

# Student Stress: Can You Manage It?

by Julian Melgosa

Gabriel, a second-year business student, couldn't take it any longer. He couldn't concentrate. Although he had his textbook open before him, his thoughts would wander all over. He was behind in his readings and assignments. Looming ahead was a report on the marketing strategies of a firm that he had yet to visit. In two weeks there would be an examination, and he still had classes to attend, a part-time job, and his social life.

In addition, there were other signals. Gabriel couldn't sleep properly. He felt overwhelmed and inadequate. Suicidal thoughts even occasionally crossed his mind.

Gabriel was certainly in need of help. Without it, he could well be on the way to a major problem. With some persuasion, he saw an experienced counselor. After a few weeks of counseling, Gabriel was in control of his life again.

What was wrong with Gabriel? Not depression. At least not yet. His problem was stress, one of the common maladies of college and university life. But how did counseling help him? How was he kept from becoming depressed? What would you do under similar circumstances?

## How does stress work?

Stress is a physiological reaction our bodies display when we face demands. It results in physical and psychological tension.

When our senses or memory or a combination of both warn us of a stressful situation, the entire organism prepares to face the danger. The stimulus may be real (for example, a car racing through a red light in front of you) or symbolic (worry about what will happen in a job interview tomorrow). But the physiological reactions are the same: the fight or flight response.

What triggers these responses? The key is the hypothalamus, a small gland at the base of the brain that controls various vital functions of the body. The hypothalamus receives the neural impulses carrying an alarm message. In order to make sure that the message reaches its destinations, it uses two independent ways of communication. First, the hypothalamus works through the nerve paths, using the sympathetic nervous system, and second, it works through the blood stream to reach the adrenal-cortical system.

The sympathetic nervous system, having received the order from the hypothalamus, carries the alarm message via nervous paths to various muscles and to the inner core (medulla) of the adrenal gland. The medulla releases epinephrine and norepinephrine into the blood stream. These hormones augment the state of arousal.

The hypothalamus also stimulates the pituitary gland, which produces the adrenocorticotrophic hormone (ACTH), also called "stress hormone." ACTH travels via blood stream to the adrenal cortex (the shell of the adrenal gland) and to other endocrine glands. The effects are immediate. A release of about 30 hormones produce the following effects:

- Increase of blood pressure and heartbeat
- Accelerated breathing
- Enlargement of the pupils
- Increase of perspiration
- Increase of blood-sugar levels
- Quick formation of blood clots in case of wounds
- Decrease of gastrointestinal activity
- Alterations in the skin (i.e., goose pimples, changes in its chemical composition)

When stressful situations are frequent, certain functions (especially the gastrointestinal and the cardiovascular systems) suffer, and the probability of contracting an illness increases. In addition to causing health hazards, stress also produces behavioral and mental effects.

### Are stressful situations always bad?

Despite the risks, stress is not wholly undesirable. Most experts on stress agree that a moderate amount of stress facilitates achievement. Hans Selye, one of the pioneers on stress research, affirmed that the total absence of stress could mean death.<sup>1</sup>

Early experiments with animals proved that a very low degree of stress limits the quality of performance. When the tension is moderate, performance increases to reach the highest levels. Finally, if stress is intense and prolonged, performance decreases. This is known as the Yerkes-Dodson Law (see Figure 1).<sup>2</sup>

This principle can be observed in human beings as well. Let's imagine two college students with about equal ability and similar initial motivation. The first one receives unconditional financial support from her family. The second one is sponsored on the condition that she maintains high academic standards. It is likely that the moderate amount of stress caused by the conditional sponsorship will enable the second student to obtain better results than her peer. Is it any wonder that the highest accomplishments are achieved in contexts of competition or when high goals are set? Stress gives people that additional burst of energy to excel.

**Figure 1 - The Yerkes-Dodson Curve**



A moderate degree of stress facilitates high performance, but beyond a certain point, the quality of performance decreases.

