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SCHOOL OF SCIENCE AND HUMANITIES

DEPARTMENT OF PSYCHOLOGY

UNIT – I – Stress Management – SPSY1604

Introduction

Science of Stress (Mechanisms)

As soon as the individual recognizes a harmful or threatening situation immediately the stress response starts. The sympathetic nervous system (the thoughtful sensory system), which generates power to the body for a battle or flight reaction activates by the appraisal of negative emotions. Noradrenaline and adrenaline are immediately released by sympathetic nervous system, causing heart and respiratory rates to increase, and blood pressure to rise. Huge amounts of adrenaline will stimulate hypothalamic-pituitary-adrenal axis pivot, which in turn liberates cortisol and glucocorticoids to direct body assets to support stress reactions.

Alterations that can occur to body resources include: the immune system, such as elevated lymphocytes; the metabolism, such as elevated blood glucose levels; and the cardiovascular system, as in expanded heart rate and pulse. However, these aforementioned chemicals when presented in an excessive amount can harm the body but beneficial in helping the body cope with short-term stress (Aldwin & Yancura, 2010). For example, diabetes caused by elevated blood glucose and cholesterol can lead to cardiovascular diseases. Thus, the actual cause of chronic illnesses is caused by chronic stress rather than life events peruse.

Sources of stress

There are four major sources of stress:

- ❖ Finance: Money
- ❖ Job
- ❖ Family responsibilities & relationship
- ❖ Health related aspects

1. Finance: Signs of financial stress may include

- ❖ Arguing with loved ones about money
- ❖ Being afraid to open mail or answer the phone
- ❖ Feeling guilty about spending money on non-essentials
- ❖ Worrying and feeling anxious about money

In the long-term, stress related to finances results in distress, which may bring up blood pressure and cause headaches, upset stomach, chest pain, insomnia, and a general feeling of sickness. Financial stress has also been linked to a number of health problems, including depression, anxiety, skin problems, diabetes, and arthritis.

2. Work (job stress)

According to the Centers for Disease Control and Prevention (CDC), Americans now spend 8% more time at work compared to 20 years ago, and about 13% of people work a second job. At least 40% report their jobs are stressful, and 26% report they often feel burned out by their work.

Any number of things can contribute to job stress, including too much work, job insecurity, dissatisfaction with a job or career, and conflicts with a boss and/or co-worker.

Whether you are worried about a specific project or feeling unfairly treated, putting your job ahead of everything else can affect many aspects of your life, including personal relationships and mental and physical health.

Factors outside of the job itself also have a role in work stress, including a person's psychological make-up, general health, personal life and the amount of emotional support they have outside of work.

The signs of work-related stress can be physical and psychological, including:

- ❖ Anxiety
- ❖ Depression

- ❖ Difficulty concentrating or making decisions
- ❖ Fatigue
- ❖ Headache
- ❖ Heart palpitations
- ❖ Mood swings
- ❖ Muscle tension and pain
- ❖ Stomach problems

Some people may feel overwhelmed and struggle to cope, which can impact their behavior as well. Job stress may prompt people to have:

- ❖ Diminished creativity and initiative
- ❖ Disinterest
- ❖ Drops in work performance
- ❖ Increased sick days
- ❖ Isolation
- ❖ Lower levels of patience and increased levels of frustration
- ❖ Problems with personal relationships

3.Family responsibilities and Personal Relationships

Family stress is defined as disturbance in the steady state of the family system. The disturbance can emerge from the outside context (e.g., war, unemployment), from inside the family (e.g., death; divorce), or both simultaneously. In any case, the family system's equilibrium is threatened or disturbed. Family stress is therefore also defined as change in the family's equilibrium. Such change can be expected (as with the birth of a baby) or unexpected (as with winning a lottery).

While transitions and change are inherently stressful, the impact can be positive or negative. The sources of stress, whether they are volitional or unwanted, clear or ambiguous, predictable or unforeseen, all influence the outcome. And even with unexpected disasters, some families, depending on their coping strategies and resiliency, have the capacity to bend with the pressure and become stronger for it

There are people in all of our lives that cause us stress. It could be a family member, an intimate partner, friend, or co-worker. Toxic people lurk in all parts of our lives and the stress we experience from these relationships can affect physical and mental health.

There are numerous causes of stress in romantic relationships and when couples are constantly under pressure, the relationship could be on the risk of failure.

Common relationship stressors include:

- ❖ Being too busy to spend time with each other and share responsibilities
- ❖ Intimacy and sex are become rare due to busyness, health problems, and any number of other reasons
- ❖ There is abuse or control in the relationship
- ❖ You and your partner are not communicating
- ❖ You and/or partner are consuming too much alcohol and/or using drugs
- ❖ You or your partner are thinking about divorce

The signs of stress related to personal relationships are similar to normal symptoms of general stress and may include physical health and sleep problems, depression, and anxiety.

You may also find yourself avoiding or having conflict with the individual or becoming easily irritated by their presence.

Sometimes, personal relationship stress can also be related to our relationships with people on social media platforms, such as Facebook. For example, social media tends to naturally encourage comparing yourself to others, which can lead to the stress of feeling inadequate. It also makes bullying easier.

Stress and Health

Stress affects all systems of the body including the musculoskeletal, respiratory, cardiovascular, endocrine, gastrointestinal, nervous, and reproductive systems. Our bodies are well equipped to handle stress in small doses, but when that stress becomes long-term or chronic, it can have serious effects on your body.

Musculoskeletal system

When the body is stressed, muscles tense up. Muscle tension is almost a reflex reaction to stress—the body's way of guarding against injury and pain. With sudden onset stress, the muscles tense up all at once, and then release their tension when the stress passes. Chronic stress causes the muscles in the body to be in a more or less constant state of guardedness. When muscles are taut and tense for long periods of time, this may trigger other reactions of the body and even promote stress-related disorders. For example, both tension-type headache and

migraine headache are associated with chronic muscle tension in the area of the shoulders, neck and head. Musculoskeletal pain in the low back and upper extremities has also been linked to stress, especially job stress.

Respiratory system

Stress and strong emotions can present with respiratory symptoms, such as shortness of breath and rapid breathing, as the airway between the nose and the lungs constricts. For people without respiratory disease, this is generally not a problem as the body can manage the additional work to breathe comfortably, but psychological stressors can exacerbate breathing problems for people with pre-existing respiratory diseases such as asthma and chronic obstructive pulmonary disease (COPD; includes emphysema and chronic bronchitis). Some studies show that an acute stress—such as the death of a loved one—can actually trigger asthma attacks. In addition, the rapid breathing—or hyperventilation—caused by stress can bring on a panic

Cardiovascular system

The heart and blood vessels comprise the two elements of the cardiovascular system that work together in providing nourishment and oxygen to the organs of the body. The activity of these two elements is also coordinated in the body's response to stress. Acute stress—stress that is momentary or short-term such as meeting deadlines, being stuck in traffic or suddenly slamming on the brakes to avoid an accident—causes an increase in heart rate and stronger contractions of the heart muscle, with the stress hormones—adrenaline, noradrenaline, and cortisol—acting as messengers for these effects. In addition, the blood vessels that direct blood to the large muscles and the heart dilate, thereby increasing the amount of blood pumped to these parts of the body and elevating blood pressure. This is also known as the fight or flight response. Once the acute stress episode has passed, the body returns to its normal state.

Endocrine system

When someone perceives a situation to be challenging, threatening, or uncontrollable, the brain initiates a cascade of events involving the hypothalamic-pituitary-adrenal (HPA) axis, which is the primary driver of the endocrine stress response. This ultimately results in an increase in the production of steroid hormones called glucocorticoids, which include cortisol, often referred to as the "stress hormone".

The HPA axis

During times of stress, the hypothalamus, a collection of nuclei that connects the brain and the

endocrine system, signals the pituitary gland to produce a hormone, which in turn signals the adrenal glands, located above the kidneys, to increase the production of cortisol. Cortisol increases the level of energy fuel available by mobilizing glucose and fatty acids from the liver. Cortisol is normally produced in varying levels throughout the day, typically increasing in concentration upon awakening and slowly declining throughout the day, providing a daily cycle of energy.During a stressful event, an increase in cortisol can provide the energy required to deal with prolonged or extreme challenge.
Glucocorticoids, including cortisol, are important for regulating the immune system and reducing inflammation. While this is valuable during stressful or threatening situations where injury might result in increased immune system activation, chronic stress can result in impaired communication between the immune system and the HPA axis. This impaired communication has been linked to the future development of numerous physical and mental health conditions, including chronic fatigue, metabolic disorders (e.g., diabetes, obesity), depression, and immune disorders.

Gastrointestinal system

The gut has hundreds of millions of neurons which can function fairly independently and are in constant communication with the brain—explaining the ability to feel "butterflies" in the stomach. Stress can affect this brain-gut communication, and may trigger pain, bloating, and other gut discomfort to be felt more easily. The gut is also inhabited by millions of bacteria which can influence its health and the brain's health, which can impact the ability to think and affect emotions.

Esophagus

When stressed, individuals may eat much more or much less than usual. More or different foods, or an increase in the use of alcohol or tobacco, can result in heartburn or acid reflux. Stress or exhaustion can also increase the severity of regularly occurring heartburn pain. A rare case of spasms in the esophagus can be set off by intense stress and can be easily mistaken for a heart attack.Stress also may make swallowing foods difficult or increase the amount of air that is swallowed, which increases burping, gassiness, and bloating.

