865 690-0962 x104

Counselor: _____ Student Name _____ Date _____

Test Anxiety Intake Interview

By Dr. David Ross, College of Lake County

Each student experiences test anxiety in a unique manner. Some need more help with study skills, others need to control their physical reactions, and some need to find ways to control the general stress or pacing of their lives. Normally, a combination of strategies is what is needed to achieve better test performance. The goal of the intake is to determine which treatment strategies are best. It is not necessary to ask all of the following questions, during the interview you may begin to discover patterns and modify the interview accordingly.

GENERAL DESCRIPTION & PHYSICAL REACTIONS:

The student first needs to describe in detail what happens when she or he takes a test. They need to identify how their body felt and what was going through their mind. The tendency is to place blame on external sources, such as the teacher. It is helpful for the student to focus on a particular test or incident. On occasion a student will have some difficulty recalling the events of a particular test and describing them in behavioral terms. If the student really gets mentally blocked, have him or her get very relaxed and then you provide a mental image of a particular testing situation. Immediately afterward, write down what the student felt and thought during the mental imagery.

Typical questions:

Tell me what happened during your last test?

What did your body feel like? (They usually say, "Nervous." What does nervous feel like to you?) Does it go away when the test is over?

Did you feel like you were going to get sick to your stomach?

**Has this ever happened before and does it happen in situations other than testing?
When do you first recall it happening?**

COUNSELOR COMMENTS OR OBSERVATIONS:

Possible treatments if this is a problem area:

Instruction is a simple relaxation method to be used prior to and during the test.
Enrollment in a systematic desensitization program or comprehensive test anxiety reduction group.
Referral to a therapist that can provide assistance with generalized anxiety, especially if it is apparent that the anxiety reactions extend well beyond the school arena.

ATTITUDES AND BELIEFS:

Negative thinking can dramatically increase levels of anxiety. Because of previous experiences, students often say to themselves, "I'm going to fail again." or "I can't do this." Perfectionism can also be a problem when students believe that they must achieve an "A" or they have failed.

Typical questions:

What was going through your mind, what were you saying to yourself?

How did you feel when the test was over? Did you think you had passed?

COUNSELOR COMMENTS OR OBSERVATIONS:

Possible treatments if this is a problem area:

Conduct an analysis of self-statements during a test. Challenge irrational statements such as, "I can't do math."

Work with the student to develop a set of positive self-statements or affirmations to use prior to and during a test.

Referral for work with a therapist who is skilled with cognitive or RET treatments

STUDY ROUTINE:

Frequently students do not know how to study effectively or simply do not devote adequate time to it. The objective of the interview at this point is to gather detailed descriptions of what the student is doing to prepare for tests and complete assignments. One common response by students is to say, "I read my textbook." Try to get past this statement into how the student is reading and whether he or she is using active reading and study techniques, such as outlining or writing down questions.

Typical Questions:

Describe in detail what you do to get ready for a test.

When you say you read your textbook, how do you read?

How much time do you spend per day (week) studying?

Where and when do you study?

Do you find that your mind wanders while you study? What do you do when that happens?

As you are studying, are you aware of any self-talk or things you are saying to yourself?

COUNSELOR COMMENTS OR OBSERVATIONS:

Possible treatments if this is a problem area:

Referral to a study skills class.
Tutoring or individual instruction on how to study. In particular, teach the student how to use study materials that take advantage of multiple learning styles, such as: flash cards and graphic organizers.
Referral to a reading skills class.
Encourage the use of a study group or study buddy.
Request that the student spend more time studying, and that they keep a time log.

TEST TAKING SKILLS:

Frequently students lack experience in taking complex tests. In the case of returning adults, it may have been a considerable length of time since a test was taken. The goal of the interview is to determine if the student has an effective test-taking approach, or are certain behaviors getting in the way.

Typical Questions:

Describe the process or strategies that you use when you take a test.

Are there particular things you do with multiple choice tests? Essay Tests?

Do you skip questions?

What to you do when your mind goes blank?

What do you do just prior to the start of a test?

COUNSELOR COMMENTS OR OBSERVATIONS:

Possible treatments if this is a problem area:

Referral to a study skills class or test taking workshop.
Tutoring in test taking skills.
Have the student complete lots of practice tests.
Have the student create the tests by using chapter reviews or writing questions directly from the text.
Provide individual assistance on test taking strategies that you have used.
Encourage the student to adopt a deliberate test taking strategy such as skipping questions that don't result in immediate recall.
Teach the student a quick relaxation method (deep breathing, cue-controlled, images, etc.) that can be used just prior to or during a test.

LIFESTYLE CONSIDERATIONS:

Problems in diet, general health, and living situation can negatively impact school performance. School anxious students in particular seem to be more sensitive to dietary problems and stressors at home. These students may not have any more stress or dietary problems than other students, it is just that their predisposition to test taking problems makes them more vulnerable to other factors. The goal of this stage of the interview is to try to unearth any problems that can be changed or modified. In some cases one discovers some problems that cannot easily be controlled by the student. For example, maybe the student's spouse just died or has a severe illness. Treatment will simply be time and support, not a quick remedy.

Typical Questions:

Describe what and when you have eaten in the last 48 hours. Is that typical?

How much sleep do you normally get and what is the nature of your exercise routine?

Have there been any major changes occurring in your life recently? Describe these.

Describe your living situation. Who is there, what kind of pressures or support do they provide, is there encouragement and understanding about going to school?

Do you have any physical conditions that could possibly impact your school performance? Are you taking any medications for this condition?

COUNSELOR COMMENTS OR OBSERVATIONS:

Possible treatments if this is a problem area:

Get the student to eat regular meals throughout the day, especially breakfast. A balanced diet from all food groups is essential, emphasizing: proteins, fresh fruits and vegetables, and whole grain foods. Decrease things such as: caffeine, sugar, salt, and alcohol.

Consider referral to a physician or clinic, especially if there is a suspicion of an eating disorder, or diabetes.

Discuss the components of a healthy lifestyle, including how to get involved in regular aerobic exercise.

If there are major changes occurring in the student's life (death in family, divorce), suggest regular counseling to assist in adjustment.

Discuss how to renegotiate responsibilities within the family. For example, Mom is now in school, things aren't the same as they used to be, how can we change?

Gather information from a physician providing treatment for the student, ask for any possible side effects from medication.

Teach the student some techniques about how to put regular relaxation into their lifestyle: deep muscle relaxation, deep breathing, fantasy, taking walks, meditation, hot baths, etc.