### The effect of stress

But what happens when someone experiences an extremely intense level of stress? Or if the stress is not excessively intense, but continues for months or even years? The effects under such conditions can be devastating, as many psychological studies report. There have been cases of soldiers dying in the battle front not of firearms injuries but of intolerable stress produced by fear. P. G. Zimbardo records the case of a young woman admitted into a hospital because she was frightened of dying.<sup>3</sup> Various clinical tests and observations showed no evidence of malfunction. The woman died the next day. Later, it became known that someone had solemnly predicted her death before she reached the age of 23, and two days before her 23rd birthday she passed away. Her own fear had killed her. Cases like these, while illustrating the effect of intensely stressful situations, are uncommon. It is more frequent, though, to find individuals who perform better because of stress in their job, family situation, or studies. In these instances, what are the effects of stress?

**Table 1 - Effects of Stress on Cognitive Ability**

Functions	Effects
Concentration	Difficulty to initiate tasks that require some concentration.
Attention	As stress increases, the attention span shortens.
Memory	Both long-term and short-term memory decrease.
Reflex actions	Tasks requiring a quick and spontaneous response are performed unpredictably.
Problem solving	Problems are solved with a considerable number of errors.
Evaluation	Any work of assessment tends to be unbalanced.
Thinking process	Organization of thoughts does not follow logical patterns.

Of special relevance to students are the effects of stress on their cognitive abilities. Table 1 includes the specific areas of cognition that are impaired under stressful conditions. In addition, feelings and emotions are also affected. The person under stress experiences restlessness, becomes hypochondriacal, loses patience and tolerance, and gets flooded with feelings of inadequacy and low self-esteem. Finally, attitudes and behaviors also are modified. Relationships suffer, sleeping patterns vary unpredictably, the use of alcohol, tobacco and other drugs is uncontrolled, and the person withdraws from work or studies.

### How to deal with stress

1. *Know yourself.* A basic source of stress is oneself. There are individuals who, because of their own personality, are more vulnerable to stress than others under the same amount of pressure. Table 2 outlines a number of characteristics for the A and B personality types. Cardiologists Lazarus and Folkman introduced this terminology, widely used today.<sup>4</sup>

A type subjects have a high risk of heart disease, whereas the B types have a low risk.

But can we change our personality type? Personality has a strong genetic component, and much of the shaping takes place during our early years. However, changes can be achieved through goal setting and sustained effort. This means that an individual with type A personality may set goals (such as controlling his hostile thoughts, being tolerant, practicing relaxation, etc.) and accomplish them through persistence and self-control.

TYPE A	TYPE B
Constant movement	Motor calmness
Impatience	Patience
Tense facial expression	Relaxed facial expression
Roar with laughter	Smiles
Professional dissatisfaction (wishes to be promoted)	Content with professional level
Often complains	Rarely complains
Loud and quick conversation	Quiet and paused conversation
Rushes to talk	Listens attentively

Type A subjects are more prone to suffer from stress and be at higher risk of coronary disease than type B individuals. However, a very extreme type B may lack the necessary energy to face tasks that need a quick move.

2. *Employ efficient study techniques.* One significant source of stress among college and university students is the lack of specific and efficient study techniques. Frustration results when one tries to face multiple tasks (such as readings, class notes, reports, exams, etc.) at the same time. This frustration becomes especially intense when individuals do not possess effective study skills. Students can prevent stress if they are equipped with skills that include fast reading, underlining, outlining, note-taking techniques, memorization, preparation for examinations, and exam writing skills. One simple example that has helped thousands of undergraduate students is the PQRS method for studying textbook chapters. See Table 3.

3. *Learn to manage time.* One helpful tool in reducing stress is time management skills. Students often do not practice these skills, and as a result may experience intolerable stress. Here are a few time management principles applicable to study situations:

- a. List all the tasks that need to be completed within the next week or so.
- b. Distribute them over specific days and available hours. Do not hesitate to eliminate what is least necessary. It is better to study three-fourths of the material intensively for an exam than to become frustrated by trying to cover all the material superficially.

