

Wise Teacher - Healthy Child

courses for teachers on dietetics and healthy nutrition

of children and adolescents

Leonardo da Vinci – Partnerships -

Project number: 2013– 1-PL1-LEO04-38496-2

Curriculum Course : Stress and health

1) Introduction

In recent years we are seeing an increase of the causes of stress and it is clear what each of us can be exposed to physical and psychological damage that derive from it.

Scientific evidence shows the impact of stress on altering the conditions of health and the importance of an integrated approach (Gaston et al., 1987; King et al., 1991; Chiu et al., 2003; Rosenkranz et al. , 2003; Ross, 2005; Levy et al., 2006; Drossman, 2011).

Stressors have a major influence upon mood, our sense of well-being, behavior, and health. Acute stress responses in young, healthy individuals may be adaptive and typically do not impose a health burden. However, if the threat is unremitting, particularly in older or unhealthy individuals, the long-term effects of stressors can damage health. The relationship between psychosocial stressors and disease is affected by the nature, number, and persistence of the stressors as well as by the individual's biological vulnerability (i.e., genetics, constitutional factors), psychosocial resources.

This course will focus on the relationship between stress and health as well as current stress management practice and theory. Provided will be an understanding of stress and its physical, psychological and social effects.

This project has been funded with support from the European Commission.

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Target Group: Teachers from all types of schools (primary, secondary and High School).

Duration: 4 hours

Useful links:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568977/>
<http://catalog.clarksoncollege.edu/academic-catalog/health-care-services-programs/health-care-services-course-descriptions>
<http://www.alleydog.com/101notes/stress&health.html#.VJhlvV4AKA>
<http://www.healthstatus.com/>
<http://psychcentral.com/lib/the-impact-of-stress/>
<http://www.successfulaging.ca/programs/stress/>

II) Course Overview and Objectives

The aim of the syllabus is:

- to provide teachers from all types of schools more information and knowledge about stress, its causes and effects.
- Consider the impact of stress on the health and wellbeing of peoples;
- to offer people some practical advice about how to manage it.
- By the end of this course teachers will have a better understanding of personal stressors and vulnerability to stress.
- Providing methodological training for participating teachers in order to carry out various educational activities in class

The course will address the effects of a wide variety of life stressors – such as chronic illness, the death of a loved one, childhood trauma, and financial hardship – on health problems such as substance abuse, mental disorders, and physical illness

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III) Content of the course

1. What Is Stress?

In this part, we will explore stress - what it is, how it progresses, and the type of damage it can cause.



Stress is a physical reaction to a perceived threat. Everyone reacts to stress differently depending on their personality and how they respond to pressure. While one person may thrive in a high pressure environment, for example, this may be unbearable for another.

Stress is an individual experience that can be caused by many different kinds of situations and events, including: work, personal, life events.

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Stress can also be caused by a build-up of small things over time, for example, not feeling valued at work or finding it hard to deal with a child's behaviour. Sometimes there is no obvious cause for stress. There is a difference between temporary stress, which usually goes away once a specific problem is resolved, and long-term, sustained stress that can be damaging to you, your health and those around you.

While in the short term, stress can be beneficial in helping to improve and drive our performance, if the stress goes on for too long it can have the opposite effect.

1.1 History of stress

The term stress was borrowed from the field of physics by one of the fathers of stress research Hans Selye. In physics, stress describes the force that produces strain on a physical body (i.e.: bending a piece of metal until it snaps occurs because of the force, or stress, exerted on it).

Hans Selye began using the term stress after completing his medical training at the University of Montreal in the 1920's. He noticed that no matter what his hospitalized patients suffered from, they all had one thing in common. They all looked sick. In his view, they all were under physical stress.

He proposed that stress was a non-specific strain on the body caused by irregularities in normal body functions. This stress resulted in the release of stress hormones. He called this the "General Adaptation Syndrom" (a closer look at general adaptation syndrome, our body's short-term and long-term reactions to stress).

Selye pioneered the field of stress research and provided convincing arguments that stress impacted health. But not all agreed with his physiological view of stress as a non-specific phenomenon though. What about psychological stress?(i.e.: loss of the beloved, frustration, tending to an ill child, or work problems)? Could these situations also be stressful? Many physicians, psychologists, and researchers thought so.

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2. All Stress is Bad for us ?

Not necessarily. We know that we perform best when under stress, when we have to gather all our resources to produce results, like before a big meeting or an exam. Sort of like our ancestors when being chased by a lion. Stress forces the production of a range of hormones that boost our reaction: run or fight. We get pumped on epinephrine (adrenaline) and cortisol, get a burst of energy to cope with a stressful situation. For a long time, it was believed that only one thing suffers while we are under stress: our immune system. The Stanford University School of Medicine researchers now found that short-term stress actually stimulates immune activity.

For instance, stress can improve how your heart works and protect your body from infection. In one study, individuals who experienced moderate levels of stress before surgery were able to recover faster than individuals who had low or high levels.

3. Identifying Stressors

A stressor is a chemical or biological agent, environmental condition, external stimulus or an event that causes stress to an organism.[citation needed]

An event that triggers the stress response may include:

environmental stressors (elevated sound levels, over-illumination, overcrowding)

daily stress events (e.g., traffic, lost keys, quality and quantity of physical activity)

life changes (e.g., divorce, bereavement)

workplace stressors (e.g., high job demand vs. low job control, repeated or sustained exertions, forceful exertions, extreme postures)

chemical stressors (e.g., tobacco, alcohol, drugs)

social stressor (e.g., societal and family demands)

Stressors have physical, chemical and mental responses inside of the body.