Stomach

Stress may make pain, bloating, nausea, and other stomach discomfort felt more easily. Vomiting may occur if the stress is severe enough. Furthermore, stress may cause an

unnecessary increase or decrease in appetite. Unhealthy diets may in turn deteriorate one's mood.

Contrary to popular belief, stress does not increase acid production in the stomach, nor causes stomach ulcers. The latter are actually caused by a bacterial infection. When stressed, ulcers may be more bothersome.

Bowel

Stress can also make pain, bloating, or discomfort felt more easily in the bowels. It can affect how quickly food moves through the body, which can cause either diarrhea or constipation. Furthermore, stress can induce muscle spasms in the bowel, which can be painful.

Stress can affect digestion and what nutrients the intestines absorb. Gas production related to nutrient absorption may increase.

Stress especially affects people with chronic bowel disorders, such as inflammatory bowel disease or irritable bowel syndrome. This may be due to the gut nerves being more sensitive, changes in gut microbiota, changes in how quickly food moves through the gut, and/or changes in gut immune responses.

Nervous system

Chronic stress, experiencing stressors over a prolonged period of time, can result in a long-term drain on the body. As the autonomic nervous system continues to trigger physical reactions, it causes a wear-and-tear on the body. It's not so much what chronic stress does to the nervous system, but what continuous activation of the nervous system does to other bodily systems that become problematic.

Male reproductive system

Stress causes the body to release the hormone cortisol, which is produced by the adrenal glands. Cortisol is important to blood pressure regulation and the normal functioning of several body systems including cardiovascular, circulatory, and male reproduction. Excess amounts of cortisol can affect the normal biochemical functioning of the male reproductive system.

Types of stress

1.Distress(negative)

2. Eustress(positive)

Examples of **negative** personal stressors include:

- The death of a spouse.
- Filing for divorce.
- Losing contact with loved ones.
- The death of a family member.
- Hospitalization (oneself or a family member).
- Injury or illness (oneself or a family member).
- Being abused or neglected.
- Separation from a spouse or committed relationship partner.
- Conflict in interpersonal relationships.
- Bankruptcy/Money Problems.
- Unemployment.
- Sleep problems.
- Children's problems at school.
- Legal problems.

Examples of **positive** personal stressors include:

- Receiving a promotion or raise at work.
- Starting a new job.
- Marriage.
- Buying a home.
- Having a child.
- Moving.
- Taking a vacation.
- Holiday seasons.

- Retiring.
- Taking educational classes or learning a new hobby.

Eustress, or positive stress, has the following characteristics:

- ❖ Motivates, focuses energy.
- ❖ Is short-term.
- ❖ Is perceived as within our coping abilities.
- ❖ Feels exciting.
- ❖ Improves performance.

In contrast, Distress, or negative stress, has the following characteristics:

- ❖ Causes anxiety or concern.
- ❖ Can be short- or long-term.
- ❖ Is perceived as outside of our coping abilities.
- ❖ Feels unpleasant.
- ❖ Decreases performance.
- ❖ Can lead to mental and physical problems.

Concept of stress:

Claude Bernard (1865/1961) noted that the maintenance of life is critically dependent on keeping our internal milieu constant in the face of a changing environment. Cannon (1929) called this "homeostasis." Selye (1956) used the term "stress" to represent the effects of anything that seriously threatens homeostasis. The actual or perceived threat to an organism is referred to as the "stressor" and the response to the stressor is called the "stress response." Although stress responses evolved as adaptive processes, Selye observed that severe, prolonged stress responses might lead to tissue damage and disease. Based on the appraisal of perceived threat, humans and other animals invoke coping responses (Lazarus & Folkman 1984).

Stress is normally defined as "a mental occurrence caused by demand and failure, is very familiar in our lives; it appears to result from an individual's assessment that environmental demand exceeds his or her resources and thus endangers the person's wellbeing". It is however

hard to define stress since every individual's reaction to stress is different. A situation stressful for one person may not be perceived as such by another. Response to stress affects the mind, body and behavior of a person. "It may hinder normal development of the personality and performance of a person. Stress may further cause negative emotions, such as depression and anxiety, if not properly controlled".

A certain amount of stress is needed for all people to perform efficiently. Neither an overabundance of or too minimal stress is useful nor fruitful. Appropriate stress level tunes up the brain and enhances performance and wellbeing. Favorable amount of stress is needed to rush individuals to the level of ideal readiness. It also enhances subjective and behavioral performance. However excessive amount of stress can lead to depression, boredom, poor health and anxiety.

Definitions of Stress

The term stress derived from the Latin words strictest, which implies tight, or slender, and stringer and it was generally used to mean hardships, strain, difficulty, or burden.

"Stress involved in an environmental situation that perceived as presenting needs which threatens to exceed the person's capabilities and resources for meeting it, under conditions where the person expects a substantial differential in the rewards and costs from meeting the need versus not meeting it" (McGrath, 1976).

"When people are faced with needs from others or needs from the physical or psychosocial environment to which they feel unable to adequately respond, a reaction of the organism is activated to cope with the situation. The nature of this response depends upon a combination of different elements, including the extent of the needs, the personal characteristics and coping resources of the person, the constraints on the person in trying to cope and the support received from others" (Martino, Chappell, Geneva, Cole, & Grubb, 2000).

"Physically and mentally reactions of daily requests which are often linked with changes are called stress" (Richlin-Klonsky & Hoe, 2003).

"Stress is a state of mental or emotional strain or suspense and also as a number of normal reactions of the body (mental, emotional, and physiological) designed for self-preservation" (Shaikh et al., 2004).

Causes of stress:

There are any number of situations that can cause stress. Dr. Gary Brown, a licensed psychotherapist, says some of the more common stressors include:

- relationship conflicts at home
- new or increasing work responsibilities
- increasing demands
- financial strain
- loss of a loved one
- health problems
- moving to a new location
- exposure to one or more traumatic incidents, such as a car accident or a violent crime

Some of the more common physical, psychological, and emotional signs of chronic stress include:

- rapid heart rate
- elevated blood pressure
- feeling overwhelmed
- fatigue
- difficulty sleeping
- poor problem-solving
- fear that the stressor won't go away
- persistent thoughts about one or more stressors
- changes in behavior, including social withdrawal, feelings of sadness, frustration, loss of emotional control, inability to rest, and self-medication

Approaches to The Study of Stress

There are many approaches to the study of stress. Generally, researchers have conceptualized stress in three Ways. In one approach, stress is seen as a stimulus, and studies focus on the impact of stressors. Another approach treats stress as a response and examines the strains that the stressors produce (e.g. the physiological consequences). The third approach views stress as a process that involves continuous interaction and adjustment- or transaction- between the person and the environment.

Three Views of Stress: Focus on the environment, Focus on the RESPONSE: Reaction to stress: stress as a response (distress), and Focus On The Interaction Processes: Cognitive

Models of stress:

(A) The Stimulus-Based Model of Stress (Holmes and Rahes advanced this theory. It proposed that life changes (LIFE EVENTS) or (STRESSORS), either positive or negative, are stressors that tax the adaptation capacity of an individual, causing physiological and psychological strains that lead to health problems. (They developed the Social Readjustment Rating Scale (SRRS). They hypothesized that people with higher scores in the SRRS, -that is major life changes-are more likely to experience physical or mental illness. There is some supporting evidence to this, but the correlation is fairly low. Moreover, this theory was criticized as ignoring the cognitive aspects of the effects of stress. In other words, it does not account for the individual appraisal of the meaning of various life events.

(B)The Response-Based Model of Stress: This model emphasizes the common physiological consequences of stressful situation. It is represented in the well-known theory of Hans Selye. It is similar to the "Fight or Flight" response, which occurs in situation that perceived as very threatening. The response is a physiological one in which arousal of the sympathetic nervous system results in many physiological and somatic changes and finally disruption of homeostasis.

Selye developed this idea into a theoretical model of stress called the General Adaptation Syndrome theory. He defined stress as (a non-specific response and demand made upon the body). He proposed that different types of stimuli would result in similar physiological responses. The GAS theory has three phases, which is based on the hypothesis that the body has normal level of resistance to stress.

Phase (I): Initial alarm resulting in a slight reduction in the resistance to stress, (The Shock stage). Then reverts to the normal level in the (Counter-shock Stage,).

Phase (II): RESISTANCE remains high until the final stage of exhaustion, where resistance rapidly drops Phase (III): which starts with exhaustion and described as Collapse, where disease occurs.