**Table 3 - The PQRST Method to Study a Chapter**

P Stage (Preview)	Preview the entire chapter to “feel” the main structure and issues. Look attentively at the introduction and the summary/conclusion.
Q Stage (Question)	The main issues have been identified but not examined. Now is the time to ask yourself: “What are the points that the author is trying to convey?”
R Stage (Read)	The tentative interpretation done in the previous stage is now confirmed through a careful reading of the text. Underline the key words and fundamental ideas. Now you have an accurate idea of the content. But there are two other stages.
S Stage (Self-recitation)	Put into your own words the main ideas of the chapter. Do this aloud without looking at the book but checking to make sure that you are getting it right. This is a preliminary diagnostic step that will alert you to possible gaps or misunderstandings.
T Stage (Test)	Try to create as many short questions as possible and offer valid answers to them. This will take care of the facts. Then, create wider questions that demand understanding, application, and relationships between concepts. This is an invaluable exercise to prepare for the examination, but should be practiced as soon as a chapter has been read!

c. Allow for unexpected activities. If they don't materialize, you will have some extra time for further study.

d. Avoid distractions. Once you have allotted a certain amount of time to a particular activity, reserve it as sacred to complete the task. Ignoring distraction may cause it to disappear.

e. Take time for relaxation. Physical exercise, time spent with friends or family, and personal devotions are necessary even during the busy times of student life.

4. *Build strong interpersonal relations.* Interpersonal relationships are an important source of stress at all levels and ages. University students are no exception. Friends, peers, spouses, siblings, teachers, parents, children, and neighbors can be the origin of great satisfaction but can also produce many headaches, depending on the quality of the relationship. It is virtually impossible to assimilate academic content or even to concentrate if one is at odds with someone.

At the same time, personal relationships (such as spouse or close friend) and supportive social networks (such as church or workplace) can provide support for those suffering from stress. Personal attitude can make a difference here. Christian goals, such as being at peace with all (Romans 12:18) and settling disputes even before approaching the Lord (Matthew 5:23, 24), are invaluable for mental balance.

5. *Plan well your finances.* For many students, finances constitute a stressful area. A student who does not know how bills will be paid is not ready to learn well. The best way to face this problem is to prevent it through appropriate planning and budgeting. If funds are insufficient, it is better to postpone the studies and find additional sources of financial support.

6. *Prepare well for your examinations.* Examinations, particularly the finals, are a formidable source of stress and emotional turmoil. Shirley Fisher, professor of psychology at the University of Strathclyde in Glasgow, administered a number of psychoneurotic measures to Scottish students before and after final examinations.<sup>6</sup> Anxiety and obsessiveness scores rose during the weeks leading up to examinations. After the examinations, she found an increase in depression scores, possibly motivated by reflection on mistakes and discussions with peers. Much of the stress caused by examinations is preventable. See Table 4.

## The spiritual component

A colleague who works as a full-time psychotherapist in a renowned clinic told me of the homemade coping techniques used by many of his clients. He told me that some of the highly educated people employ incredibly superstitious procedures. For example, many, who are terrified of flying but must do so, hold mascots or good-luck charms as they enter the cabin. At the taking-off moment, they hold on to these objects very tightly. My immediate personal interpretation of the behavior was: "When circumstances escape from their control, people need to find support in the supernatural. Many do not believe in God, so in their need they turn to the amulets."

What a contrast with the Christian believer who, when feeling fearful about the flight, offers a silent prayer to the Creator, trusting in His love, care, power, and wisdom! Human beings need divine support in times of conflict. Relying on God the Creator, the source of all life, is the safest way to meet this basic need. A spiritual relationship with God is the best remedy for stress.

This is a subjective experience but very real for those who live through it.