4. STRESS AND ILLNESS

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Stress has powerful effects on mental functioning, mental and physical performance, interpersonal encounters, and physical well-being.

In the Principles of Internal Medicine (Harrison) it was reported that 50-80% of all physical disorders have psychosomatic or stress related origins.

4.1 The impact of Stress

Stress often is accompanied by an array of **physical reactions**. These symptoms can be characteristic of other physical or mental disorders.



Physical Signs of stress can include the following:

- sleep disturbance (insomnia, sleeping fitfully)
- clenched jaw
- grinding teeth

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- digestive upsets
- lump in your throat
- difficulty swallowing
- agitated behavior, like twiddling your fingers
- playing with your hair
- increased heart rate
- general restlessness
- sense of muscle tension in your body, or actual muscle twitching
- noncardiac chest pains
- dizziness, lightheadedness
- hyperventilating
- sweaty palms
- nervousness
- stumbling over words
- high blood pressure
- lack of energy
- fatigue

Cognitive signs of stress include:

- mental slowness
- confusion
- general negative attitudes or thoughts
- constant worry

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- your mind races at times
- difficulty concentrating
- forgetfulness
- difficulty thinking in a logical sequence
- the sense that life is overwhelming; you can't problem-solve

Emotional signs of stress include:

- irritation
- no sense of humor
- frustration
- jumpiness, overexcitability
- feeling overworked
- feeling overwhelmed
- sense of helplessness
- apathy

Behavioral signs of stress include:

- decreased contact with family and friends
- poor work relations
- sense of loneliness
- decreased sex drive
- avoiding others and others avoid you because you're cranky
- failing to set aside times for relaxation through activities such as hobbies, music, art or reading

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When stress and anxiety escalate without a means to cope with the stress, they often are linked to many troublesome psychological and physiological conditions. Oftentimes, psychological distress accompanies and/or produces these conditions, which include:

- amnesia
- sleepwalking
- multiple personality
- obsessive-compulsive disorders
- phobias
- generalized anxiety disorder
- hypochondriasis (fear and excessive complaints of bodily disease)
- high blood pressure

Since prolonged stress can impact your health, it's important to develop positive coping mechanisms to manage the stress in your life.

5.Managing Stress

If you do not end up identifying a method to handle your stress then it eventually can lead to a heightened sense of dysfunction. This may result in increased anxiety or a sense of depression because you're not mastering your world. Feeling depressed (for example, sad, pessimistic, hopeless or helpless) is a common reaction to stress. When these symptoms are temporary, they may simply be a reflection of life's normal ups and downs. But if they persist for long periods of time, especially after the stressful situation has passed, you may have a problem that could benefit from professional help.

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Stress Management is the ability to maintain control when situations, people, and events make excessive demands.

How Can You Manage Your Stress?



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5.1. What are some strategies?

Stress Relief Strategies

1. Body relaxation exercises

- breathing techniques
- guided imagery

2. Physical exercise

- yoga
- work out routine

3. Meditation

4. Counseling

- talk therapy
- life coaching

6. Benefits of Stress Management

Ideally, stress management needs to begin when we're young so that we don't have battered, scarred trunks when we reach mid life and beyond. But, the reality is, most of us never consider stress as damaging ...until we've been reacting to it for a long time. The good news about our amazing bodies is that once we identify the stressors and make some definite life style changes, we can often reverse a lot of the damage. Sort of like being able to get some wood filler, apply it to the nicks on the tree trunk, then sand it down to recreate a smooth finish on your trunk.

Stress management can really promote better health.

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6.1 What are some of the benefits of stress reduction?

- Better immune function
 - Less illnesses and physical complaints
 - More energy
 - Feeling more relaxed
 - Sleeping better
 - Better digestion
 - Calmer mood
 - More focused, more positive

7. LEARNING ACTIVITIES

1. Discussions directed on the question and answer of participants.
2. Group discussions. on how best exemplify the preparation of food for a healthy diet.
3. Practical exercises.
4. Answers to common questions of the participants.

IV) Recommended readings:

Gaston et al., 1987; King et al., 1991; Chiu et al., 2003
Salye, H. (1956). The stress of life. McGraw-Hill, Milano.
Drossman, D.A. (2011). Abuse, trauma and GI illness: is there a link?. American Journal of Gastroenterology, 106:14-25.
Gaston, L., Lassonde, M., Bernier-Buzzanga, J., et al. (1987). Psoriasis and stress: a prospective study. Journal of the American Academy of Dermatology, 17: 82-86.
Rosenkranz, M.A., et al. (2003). Affective style and in vivo immune response: neurobehavioral mechanisms . Proceedings of the National Academy of Sciences, 100: 11148-11152.
Cohen, S., Wills, T.A. (1985). Stress, social support, and the buffering process. <i>Psychological Bulletin</i> , 98, 310-357.
Cohen, S., Tyrell, D.A.J., Smith, A.P. (1991). Psychological stress and susceptibility to the common cold. <i>New England Journal of Medicine</i> , 326, 606-612.

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