Stage 1 Alarm Reaction

Stage 2 Resistance

Stage 3 Exhaustion

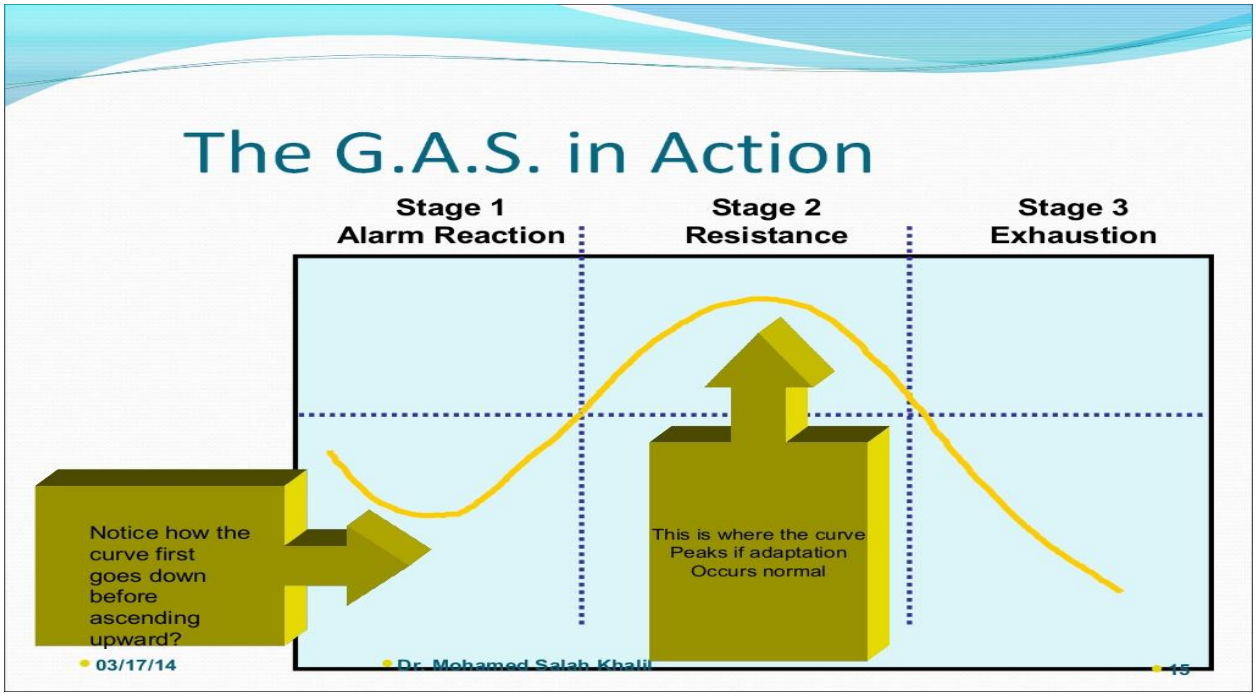

Figure 1: Notice how the curve first goes down before ascending upward? This is where the curve Peaks if adaptation Occurs normal

ALARM RESPONSE -This is the " Fight or Flight" response that prepares the body for immediate action.

RESISTANCE -Not as intense as the Alarm Stage, but bodily levels of hormonal secretion are still above normal. Occurs during the stress response and if stressor is removed helps return the body to normal levels. ADAPTATION PHASE

EXHAUSTION: Bodily systems have been depleted due to prolonged resistance. Can bring about the threat of onset of "diseases of adaptation" In chronic stress situations, sufferers enter the exhaustion phase: emotional, physical and mental resources suffer heavily, the body experiences 'adrenal exhaustion' leading to decreased stress tolerance, progressive mental and physical exhaustion, illness and collapse.

(C) TRANSACTIONAL MODEL OF STRESS

The role of appraisal

• In the 1970s, Lazarus's work on stress introduced psychology to understanding the stress response. This role for psychology took the form of his concept of appraisal.

• Lazarus argued that stress involved a transaction between the individual and their external world, and that a stress response was elicited if the individual appraised a potentially stressful event as actually being stressful.

• Lazarus's model of appraisal therefore described individuals as psychological beings who appraised the outside world, not simply passively responding to it.

- Lazarus defined two forms of appraisal: Primary and Secondary According to Lazarus, the individual initially appraises the event itself – defined as primary appraisal.
- There are four possible ways that the event can be appraised: 1. (1) Benign 2. positive; 3. (3) Harmful and a threat; 4. (4) Harmful and a challenge. . Secondary evaluating the pros and cons of their different coping strategies.
- Primary appraisal involves an appraisal of the outside world and secondary appraisal involves an appraisal of the individual themselves.
- The primary and secondary appraisals determines whether the individual shows a stress response or not.

According to Lazarus's model this stress response can take different forms:

(1) Direct action;

(2) Seeking information;

(3) Doing nothing; or

(4) Developing a means of coping with the stress in terms of relaxation or defense mechanisms

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Stressors

The various external events that pose an actual or perceived threat to the body or mind.

Life Events

A distinct subgroup of stressors that are discrete, major happenings affecting or having the potential to influence one's body, mind, family, or community- for example, a death in the family.

Chronic Stressors

A distinct subgroup of stressors (environmental events) that are ongoing and everyday issues affecting or having the potential to influence a person's body, mind, family, or community- for example, driving every day during rush hour in high traffic for school.

Effects of Stress

Psychological Effects: Stress may induce feelings of anger, fear, sadness, feelings of depression, feelings of shame and jealousy in an individual. It can also lead to disruption of growth, self-esteem, performance, increase dispersion of attention, weakness, confusion of hearing, self-hatred, weakness of the ego, loss of identity, tendency of alienation, frequent complaint of sickness, and desire in drowsiness.

Physiological Effects: Common physiological effects associated with stress are digestive upset, diarrhea, constipation, chronic respiratory disorders, high blood pressure, severe headaches, spread of skin disease, goiter, diabetes, muscle spasm, rheumatoid joint inflammation. It may also lead to eating disorders such as loss of appetite, increase eating, obesity, orientation of vomiting, nausea, attacks, stomach ulcers and high cholesterol.

Although the impact of both psychological and physiological stress have been well-known since ancient times (Dunbar, 1938; Misiak & Sexton, 1966; Plaut & Friedman, 1981; Zilboorg & Henry, 1941), only recent rapidly emergent literatures on stress and health have made evident the complete significance of these early observations. Stress is likely to be present, when problems are not easily resolved.

The Health Belief Model

The **health belief model** (**HBM**) is a psychological health behavior change model developed to explain and predict health-related behaviors, particularly in regard to the uptake of health services. The health belief model was developed in the 1950s by social psychologists at the U.S. Public Health Service and remains one of the best known and most widely used theories in health behavior research.

The health belief model suggests that people's beliefs about health problems, perceived benefits of action and barriers to action, and self-efficacy explain engagement (or lack of engagement) in health-promoting behavior. A stimulus, or cue to action, must also be present in order to trigger the health-promoting behavior.

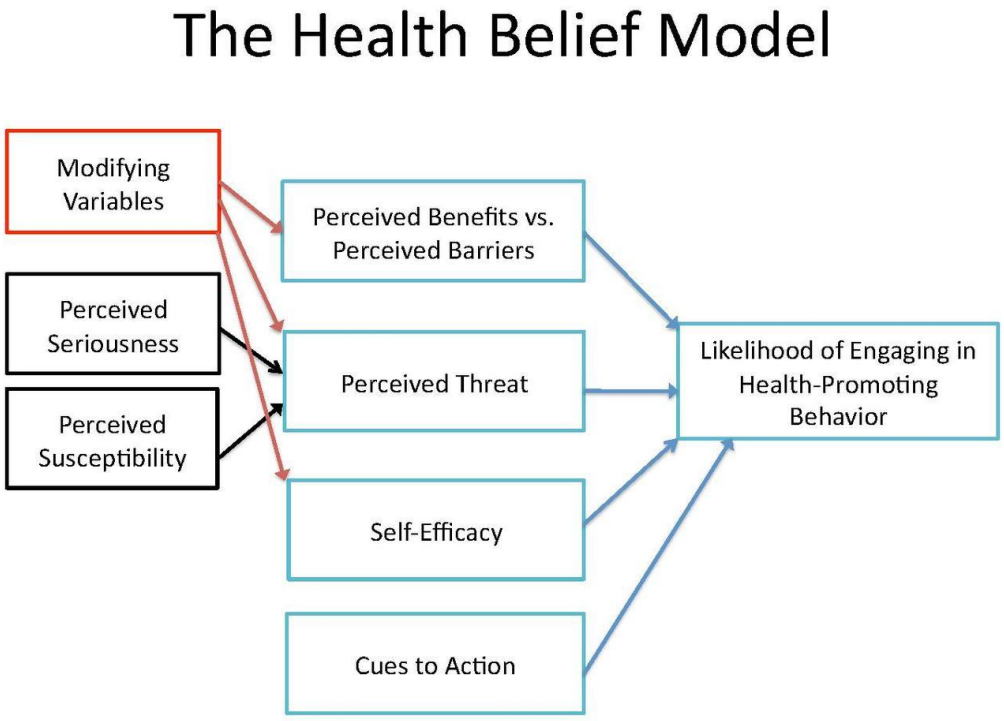

Figure 2: The health belief model

History

One of the first theories of health behavior, the health belief model was developed in the 1950s by social psychologists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and

Howard Leventhal at the U.S. Public Health Service to better understand the widespread failure of screening programs for tuberculosis. The health belief model has been applied to predict a wide variety of health-related behaviors such as being screened for the early detection of asymptomatic diseases and receiving immunizations. More recently, the model has been applied to understand patients' responses to symptoms of disease,[2] compliance with medical regimens, lifestyle behaviors (e.g., sexual risk behaviors), and behaviors related to chronic illnesses, which may require long-term behavior maintenance in addition to initial behavior change.

Amendments to the model were made as late as 1988 to incorporate emerging evidence within the field of psychology about the role of self-efficacy in decision-making and behavior.

Theoretical Constructs

The following constructs of the health belief model are proposed to vary between individuals and predict engagement in health-related behaviors (e.g., getting vaccinated, getting screened for asymptomatic diseases, exercising).

(base score for smoking behavior)

Perceived Severity

Perceived severity refers to the subjective assessment of the severity of a health problem and its potential consequences. The health belief model proposes that individuals who perceive a given health problem as serious are more likely to engage in behaviors to prevent the health problem from occurring (or reduce its severity). Perceived seriousness encompasses beliefs about the disease itself (e.g., whether it is life-threatening or may cause disability or pain) as well as broader impacts of the disease on functioning in work and social roles. For instance, an individual may perceive that influenza is not medically serious, but if he or she perceives that there would be serious financial consequences as a result of being absent from work for several days, then he or she may perceive influenza to be a particularly serious condition.