There are two types of spiritual support. Both are necessary: the personal as well as the corporate spiritual experience. The first is realized through intimacy with the Creator--talking to God as to a friend. Prayer and studying God's Word bring relief from emotional turmoil. The second is collective worship and fellowship. This strengthens our faith and brings us practical support as we develop a sense of belonging to a spiritual family.

If God is sensitive enough to acknowledge the life or death of a sparrow (Luke 12:6), there is no doubt that He will care for a student under academic stress.

*Julian Melgosa (Ph.D., Andrews University) directs the M.A. in Education program at Newbold College and also teaches at the Open University in England. He is the author of the book ¡Sin estrés! (Madrid, Spain: Editorial Safeliz, 1994). His address: Newbold College; Binfield, Bracknell, Berks. RG12 5AN; England.*

## Table 4 - Preparing for the Exam

### Prior to the examination:

1. *Plan well in advance.* Make a timetable with all the material to study for the exam and with the corresponding dates.
2. *Overlearn the material.* Using the available study skills, study to the point of reaching a high level of mastery. Research shows that overlearning may be the most alleviating factor of anxiety.
3. *Simulate the exam situation.* Performance (i.e., actually writing essays, choices of self-developed multiple choice items, or even oral explanations, depending on the mode of assessment) will tell you whether learning has really occurred. For anxious students, this exercise serves not only as a review but also as a booster of personal confidence.
4. *Make the revision as active as possible.* Study taking notes, talking aloud, perhaps walking if your learning style permits. Record on tape the material studied, and when your eyes get tired, listen to it.
5. *Relax on the day before the final.* The day before the exam should be a light and restful one with a good night's sleep, although you may wish to review what you have studied. Students who tend to experience anxiety can benefit from the technique of systematic desensitization. This may require the input of a psychotherapist. Become well trained in muscle relaxation. When relaxation is achieved, vividly imagine the examination room, the exam paper, the teacher/proctor, etc. With relaxation, anxiety disappears.

### During the examination:

1. *Arrive a few minutes early.* Be at the examination hall 10 or 15 minutes before the scheduled time. Arriving too early may increase anxiety, and arriving just on time or late will not provide a good start, which is basic to fight tension.
2. *Breathe deeply.* Breathing is the most portable stress antidote. Practice occasional deep breathing before and during the exam. When too nervous or "going blank," many students have benefited from two to three deep breaths of eight to ten seconds each.
3. *Remember, it is normal to be confused.* At the beginning, nothing seems to make sense. But this is a normal brain pattern for all individuals.
4. *If in doubt, ask.* No matter how well constructed, exams may contain mistakes, faults in expressions, or unclear instructions. Most surveys agree that, on average, one question asked by a single examinee reflects the doubt of about half of the group.
5. *Use test-taking skills.* Read each question very carefully. Answer first what you know best. Allow specific blocks of time for examination tasks. Develop a quick written outline for the essay questions. Allow time to review your paper toward the end.

## Notes and references

1. See H. Selye, *The Stress of Life* (New York: McGraw-Hill, 1956).
2. R. M. Yerkes and J. D. Dodson, "The Relation of Strength of Stimulus to Rapidity of Habit Formation," *Journal of Comparative Neurological Psychology*, 18 (1988), pp. 459-482.
3. See P. G. Zimbardo, *Psychology and Life*, 10th edition (Glenview, Ill.: Scott Foresman, 1979).
4. See R. S. Lazarus and S. Folkman, *Stress, Appraisal and Coping* (New York: Springer, 1984).
5. See R. L. Atkinson, R. C. Atkinson, E. E. Smith, and D. J. Bem, *Introduction to Psychology*, 11th edition (Fort Worth, Texas: Harcourt Brace College Publishers, 1993).
6. See S. Fisher, *Stress in Academic Life. The Mental Assembly Line*. (Milton Keynes: SRHE and Open University, 1994).