

Cheat Sheet: Stress and Health

Essential Concepts

Defining Stress

Stress is a process whereby an individual perceives and responds to events appraised as overwhelming or threatening to one's well-being. The scientific study of how stress and emotional factors impact health and well-being is called health psychology, a field devoted to studying the general impact of psychological factors on health. The body's primary physiological response during stress is the fight-or-flight response, which involves the coordinated activity of both the sympathetic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis. Hans Selye, a noted endocrinologist, referred to these physiological reactions to stress as part of general adaptation syndrome, which occurs in three stages: alarm reaction (fight-or-flight reactions begin), resistance (the body begins to adapt to continuing stress), and exhaustion (adaptive energy is depleted, and stress begins to take a physical toll).

Stressors can be chronic (long term) or acute (short term), and can include traumatic events, significant life changes, daily hassles, and situations in which people are frequently exposed to challenging and unpleasant events. Many potential stressors include events or situations that require us to make changes in our lives, such as a divorce or moving to a new residence. The Social Readjustment Rating Scale (SRRS) can be used to measure stress by assigning a number of life change units (LCUs) to life events that typically require some adjustment, including positive events. Although the SRRS has been criticized on a number of grounds, extensive research has shown that the accumulation of many LCUs is associated with increased risk of illness. Many potential stressors also include daily hassles, which are minor irritations and annoyances that can build up over time. In addition, jobs that are especially demanding, offer little control over one's working environment, or involve unfavorable working conditions can lead to job strain, thereby setting the stage for job burnout.

Stress and Illness

Psychophysiological disorders are physical diseases that are either brought about or worsened by stress and other emotional factors. One of the mechanisms through which stress and emotional factors can influence the development of these diseases is by adversely affecting the body's immune system. A number of studies have demonstrated that stress weakens the functioning of the immune system. Cardiovascular disorders are serious medical conditions that have been consistently shown to be influenced by stress and negative emotions, such as

anger, negative affectivity, and depression. Other psychophysiological disorders that are known to be influenced by stress and emotional factors include asthma and tension headaches.

Regulating Stress

When faced with stress, people must attempt to manage or cope with it. In general, there are two basic forms of coping: problem-focused coping and emotion-focused coping. Those who use problem-focused coping strategies tend to cope better with stress because these strategies address the source of stress rather than the resulting symptoms. To a large extent, perceived control greatly impacts reaction to stressors and is associated with greater physical and mental well-being. Social support has been demonstrated to be a highly effective buffer against the adverse effects of stress. Extensive research has shown that social support has beneficial physiological effects for people, and it seems to influence immune functioning. However, the beneficial effects of social support may be related to its influence on promoting healthy behaviors. There are various means of managing stress, including exercise, relaxation and meditation techniques such as the relaxation response, and biofeedback, all of which have shown to be effective in reducing the physiological and psychological effects of stress.

Happiness and Flow

Happiness is conceptualized as an enduring state of mind that consists of the capacity to experience pleasure in daily life, as well as the ability to engage one's skills and talents to enrich one's life and the lives of others. Although people around the world generally report that they are happy, there are differences in average happiness levels across nations. Although people have a tendency to overestimate the extent to which their happiness set points would change for the better or for the worse following certain life events, researchers have identified a number of factors that are consistently related to happiness. In recent years, positive psychology has emerged as an area of study seeking to identify and promote qualities that lead to greater happiness and fulfillment in our lives. These components include positive affect, optimism, and flow.