Perceived Susceptibility

Perceived susceptibility refers to subjective assessment of risk of developing a health problem. The health belief model predicts that individuals who perceive that they are susceptible to a particular health problem will engage in behaviors to reduce their risk of developing the health problem. Individuals with low perceived susceptibility may deny that they are at risk for

contracting a particular illness. Others may acknowledge the possibility that they could develop the illness, but believe it is unlikely. Individuals who believe they are at low risk of developing an illness are more likely to engage in unhealthy, or risky, behaviors. Individuals who perceive a high risk that they will be personally affected by a particular health problem are more likely to engage in behaviors to decrease their risk of developing the condition.

The combination of perceived severity and perceived susceptibility is referred to as perceived threat. Perceived severity and perceived susceptibility to a given health condition depend on knowledge about the condition. The health belief model predicts that higher perceived threat leads to higher likelihood of engagement in health-promoting behaviors.

Perceived Benefits

Health-related behaviors are also influenced by the perceived benefits of taking action. Perceived benefits refer to an individual's assessment of the value or efficacy of engaging in a health-promoting behavior to decrease risk of disease. If an individual believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then he or she is likely to engage in that behavior regardless of objective facts regarding the effectiveness of the action. For example, individuals who believe that wearing sunscreen prevents skin cancer are more likely to wear sunscreen than individuals who believe that wearing sunscreen will not prevent the occurrence of skin cancer.

Perceived Barriers

Health-related behaviors are also a function of perceived barriers to taking action. Perceived barriers refer to an individual's assessment of the obstacles to behavior change. Even if an individual perceives a health condition as threatening and believes that a particular action will effectively reduce the threat, barriers may prevent engagement in the health-promoting behavior. In other words, the perceived benefits must outweigh the perceived barriers in order for behavior change to occur. Perceived barriers to taking action include the perceived inconvenience, expense, danger (e.g., side effects of a medical procedure) and discomfort (e.g., pain, emotional upset) involved in engaging in the behavior. For instance, lack of access to affordable health care and the perception that a flu vaccine shot will cause significant pain may act as barriers to receiving the flu vaccine.

Modifying Variables

Individual characteristics, including demographic, psychosocial, and structural variables, can affect perceptions (i.e., perceived seriousness, susceptibility, benefits, and barriers) of health-related behaviors. Demographic variables include age, sex, race, ethnicity, and education, among others. Psychosocial variables include personality, social class, and peer and reference group pressure, among others. Structural variables include knowledge about a given disease and prior contact with the disease, among other factors. The health belief model suggests that modifying variables affect health-related behaviors indirectly by affecting perceived seriousness, susceptibility, benefits, and barriers.

Cues to Action

The health belief model posits that a cue, or trigger, is necessary for prompting engagement in health-promoting behaviors. Cues to action can be internal or external. Physiological cues (e.g., pain, symptoms) are an example of internal cues to action. External cues include events or information from close others, the media, or health care providers promoting engagement in health-related behaviors. Examples of cues to action include a reminder postcard from a dentist, the illness of a friend or family member, and product health warning labels. The intensity of cues needed to prompt action varies between individuals by perceived susceptibility, seriousness, benefits, and barriers. For example, individuals who believe they are at high risk for a serious illness and who have an established relationship with a primary care doctor may be easily persuaded to get screened for the illness after seeing a public service announcement, whereas individuals who believe they are at low risk for the same illness and also do not have reliable access to health care may require more intense external cues in order to get screened.

Self-Efficacy

Self-efficacy was added to the four components of the health belief model (i.e., perceived susceptibility, seriousness, benefits, and barriers) in 1988. Self-efficacy refers to an individual's perception of his or her competence to successfully perform a behavior. Self-efficacy was added to the health belief model in an attempt to better explain individual differences in health behaviors. The model was originally developed in order to explain engagement in one-time health-related behaviors such as being screened for cancer or receiving an immunization. Eventually, the health belief model was applied to more substantial, long-term behavior change such as diet modification, exercise, and smoking. Developers of the model recognized that

confidence in one's ability to effect change in outcomes (i.e., self-efficacy) was a key component of health behavior change.

Empirical Support

The health belief model has gained substantial empirical support since its development in the 1950s. It remains one of the most widely used and well-tested models for explaining and predicting health-related behavior. A 1984 review of 18 prospective and 28 retrospective studies suggests that the evidence for each component of the health belief model is strong. The review reports that empirical support for the health belief model is particularly notable given the diverse populations, health conditions, and health-related behaviors examined and the various study designs and assessment strategies used to evaluate the model. A more recent meta-analysis found strong support for perceived benefits and perceived barriers predicting health-related behaviors, but weak evidence for the predictive power of perceived seriousness and perceived susceptibility. The authors of the meta-analysis suggest that examination of potential moderated and mediated relationships between components of the model is warranted.

Applications

The health belief model has been used to develop effective interventions to change health-related behaviors by targeting various aspects of the model's key constructs. Interventions based on the health belief model may aim to increase perceived susceptibility to and perceived seriousness of a health condition by providing education about prevalence and incidence of disease, individualized estimates of risk, and information about the consequences of disease (e.g., medical, financial, and social consequences). Interventions may also aim to alter the cost-benefit analysis of engaging in a health-promoting behavior (i.e., increasing perceived benefits and decreasing perceived barriers) by providing information about the efficacy of various behaviors to reduce risk of disease, identifying common perceived barriers, providing incentives to engage in health-promoting behaviors, and engaging social support or other resources to encourage health-promoting behaviors. Furthermore, interventions based on the health belief model may provide cues to action to remind and encourage individuals to engage in health-promoting behaviors. Interventions may also aim to boost self-efficacy by providing training in specific health-promoting behaviors, particularly for complex lifestyle changes (e.g., changing diet or physical activity, adhering to a complicated medication regimen). Interventions can be aimed at the individual level (i.e., working one-on-one with individuals to increase engagement

in health-related behaviors) or the societal level (e.g., through legislation, changes to the physical environment).

Limitations

The health belief model attempts to predict health-related behaviors by accounting for individual differences in beliefs and attitudes. However, it does not account for other factors that influence health behaviors. For instance, habitual health-related behaviors (e.g., smoking, seatbelt buckling) may become relatively independent of conscious health-related decision making processes. Additionally, individuals engage in some health-related behaviors for reasons unrelated to health (e.g., exercising for aesthetic reasons). Environmental factors outside an individual's control may prevent engagement in desired behaviors. For example, an individual living in a dangerous neighborhood may be unable to go for a jog outdoors due to safety concerns. Furthermore, the health belief model does not consider the impact of emotions on health-related behavior. Evidence suggests that fear may be a key factor in predicting health-related behavior.

The theoretical constructs that constitute the health belief model are broadly defined. Furthermore, the health belief model does not specify how constructs of the model interact with one another. Therefore, different operationalizations of the theoretical constructs may not be strictly comparable across studies.

Research assessing the contribution of cues to action in predicting health-related behaviors is limited. Cues to action are often difficult to assess, limiting research in this area. For instance, individuals may not accurately report cues that prompted behavior change. Cues such as a public service announcement on television or on a billboard may be fleeting and individuals may not be aware of their significance in prompting them to engage in a health-related behavior. Interpersonal influences are also particularly difficult to measure as cues.

UNIT – III – Stress Management – SPSY1604

Relaxation is the emotional state of a living being, of low tension, in which there is an absence of arousal that could come from sources such as anger, anxiety, or fear. According to the Oxford dictionary relaxation is when the body and mind are free from tension and anxiety. Relaxation is a form of mild ecstasy coming from the frontal lobe of the brain in which the backward cortex sends signals to the frontal cortex via a mild sedative. Relaxation can be achieved through meditation, autogenic, and progressive muscle relaxation. Relaxation helps improve coping with stress. When we are stressed, the sympathetic nervous system is activated because we are in a fight-or-flight response mode; over time, this could have negative effects on a human body.

What is the Relaxation Response?

When stress overwhelms your nervous system your body is flooded with chemicals that prepare you for “fight or flight.” While the stress response can be lifesaving in emergency situations where you need to act quickly, it wears your body down when constantly activated by the stresses of everyday life.

No one can avoid all stress, but you can counteract it by learning how to produce the relaxation response, a state of deep rest that is the polar opposite of the stress response. The relaxation response puts the brakes on stress and brings your body and mind back into a state of equilibrium. The goal is to be both physically relaxed and mentally alert at the same time.

When the relaxation response is activated:

- Your heart rate slows down
- Breathing becomes slower and deeper
- Blood pressure drops or stabilizes
- Your muscles relax

- Blood flow to the brain increases

In addition to its calming physical effects, the relaxation response also increases energy and focus, combats illness, relieves aches and pains, heightens problem-solving abilities, and boosts motivation and productivity. Best of all, anyone can reap these benefits with regular practice.

Passive relaxing does not produce the relaxation response

The relaxation response is a mentally active process best done when you're awake, and strengthened by practice. Simply laying on the couch, reading, or watching TV—while possibly relaxing—aren't going to produce the physical and psychological benefits of the relaxation response.

For that, you'll need to practice a relaxation technique. Those whose stress-busting benefits have been widely studied include deep breathing, progressive muscle relaxation, meditation, visualization, rhythmic exercise, yoga, and tai chi.

