



Mismatched: Your Brain Under Stress

Educational Unit

Lesson Plan Module #1: *Stress and Health*

Overview

Stress is a natural mental and physical reaction to life experiences. Everyone experiences stress from time to time. Anything from everyday responsibilities to serious life events can trigger stress. For immediate, short-term situations, stress can be beneficial to your health. It can help you cope with potentially serious situations. Your body responds to stress by releasing hormones that increase your heart and breathing rates and ready your muscles to respond. This is often referred to as the 'Fight or Flight' response.

If you are constantly under stress, you can have physical symptoms, such as headaches, upset stomach, high blood pressure, chest pain, and problems with sex and sleep. Stress can also lead to emotional problems, depression, panic attacks, or other forms of anxiety and worry.

Lesson Objectives

After viewing Episode 1: *Stress and Health*, participants will be able to:

1. Identify who discovered the General Adaptation Syndrome (GAS).
2. Report what the percentage of emergency room visits that are estimated to be due to stress.
3. State the type of stress more adapted to humans and explain why this causes a mismatch.
4. Explain the 'Fight or Flight' response and give examples.
5. Summarize the stages/phases of GAS and explain why this was an important discovery.

Vocabulary

Eustress

Distress

Sympathetic nervous system

'Fight or Flight' response

Acute Stress

Chronic Stress



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Lesson Discussion Points

- Stress has always been a part of life. But is it getting worse?
- Are we more stressed today than before?
- Why are we mismatched?
- What is the difference between acute and chronic stress?
- What were the findings of Hans Selye? Why are they important?

Activities:

Activity #1: Complete the attached Holmes-Rahe Life Stress Inventory.

Participants will complete the inventory and discuss.



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The Holmes-Rahe Life Stress Inventory The Social Readjustment Rating Scale

INSTRUCTIONS: Mark down the point value of each of these life events that has happened to you during the previous year. Total these associated points.

LIFE EVENT	MEAN VALUE
1. Death of spouse	100
2. Divorce	73
3. Marital Separation from mate	65
4. Detention in jail or other institution	63
5. Death of a close family member	63
6. Major personal injury or illness	53
7. Marriage	50
8. Being fired at work	47
9. Marital reconciliation with mate	45
10. Retirement from work	45
11. Major change in the health or behavior of a family member	44
12. Pregnancy	40
13. Sexual Difficulties	39
14. Gaining a new family member (i.e. ... birth, adoption, older adult moving in, etc.)	39
15. Major business readjustment	39
16. Major change in financial state (i.e. ... a lot worse or better off than usual)	38
17. Death of a close friend	37
18. Changing to a different line of work	36
19. Major change in the number of arguments w/spouse (i.e. ... either a lot more or a lot less than usual regarding child rearing, personal habits, etc.)	35
20. Taking on a mortgage (for home, business, etc. ...)	31
21. Foreclosure on a mortgage or loan	30
22. Major change in responsibilities at work (i.e. promotion, demotion, etc.)	29
23. Son or daughter leaving home (marriage, attending college, joined mil.)	29
24. In-law troubles	29
25. Outstanding personal achievement	28
26. Spouse beginning or ceasing work outside the home	26
27. Beginning or ceasing formal schooling	26
28. Major change in living condition (new home, remodeling, deterioration of neighborhood or home etc.)	25
29. Revision of personal habits (dress manners, associations, quitting smoking)	24
30. Troubles with the boss	23
31. Major changes in working hours or conditions	20
32. Changes in residence	20
33. Changing to a new school	20
34. Major change in usual type and/or amount of recreation	19
35. Major change in church activity (i.e. ... a lot more or less than usual)	19
36. Major change in social activities (clubs, movies, visiting, etc.)	18
37. Taking on a loan (car, tv, freezer, etc.)	17
38. Major change in sleeping habits (a lot more or a lot less than usual)	16
39. Major change in number of family get-togethers ("")	15
40. Major change in eating habits (a lot more or less food intake, or very different meal hours or surroundings)	15
41. Vacation	13
42. Major holidays	12
43. Minor violations of the law (traffic tickets, jaywalking, disturbing the peace, etc.)	11

Now, add up all the points you have to find your score

TOTAL

150pts or less means a relatively low amount of life change and a low susceptibility to stress-induced health breakdown.
150 to 300 pts implies about a 50% chance of a major health breakdown in the next 2 years.
300pts or more raises the odds to about 80%, according to the Holmes-Rahe statistical prediction model.



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Activity #2: Watch Video

View Episode #1: *Stress and Health* and discuss content using the discussion questions above.



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Name _____ Grade or Employee Dept _____

Module #1 Quiz: *Stress and Health*

Directions: Please circle the correct answer.

- 1. Happiness in America is at an all-time low.**
 - a. True
 - b. False

- 2. People in the workplace are working less and enjoying life more.**
 - a. True
 - b. False

- 3. Mundane work motivates us to learn new skills and perform to our potential.**
 - a. True
 - b. False

- 4. When we experience stress, our mind and body resort to a primal reactionary system causing an evolutionary mismatch with our environment.**
 - a. True
 - b. False

- 5. Prolonged exposure to stress can bring disease, exhaustion, or premature death.**
 - a. True
 - b. False

- 6. What does NOT happen when the 'Fight or Flight' response is activated?**
 - a. Senses are sharpened
 - b. There is an increase in heart rate
 - c. There is an increase in blood pressure
 - d. There is a decrease in mental awareness



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- 7. Who discovered the General Adaptation Syndrome (GAS)?**
 - a. Paul Rosch
 - b. Hans Selye
 - c. Howard Grossman
 - d. Michael DeBakey

- 8. What is NOT a stage/phase of the GAS?**
 - a. Alarm
 - b. Resistance
 - c. Exhaustion
 - d. Weakness

- 9. According to Dr. Daniel Kirsch, what is the percentage of emergency room visits that are due to stress?**
 - a. 25%
 - b. 50%
 - c. 75%
 - d. 100%

- 10. The 'Fight or Flight' response activates the_____nervous system.**
 - a. Comparative
 - b. Sympathetic
 - c. Compassionate
 - d. Active