Glossary

acute stressors

brief focal events that sometimes continue to be experienced as overwhelming well after the event has ended

alarm reaction

first stage of the general adaptation syndrome; characterized as the body's immediate physiological reaction to a threatening situation or some other emergency; analogous to the fight-or-flight response

biofeedback

stress-reduction technique using electronic equipment to measure a person's involuntary (neuromuscular and autonomic) activity and provide feedback to help the person gain a level of voluntary control over these processes

cardiovascular disorders

disorders that involve the heart and blood circulation system

chronic stressors

events that persist over an extended period of time

coping

mental or behavioral efforts used to manage problems relating to stress, including its cause and the unpleasant feelings and emotions it produces

cortisol

stress hormone released by the adrenal glands when encountering a stressor; helps to provide a boost of energy, thereby preparing the individual to take action

daily hassles

minor irritations and annoyances that are part of our everyday lives and are capable of producing stress

distress

bad form of stress; usually high in intensity; often leads to exhaustion, fatigue, feeling burned out; associated with erosions in performance and health

eustress

good form of stress; low to moderate in intensity; associated with positive feelings, as well as optimal health and performance

fight-or-flight response

set of physiological reactions (increases in blood pressure, heart rate, respiration rate, and sweat) that occur when an individual encounters a perceived threat; these reactions are produced by activation of the sympathetic nervous system and the endocrine system

flow

state involving intense engagement in an activity; usually is experienced when participating in creative, work, and leisure endeavors

general adaptation syndrome

Hans Selye's three-stage model of the body's physiological reactions to stress and the process of stress adaptation: alarm reaction, stage of resistance, and stage of exhaustion

habits

automatic behaviors that are formed through repeated actions over time

happiness

enduring state of mind consisting of joy, contentment, and other positive emotions; the sense that one's life has meaning and value

health psychology

subfield of psychology devoted to studying psychological influences on health, illness, and how people respond when they become ill

heart disease

several types of adverse heart conditions, including those that involve the heart's arteries or valves or those involving the inability of the heart to pump enough blood to meet the body's needs; can include heart attack and stroke

hypertension

high blood pressure

hypothalamic-pituitary-adrenal (HPA) axis

set of structures found in both the limbic system (hypothalamus) and the endocrine system (pituitary gland and adrenal glands) that regulate many of the body's physiological reactions to stress through the release of hormones

immune system

various structures, cells, and mechanisms that protect the body from foreign substances that can damage the body's tissues and organs

immunosuppression

decreased effectiveness of the immune system

job burnout

general sense of emotional exhaustion and cynicism in relation to one's job; consists of three dimensions: exhaustion, depersonalization, and sense of diminished personal accomplishment

job strain

work situation involving the combination of excessive job demands and workload with little decision making latitude or job control

lymphocytes

white blood cells that circulate in the body's fluids and are especially important in the body's immune response

optimism

tendency toward a positive outlook and positive expectations

perceived control

peoples' beliefs concerning their capacity to influence and shape outcomes in their lives

positive affect

state or a trait that involves pleasurable engagement with the environment, the dimensions of which include happiness, joy, enthusiasm, alertness, and excitement

positive psychology

scientific area of study seeking to identify and promote those qualities that lead to happy, fulfilled, and contented lives

primary appraisal

judgment about the degree of potential harm or threat to well-being that a stressor might entail

psychoneuroimmunology

field that studies how psychological factors (such as stress) influence the immune system and immune functioning

psychophysiological disorders

physical disorders or diseases in which symptoms are brought about or worsened by stress and emotional factors

relaxation response technique

stress reduction technique combining elements of relaxation and meditation

secondary appraisal

judgment of options available to cope with a stressor and their potential effectiveness

Social Readjustment Rating Scale (SRRS)

popular scale designed to measure stress; consists of 43 potentially stressful events, each of which has a numerical value quantifying how much readjustment is associated with the event

social support

soothing and often beneficial support of others; can take different forms, such as advice, guidance, encouragement, acceptance, emotional comfort, and tangible assistance

stage of exhaustion

third stage of the general adaptation syndrome; the body's ability to resist stress becomes depleted; illness, disease, and even death may occur

stage of resistance

second stage of the general adaptation syndrome; the body adapts to a stressor for a period of time

stress

process whereby an individual perceives and responds to events that one appraises as overwhelming or threatening to one's well-being

stressors

environmental events that may be judged as threatening or demanding; stimuli that initiate the stress process

Type A

psychological and behavior pattern exhibited by individuals who tend to be extremely competitive, impatient, rushed, and hostile toward others

Type B

psychological and behavior pattern exhibited by a person who is relaxed and laid back