Sleep

Sleep is a behavioral state that is a natural part of every individual's life. We spend about one-third of our lives asleep. Nonetheless, people generally know little about the importance of this essential activity. Sleep is not just something to fill time when a person is inactive. Sleep is a required activity, not an option. Even though the precise functions of sleep remain a mystery, sleep is important for normal motor and cognitive function. We all recognize and feel the need to sleep. After sleeping, we recognize changes that have occurred, as we feel rested and more alert.

Sleep is not a passive event, but rather an active process involving characteristic physiological changes in the organs of the body. Scientists study sleep by measuring the electrical changes in the brain using **electroencephalograms (EEGs)**.

Typically, electrodes are placed on the scalp in a symmetrical pattern. The electrodes measure very small voltages that scientists think are caused by synchronized activity in very large numbers of synapses (nerve connections) in the brain's outer layers (cerebral cortex). EEG data

are represented by curves that are classified according to their frequencies. The wavy lines of the EEG are called brain waves.

An **electrooculogram (EOG)** uses electrodes on the skin near the eye to measure changes in voltage as the eye rotates in its socket. Scientists also measure the electrical activity associated with active muscles by using **electromyograms (EMGs)**.

In this technique, electrodes are placed on the skin overlaying a muscle. In humans, the electrodes are placed under the chin because muscles in this area demonstrate very dramatic changes during the various stages of sleep.

In practice, EEGs, EOGs, and EMGs are recorded simultaneously on continuously moving chart paper or digitized by a computer and displayed on a high-resolution monitor. This allows the relationships among the three measurements to be seen immediately. The patterns of activity in these three systems provide the basis for classifying the different types of sleep.

States of Sleep

Studying these events has led to the identification of two basic stages, or states, of sleep: non rapid eye movement (**NREM**) and rapid eye movement (**REM**).

Sleep is a highly organized sequence of events that follows a regular, cyclic program each night. Thus, the EEG, EMG, and EOG patterns change in predictable ways several times during a single sleep period. NREM sleep is divided into four stages according to the **amplitude** and **frequency** of brain wave activity. In general, the EEG pattern of NREM sleep is slower, often more regular, and usually of higher voltage than that of wakefulness. As sleep gets deeper, the brain waves get slower and have greater amplitude. NREM Stage 1 is very light sleep; NREM Stage 2 has special brain waves called **sleep spindles** and **K complexes**; NREM Stages 3 and 4 show increasingly more high-voltage slow waves. In NREM Stage 4, it is extremely hard to be awakened by external stimuli. The muscle activity of NREM sleep is low, but the muscles retain their ability to function. Eye movements normally do not occur during NREM sleep, except for very slow eye movements, usually at the beginning. The body's general physiology during these stages is fairly similar to the wake state.

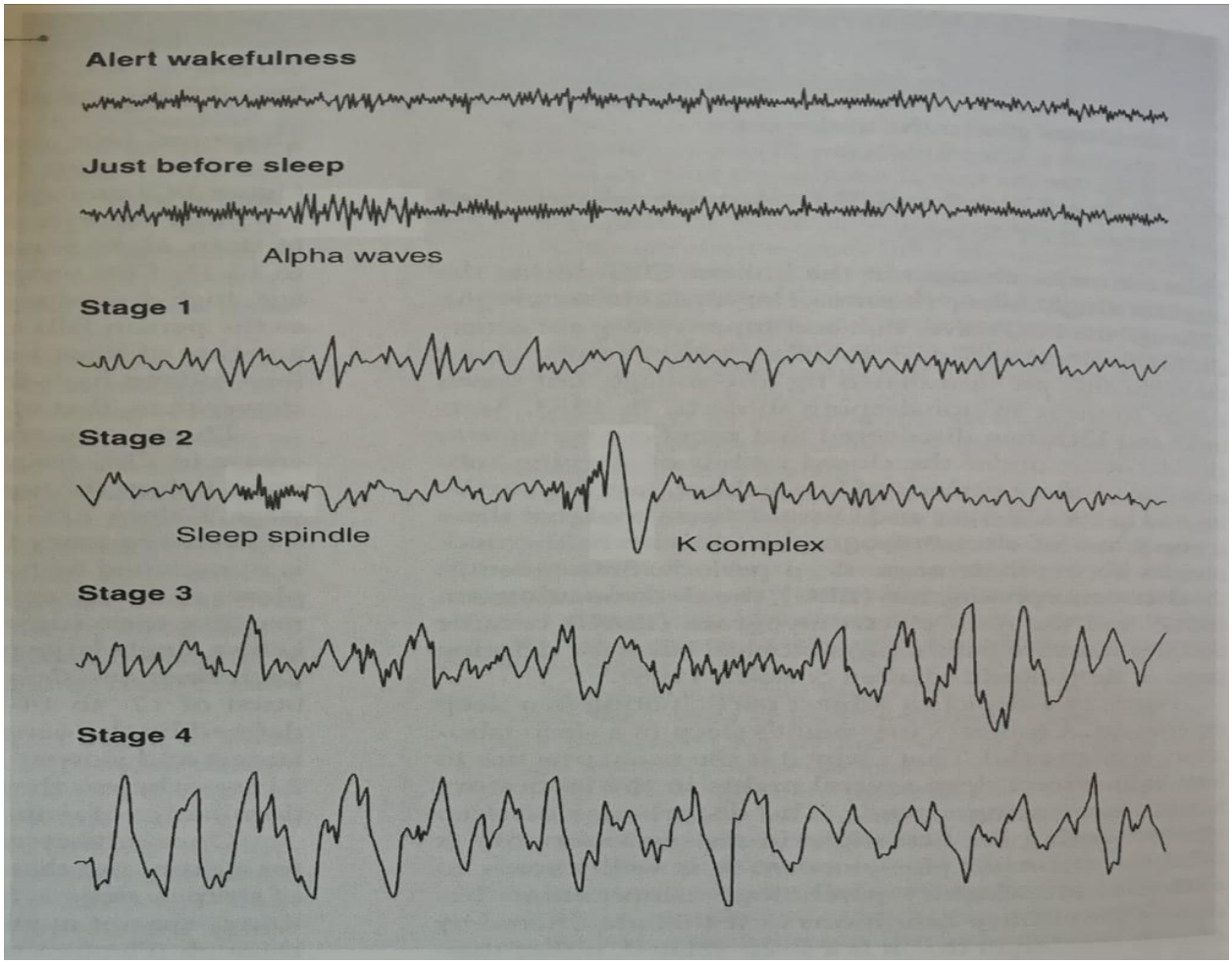

Figure 3: Stages of Sleep

The EEG recorded during REM sleep shows very fast and desynchronized activity that is more random than that recorded during NREM sleep. It actually looks similar to the EEG (low voltage with a faster mix of frequencies) from when we are awake. REM sleep is characterized by bursts of rapid eye movements. The eyes are not constantly moving, but they dart back and forth or up and down. They also stop for a while and then jerk back and forth again. Always, and just like waking eye movements, both eyes move together in the same direction. Some scientists believe that the eye movements of REM sleep relate to the visual images of dreams, but why they exist and what function they serve, if any, remain unknown. Additionally, while muscle tone is normal in NREM sleep, we are almost completely paralyzed in REM sleep. Although the muscles that move our bodies go limp, other important muscles continue to function in REM sleep. These include the heart, diaphragm, eye muscles, and smooth muscles such as those of the intestines and blood vessels. The paralysis of muscles in the arms and legs and under the

chin show electrical silence in REM sleep. On an EMG, the recording produces a flat line. Small twitches can break through this paralysis and look like tiny blips on the flat line.

Sleep is a cyclical process. During sleep, people experience repeated cycles of NREM and REM sleep, beginning with an NREM phase. This cycle lasts approximately 90 to 110 minutes and is repeated four to six times per night. As the night progresses, however, the amount of deep NREM sleep decreases and the amount of REM sleep increases.

Sleep Related Disorders

Sleep disorders are a group of conditions that affect the ability to sleep well on a regular basis. Whether they are caused by a health problem or by too much stress, sleep disorders are becoming increasingly common in our lives. Most people occasionally experience sleeping problems due to stress, hectic schedules, and other outside influences. However, when these issues begin to occur on a regular basis and interfere with daily life, they may indicate a sleeping disorder.

Depending on the type of sleep disorder, people may have a difficult time falling asleep and may feel extremely tired throughout the day. The lack of sleep can have a negative impact on energy, mood, concentration, and overall health. In some cases, sleep disorders can be a symptom of another medical or mental health condition. These sleeping problems may eventually go away once treatment is obtained for the underlying cause.

When sleep disorders aren’t caused by another condition, treatment normally involves a combination of medical treatments and lifestyle changes. It’s important to receive a diagnosis and treatment right away if you suspect you might have a sleep disorder. When left untreated, the negative effects of sleep disorders can lead to further health consequences. They can also affect your performance at work, cause strain in relationships, and impair your ability to perform daily activities.

What are the different types of sleep disorders?

There are many different types of sleep disorders. Some may be caused by other underlying health conditions.

Insomnia

Insomnia refers to the inability to fall asleep or to remain asleep. It can be caused by jet lag, stress and anxiety, hormones, or digestive problems. It may also be a symptom of another condition.

Insomnia can be problematic for your overall health and quality of life, potentially causing:

- depression
- difficulty concentrating
- irritability
- weight gain
- impaired work or school performance

Unfortunately, insomnia is extremely common. Up to 50 percent of American adults experience it at some point in their lives.

The disorder is most prevalent among older adults and women.

Insomnia is usually classified as one of three types:

- chronic, when insomnia happens on a regular basis for at least 1 month
- intermittent, when insomnia occurs periodically
- transient, when insomnia lasts for just a few nights at a time

Sleep apnea

Sleep apnea is characterized by pauses in breathing during sleep. This is a serious medical condition that causes the body to take in less oxygen. It can also cause you to wake up during the night.

There are two types:

- obstructive sleep apnea, where the flow of air stops because airway space is obstructed or too narrow, and
- central sleep apnea, where there is a problem in the connection between the brain and the muscles that control your breath.

Parasomnias

Parasomnias are a class of sleep disorders that cause abnormal movements and behaviors during sleep. They include:

- sleepwalking
- sleep talking
- groaning
- nightmares
- bedwetting
- teeth grinding or jaw clenching

Restless leg syndrome

Restless leg syndrome (RLS) is an overwhelming need to move the legs. This urge is sometimes accompanied by a tingling sensation in the legs. While these symptoms can occur during the day, they are most prevalent at night.

RLS is often associated with certain health conditions, including attention deficit hyperactivity disorder (ADHD) and Parkinson's disease, but the exact cause isn't always known.

Narcolepsy

Narcolepsy is characterized by “sleep attacks” that occur while awake. This means that you will suddenly feel extremely tired and fall asleep without warning.

The disorder can also cause sleep paralysis, which may make you physically unable to move right after waking up. Although narcolepsy may occur on its own, it is also associated with certain neurological disorders, such as multiple sclerosis.

What are the symptoms of sleep disorders?

Symptoms differ depending on the severity and type of sleeping disorder. They may also vary when sleep disorders are a result of another condition.

However, general symptoms of sleep disorders include:

- difficulty falling or staying asleep
- daytime fatigue
- strong urge to take naps during the day
- unusual breathing patterns
- unusual or unpleasant urges to move while falling asleep
- unusual movement or other experiences while asleep
- unintentional changes to your sleep/wake schedule
- irritability or anxiety
- impaired performance at work or school
- lack of concentration
- depression

- weight gain

What causes sleep disorders?

There are many conditions, diseases, and disorders that can cause sleep disturbances. In many cases, sleep disorders develop as a result of an underlying health problem.

Allergies and respiratory problems

Allergies, colds, and upper respiratory infections can make it challenging to breathe at night. The inability to breathe through your nose can also cause sleeping difficulties.

Frequent urination

Nocturia, or frequent urination, may disrupt your sleep by causing you to wake up during the night. Hormonal imbalances and diseases of the urinary tract may contribute to the development of this condition.

Be sure to call your doctor right away if frequent urination is accompanied by bleeding or pain.

Chronic pain

Constant pain can make it difficult to fall asleep. It might even wake you up after you fall asleep. Some of the most common causes of chronic pain include:

- arthritis
- chronic fatigue syndrome
- fibromyalgia
- inflammatory bowel disease
- persistent headaches
- continuous lower back pain

In some cases, chronic pain may even be exacerbated by sleep disorders. For instance, doctors believe the development of fibromyalgia might be linked to sleeping problems.

Stress and anxiety

Stress and anxiety often have a negative impact on sleep quality. It can be difficult for you to fall asleep or to stay asleep. Nightmares, sleep talking, or sleepwalking may also disrupt your sleep.

How are sleep disorders diagnosed?

Your doctor will first perform a physical exam and gather information about your symptoms and medical history. They may also order various tests, including:

- **Polysomnography (PSG):** This is a lab sleep study that evaluates oxygen levels, body movements, and brain waves to determine how they disrupt sleep vs. home sleep study (HST) that is performed in your own and is used to diagnose sleep apnea.

- **Electroencephalogram (EEG):** This is a test that assesses electrical activity in the brain and detects any potential problems associated with this activity. It's part of a polysomnography.

- **Multiple sleep latency test (MSLT):** This daytime napping study is used in conjunction with a PSG at night to help diagnose narcolepsy.

These tests can be crucial in determining the right course of treatment for sleep disorders.

How are sleep disorders treated?

Treatment for sleep disorders can vary depending on the type and underlying cause. However, it generally includes a combination of medical treatments and lifestyle changes.

Medical treatments

Medical treatment for sleep disturbances might include any of the following:

- sleeping pills
- melatonin supplements
- allergy or cold medication
- medications for any underlying health issues
- breathing device or surgery (usually for sleep apnea)
- a dental guard (usually for teeth grinding)

Lifestyle changes

Lifestyle adjustments can greatly improve your quality of sleep, especially when they're done along with medical treatments. You may want to consider:

- incorporating more vegetables and fish into your diet, and reducing sugar intake
- reducing stress and anxiety by exercising and stretching
- creating and sticking to a regular sleeping schedule
- drinking less water before bedtime
- limiting your caffeine intake, especially in the late afternoon or evening
- decreasing tobacco and alcohol use
- eating smaller low carbohydrate meals before bedtime
- maintaining a healthy weight based on your doctor's recommendations

Going to bed and waking up at the same time every day can also significantly improve your sleep quality. While you might be tempted to sleep in on the weekends, this can make it more difficult to wake up and fall asleep during the workweek.

What is the outlook for someone with a sleep disorder?

The effects of sleep disorders can be so disruptive that you will likely want immediate relief. Unfortunately, long-term cases can take a bit more time to resolve. However, if you stick with your treatment plan and regularly communicate with your doctor, you can find your way to better sleep.

Finding the Right Relaxation Technique for You

There is no single relaxation technique that is best for everyone. When choosing a relaxation technique, consider your specific needs, preferences, fitness, and the way you tend to react to stress. The right relaxation technique is the one that resonates with you and fits your lifestyle. If and is able to focus your mind and interrupt your everyday thoughts in order to elicit the relaxation response. In many cases, you may find that alternating or combining different techniques will keep you motivated and provide you with the best results.

How you react to stress may influence the relaxation technique that works best for you:

The "fight" response. If you tend to become angry, agitated, or keyed up under stress, you will respond best to stress relief activities that quiet you down, such as meditation, progressive muscle relaxation, deep breathing, or guided imagery.

The "flight" response. If you tend to become depressed, withdrawn, or spaced out under stress, you will respond best to stress relief activities that are stimulating and energize your nervous system, such as rhythmic exercise, massage, mindfulness, or power yoga.

The immobilization response. If you've experienced some type of trauma and tend to "freeze" or become "stuck" under stress, your challenge is to first rouse your nervous system to a fight or flight response (above) so you can employ the applicable stress relief techniques. To do this, choose physical activity that engages both your arms and legs, such as running, dancing, or tai chi, and perform it mindfully, focusing on the sensations in your limbs as you move.

Do you need alone time or social stimulation?If you crave solitude, solo relaxation techniques such as meditation or progressive muscle relaxation will give you the to quiet your mind and recharge your batteries. If you crave social interaction, a class setting will give you the

stimulation and support you're looking for. Practicing with others may also help you stay motivated.

Starting a Regular Relaxation Practice

Learning the basics of these relaxation techniques isn't difficult. But it takes practice to truly harness their stress-relieving power: daily practice, in fact. Most stress experts recommend setting aside at least 10 to 20 minutes a day for your relaxation practice. If you'd like to maximize the benefits, aim for 30 minutes to an hour.

Tips for making relaxation techniques part of your life

- **Set aside time in your daily schedule.** If possible, schedule a set time either once or twice a day for your practice. You may find that it's easier to stick with your practice if you do it first thing in the morning, before other tasks and responsibilities get in the way.

- **Don't practice when you're sleepy.** These techniques are so relaxing that they can make you very sleepy. However, you will get the most benefit if you practice when you're fully awake and alert. Avoid practicing close to bedtime, after a heavy meal, or when you've been drinking.

- **Expect ups and downs.** Don't be discouraged if you skip a few days or even a few weeks. It happens. Just get started again and slowly build up to your old momentum.

- **If you exercise, improve the relaxation benefits by adopting mindfulness.** Instead of zoning out or staring at a TV as you exercise, try focusing your attention on your body. If you're resistance training, for example, focus on coordinating your breathing with your movements and pay attention to how your body feels as you raise and lower the weights.

Don't think you have time for a daily practice? If you feel like your schedule is already too packed for anything else, remember that many relaxation techniques can be practiced while you're doing other things. Meditate while commuting to work on a bus or train, for example, or waiting for an appointment. Try deep breathing during your break at work or when you're winding down for bed. Take a yoga or tai chi break in your office or in the park at lunchtime.

Practice mindful walking while exercising your dog, walking to your car, or taking a neighborhood stroll.

Deep Breathing

With its focus on full, cleansing breaths, deep breathing is a simple yet powerful relaxation technique. It's easy to learn, can be practiced almost anywhere, and provides a quick way to get your stress levels in check. Deep breathing is the cornerstone of many other relaxation practices, too, and can be combined with other relaxing elements such as aromatherapy and music. All you really need is a few minutes and a place to stretch out.

The key to deep breathing is to breathe deeply from the abdomen, getting as much fresh air as possible in your lungs. When you take deep breaths from the abdomen, rather than shallow breaths from your upper chest, you inhale more oxygen. The more oxygen you get, the less tense, short of breath, and anxious you feel.

Steps for Practicing Deep Breathing

- Sit comfortably with your back straight. Put one hand on your chest and the other on your stomach.

- Breathe in through your nose. The hand on your stomach should rise. The hand on your chest should move very little.

- Exhale through your mouth, pushing out as much air as you can while contracting your abdominal muscles. The hand on your stomach should move in as you exhale, but your other hand should move very little.

- Continue to breathe in through your nose and out through your mouth. Try to inhale enough so that your lower abdomen rises and falls. Count slowly as you exhale.

If you find it difficult breathing from your abdomen while sitting up, try lying on the floor. Put a small book on your stomach and try to breathe so that the book rises as you inhale and falls as you exhale. Breathing techniques can be practiced almost anywhere and can be combined with

other relaxation exercises, such as aromatherapy and music. All you really need is a few minutes and a place to stretch out.

Progressive Muscle Relaxation

Progressive muscle relaxation is a two-step process in which you systematically tense and relax different muscle groups in the body. With regular practice, progressive muscle relaxation gives you an intimate familiarity with what tension—as well as complete relaxation—feels like in different parts of the body. This awareness helps you spot and counteract the first signs of the muscular tension that accompanies stress. And as your body relaxes, so will your mind.

You can combine deep breathing with progressive muscle relaxation for an additional level of stress relief.

Practicing progressive muscle relaxation

Most progressive muscle relaxation practitioners start at the feet and work their way up to the face.

- Loosen your clothing, take off your shoes, and get comfortable.
- Take a few minutes to relax, breathing in and out in slow, deep breaths.
- When you're relaxed and ready to start, shift your attention to your right foot. Take a moment to focus on the way it feels.
- Slowly tense the muscles in your right foot, squeezing as tightly as you can. Hold for a count of 10.
- Relax your right foot. Focus on the tension flowing away and the way your foot feels as it becomes limp and loose.
- Stay in this relaxed state for a moment, breathing deeply and slowly.

- When you’re ready, shift your attention to your left foot. Follow the same sequence of muscle tension and release.

- Move slowly up through your body, contracting and relaxing the muscle groups as you go.It may take some practice at first, but try not to tense muscles other than those intended.

Before practicing progressive muscle relaxation, consult with your doctor if you have a history of muscle spasms, back problems, or other serious injuries that may be aggravated by tensing muscles.

1. Progressive muscle relaxation sequence:

2. Right foot, then left foot

3. Right calf, then left calf

4. Right thigh, then left thigh

5. Hips and buttocks Stomach

6. Chest Back

7. Right arm and hand, then left arm and hand

8. Neck and shoulders

9. Face

Yoga Asanas for Stress Relief

These 5 yoga poses will help reduce stress and anxiety

According to a research conducted by ICICI Lombard General Insurance, 74 percent of women and 80 percent of men live under stress because of overload of work and insufficient rest. Many lay awake at night due to stress. And to get relief from this stress, people are searching for newer

ways like calming teas, sound therapy and spa treatments. However, one of the best ways to beat the stress is not new, but rather an ancient practice: Yoga. Practicing yoga lowers your blood pressure and relieves symptoms of depression and anxiety. It is not only a great stress reliever but is also effective in releasing physical tension. Here is a list of yoga asanas that will help reduce stress and anxiety

1. Sukhasana (Easy pose)

Sukhasana will lengthen your spine and open your hips. It will help you calm down and eliminate anxiety. It will also reduce mental and physical exhaustion.

How to do it: Start by sitting down with your spine straight and legs extended in front of you. Now, bend your knees and bring you left foot under your right knee and your right foot under your left knee. Keep your palms on your knees. Align your head, neck and spine. Gaze ahead and pay attention to your breathing. Stay in this position for 60 seconds and then change the crossed legs.

2. Balasana (Child's pose)

Balasana is beneficial for your lymphatic system and nervous system. It will calm your mind and release stress. It stretches your thighs, hips and ankles. It relieves neck and back pain.

How to do it: Start by kneeling down and sitting on your heels. Now, bend forward till your chest touches your thighs. Let your hands rest on the side. Hold this position as long as possible and breathe deeply

3. Paschimottanasana (Seated forward bend)

Paschimottanasana will stretch your spine, hamstring and lower back. Apart from relieving stress, this pose will ease the symptoms of PMS, improves digestion, stimulated liver, reduce fatigue and relieves symptoms of menopause.

How to do it: Begin by sitting down with your feet extended forward. Now bend forward till your stomach touches your thighs. Hold your feet with your hands. Hold this position for 30 seconds and then return to the original position

4. Ananda Balasana (Happy baby pose)

Ananda Balasana will help calm you and get rid of fatigue and stress. It will gently stretch your spine and groin.

How to do it: Lie down on your back with your legs extended and arms on your side. Now, bend your knees towards your belly. Stretch your hands and hold your feet. Open your knees wide and stay in this position for 60 seconds.

5. Uttanasana (Standing forward bend)

Uttanasana will relieve mild depression and stress. It will calm your brain and stimulate your kidneys and liver. It will also strengthen your knees and stretch your hips, calves and hamstring.

How to do it: Stand straight and bend forward. Stretch your body to touch your palms to the ground. Straighten your legs for deeper stretch. Hold this position for three to four deep breaths and then return to the original position.

Biofeedback

Overview

Biofeedback is a technique you can use to learn to control your body's functions, such as your heart rate. With biofeedback, you're connected to electrical sensors that help you receive information (feedback) about your body (bio).

This feedback helps you focus on making subtle changes in your body, such as relaxing certain muscles, to achieve the results you want, such as reducing pain. In essence, biofeedback gives you the power to use your thoughts to control your body, often to improve a health condition or physical performance.

Types of biofeedback

Your therapist might use several different biofeedback methods. Determining the method that's right for you depends on your health problems and goals. Biofeedback methods include:

- **Brainwave.** This type of method uses scalp sensors to monitor your brain waves using an electroencephalograph (EEG).

- **Breathing.** During respiratory biofeedback, bands are placed around your abdomen and chest to monitor your breathing pattern and respiration rate.

- **Heart rate.** This type of biofeedback uses finger or earlobe sensors with a device called a photoplethysmograph or sensors placed on your chest, lower torso or wrists using an electrocardiograph (ECG) to measure your heart rate and heart rate variability.

- **Muscle.** This method of biofeedback involves placing sensors over your skeletal muscles with an electromyography (EMG) to monitor the electrical activity that causes muscle contraction.

- **Sweat glands.** Sensors attached around your fingers or on your palm or wrist with an electrodermograph (EDG) measure the activity of your sweat glands and the amount of perspiration on your skin, alerting you to anxiety.

- **Temperature.** Sensors attached to your fingers or feet measure your blood flow to your skin. Because your temperature often drops when you're under stress, a low reading can prompt you to begin relaxation techniques.

Biofeedback devices

You can receive biofeedback training in physical therapy clinics, medical centers and hospitals. A growing number of biofeedback devices and programs are also being marketed for home use, including:

- **Interactive computer or mobile device programs.** Some types of biofeedback devices measure physiological changes in your body, such as your heart rate activity and skin changes, by using one or more sensors attached to your fingers or your ear. The sensors plug into your computer. Using computer graphics and prompts, the devices then help you master stress by pacing your breathing, relaxing your muscles and thinking positive thoughts. Studies show that these types of devices might be effective in improving responses during moments of stress and inducing feelings of calm and well-being. Another type of biofeedback therapy

involves wearing a headband that monitors your brain activity while you meditate. It uses sounds to let you know when your mind is calm and when it's active to help you learn how to control your stress response. The information from each session can then be stored to your computer or mobile device.

- **Wearable devices.** One type of wearable device involves wearing a sensor on your waist that monitors your breathing and tracks your breathing patterns using a downloadable app. The app can alert you if you're experiencing prolonged tension, and it offers guided breathing activities to help restore your calm.

The Food and Drug Administration has approved a biofeedback device, Resperate, for reducing stress and lowering blood pressure. Resperate is a portable electronic device that promotes slow, deep breathing.

However, many biofeedback devices marketed for home use aren't regulated by the Food and Drug Administration. Before trying biofeedback therapy at home, discuss the different types of devices with your doctor to find the best fit.

Be aware that some products might be falsely marketed as biofeedback devices, and that not all biofeedback practitioners are reputable. If a manufacturer or biofeedback practitioner claims that a biofeedback device can assess your organs for disease, find impurities in your blood, cure your condition or send signals into your body, check with your doctor before using it, as it might not be legitimate.

Autogenic Training

Autogenic training (AT) is a technique that teaches your body to respond to your verbal commands. These commands "tell" your body to relax and control breathing, blood pressure, heartbeat, and body temperature. The goal of AT is to achieve deep relaxation and reduce stress. After you learn the technique, you can use it whenever you need or want relief from symptoms of stress, or you can practice it regularly to enjoy the benefits of deep relaxation and prevent the effects of chronic stress.

Autogenic training consists of six standard exercises that make the body feel warm, heavy, and relaxed. For each exercise, you get into a simple posture (sitting in a comfortable chair or reclining), concentrate without any goal, and then use visual imagination and verbal cues to relax your body in some specific way.

You learn each exercise by reading about it or watching a teacher, then practicing it for a few minutes several times a day. Learning the exercises, either from an instructor or on your own, usually moves at a slow, steady pace, taking 4 to 6 months to master all six exercises.

Without regular practice, autogenic training is not likely to have an effect. For this reason, only those people who are motivated and committed to learning it are likely to get any benefit from AT. But for those who master the technique, it works, and it can be an effective treatment for chronic stress.

The way AT works is not fully understood, but its effects on the body are measurable. Experts believe that AT works in ways that are similar to hypnosis and biofeedback. The exercises allow communication between the mind and the body, allowing you to influence body reactions that cannot normally be controlled, such as blood pressure, heartbeat, and body temperature.

What is autogenic training used for?

Most people use autogenic training (AT) to relieve the symptoms of stress. It can also be helpful with problems such as generalized anxiety, fatigue, and irritability. Some people use it to manage pain, reduce sleeping disorders such as insomnia, and increase their resistance to stress.

Also, AT has been shown to help treat:

- Hyperventilation (breathing that is deeper and more rapid than normal).

- Asthma (inflammation in the tubes that carry air to the lungs, resulting in periodic episodes of difficulty breathing as well as wheezing, chest tightness, and coughing).

- Constipation and diarrhea.

- Gastritis and stomach spasms.

- Ulcers (sores on the skin or on a mucous membrane, such as inside the mouth, stomach, or intestines).
- Racing heart and irregular heartbeat.
- High blood pressure.
- Cold hands or feet.
- Headaches.
- Thyroid problems, such as an overactive thyroid (hyperthyroidism).

Is autogenic training safe?

Autogenic training (AT) is safe for most people. Before beginning a program to learn AT, see your doctor for a physical exam and discuss what physiological effects AT might have on you. If you have a serious disease such as diabetes or a heart condition, learn and use AT only under the supervision of your doctor.

Some people have a sharp increase or decrease in their blood pressure when they do AT exercises. If you have high or low blood pressure, have your doctor or nurse check to see whether AT is bringing your blood pressure closer to normal.

If you use AT to help control any disease, including all heart and circulatory problems, do not use it to replace any conventional treatments, such as medicines.

AT is not recommended for:

- Children younger than age 5.
- People with severe mental or emotional disorders.

If you feel very anxious or restless during or after doing the exercises, stop AT or continue only under the supervision of a professional AT instructor.

Always tell your doctor if you are using an alternative therapy or if you are thinking about combining an alternative therapy with your conventional medical treatment. It may not be safe to forgo your conventional medical treatment and rely only on an alternative therapy.

Visual Imagery

Have you ever been in the middle of a stressful situation and wished you could be somewhere else—like lying on a tropical beach? Guided imagery helps you use your imagination to take you to a calm, peaceful place.

- Because of the way the mind and body are connected, guided imagery can make you feel like you are experiencing something just by imagining it.

- You can do guided imagery with audio recordings, an instructor, or a script (a set of written instructions) to lead you through the process.

- You use all of your senses in guided imagery. For example, if you want a tropical setting, you can imagine the warm breeze on your skin, the bright blue of the water, the sound of the surf, the sweet scent of tropical flowers, and the taste of coconut so that you actually feel like you are there.

- Imagining yourself in a calm, peaceful setting can help you relax and relieve stress.

How do you do guided imagery?

To give guided imagery a try, follow these steps:

1. Find a comfortable place to sit or lie down. Close your eyes.

2. Start by just taking a few deep breaths to help you relax.

3. Picture a setting that is calm and peaceful. This could be a beach, a mountain setting, a meadow, or a scene that you choose.

4. Imagine your scene and try to add some detail. For example, is there a breeze? How does it feel? What do you smell? What does the sky look like? Is it clear, or are there clouds?

5. It often helps to add a path to your scene. For example, as you enter the meadow, imagine a path leading you through the meadow to the trees on the other side. As you follow the path farther into the meadow you feel more and more relaxed.

6. When you are deep into your scene and are feeling relaxed, take a few minutes to breathe slowly and feel the calm.

7. Think of a simple word or sound that you can use in the future to help you return to this place. Then, when you are ready, slowly take yourself out of the scene and back to the present. Tell yourself that you will feel relaxed and refreshed and will bring your sense of calm with you.

8. Count to 3 and open your eyes. Notice how you feel right now.

It may help to have an instructor or audio recording to follow. You can also use a script (a set of written instructions) but hearing the instructions may be a better way to relax into the process.

Self-Hypnosis

Self-hypnosis or **autohypnosis** is a form, process or result of hypnosis which is self-induced, and normally makes use of self-suggestion.

Self-hypnosis is used extensively in modern hypnotherapy. It can take the form of hypnosis carried out by means of a learned routine. Hypnosis may help pain management, anxiety, depression, sleep disorders, obesity, asthma, and skin conditions. When this practice is mastered, it can improve concentration, recall, enhance problem solving, alleviate headaches and even improve one's control of emotions.

Steps commonly used for self-hypnosis

Self-hypnosis requires four distinct steps.

1. **Motivation**. Without proper motivation, an individual will find it very difficult to practice self-hypnosis

2. **Relaxation**: The individual must be thoroughly relaxed and must set aside time to perform this act. Additionally, distractions should be eliminated as full attention is needed.

3. **Concentration**: the individual needs to concentrate completely as progress is made each time the mind focuses on a single image.

4. **Directing**: This is an option used only when the individual wants to work on a specific goal. The individual must direct their concentration on visualizing the desired result.

Patients who are stressed and/or lack self-esteem can be taught self-hypnotic techniques which can induce relaxation and/or strengthen their self-esteem. Specifically, once the patient is in a self-hypnotic state the therapist can communicate messages to the patient, allowing the relaxation and strengthening process to occur.

When teaching self-hypnosis, a word or phrase should be stated to the patient for them to repeat. This will not work unless the patient deliberately uses the word or phrase to hypnotize themselves.

In addition, since stress prevents well-functioning of the immune system, researchers from the Ohio State University came to a conclusion that self-hypnosis to prevent stress can also help in protecting the immune system against the negative effects of it. They proved this by showing that students who performed self-hypnosis during stressful exam weeks showed a stronger immune system when compared to those who did not learn the technique of this phenomenon.

Humor, Stress, and Relaxation

Stress relief from laughter

A good sense of humor can’t cure all ailments, but data is mounting about the positive things laughter can do.

Short-term benefits

A good laugh has great short-term effects. When you start to laugh, it doesn't just lighten your load mentally, it actually induces physical changes in your body. Laughter can:

- **Stimulate many organs.** Laughter enhances your intake of oxygen-rich air, stimulates your heart, lungs and muscles, and increases the endorphins that are released by your brain.

- **Activate and relieve your stress response.** A rollicking laugh fires up and then cools down your stress response, and it can increase your heart rate and blood pressure. The result? A good, relaxed feeling.

- **Soothe tension.** Laughter can also stimulate circulation and aid muscle relaxation, both of which can help reduce some of the physical symptoms of stress.

Long-term effects

Laughter isn't just a quick pick-me-up, though. It's also good for you over the long term. Laughter may:

- **Improve your immune system.** Negative thoughts manifest into chemical reactions that can affect your body by bringing more stress into your system and decreasing your immunity. In contrast, positive thoughts can actually release neuropeptides that help fight stress and potentially more-serious illnesses.

- **Relieve pain.** Laughter may ease pain by causing the body to produce its own natural painkillers.

- **Increase personal satisfaction.** Laughter can also make it easier to cope with difficult situations. It also helps you connect with other people.

- **Improve your mood.** Many people experience depression, sometimes due to chronic illnesses. Laughter can help lessen your depression and anxiety and may make you feel happier.

Improve your sense of humor

Are you afraid you have an underdeveloped — or nonexistent — sense of humor? No problem. Humor can be learned. In fact, developing or refining your sense of humor may be easier than you think.

- **Put humor on your horizon.** Find a few simple items, such as photos, greeting cards or comic strips, that make you chuckle. Then hang them up at home or in your office. Keep funny movies, books or comedy albums on hand for when you need an added humor boost. Look online at joke websites. Go to a comedy club.

- **Laugh and the world laughs with you.** Find a way to laugh about your own situations and watch your stress begin to fade away. Even if it feels forced at first, practice laughing. It does your body good. Consider trying laughter yoga. In laughter yoga, people practice laughter as a group. Laughter is forced at first, but it can soon turn into spontaneous laughter.

- **Share a laugh.** Make it a habit to spend time with friends who make you laugh. And then return the favor by sharing funny stories or jokes with those around you.

- **Knock, knock.** Browse through your local bookstore or library's selection of joke books and get a few rib ticklers in your repertoire that you can share with friends.

- **Know what isn't funny.** Don't laugh at the expense of others. Some forms of humor aren't appropriate. Use your best judgment to discern a good joke from a bad, or hurtful, one.

Laughter is the best medicine: Go ahead and give it a try. Turn the corners of your mouth up into a smile and then give a laugh, even if it feels a little forced.

Mindfulness Meditation

Mindfulness is the quality of being fully engaged in the present moment, without analyzing or otherwise "over-thinking" the experience. Rather than worrying about the future or dwelling on the past, mindfulness meditation switches the focus to what's happening right now.

Meditations that cultivate mindfulness have long been used to reduce stress, anxiety, depression, and other negative emotions. Some of these meditations bring you into the present by focusing your attention on a single repetitive action, such as your breathing, a few repeated

words, or the flickering light of a candle. Other forms of mindfulness meditation encourage you to follow and then release internal thoughts or sensations. Mindfulness can also be applied to activities such as walking, exercising, or eating.

A basic mindfulness exercise:

- Sit on a straight-backed chair or cross-legged on the floor.

- Focus on an aspect of your breathing, such as the sensations of air flowing into your nostrils and out of your mouth, or your belly rising and falling as you inhale and exhale.

- Once you've narrowed your concentration in this way, begin to widen your focus. Become aware of sounds, sensations, and your ideas.

- Embrace and consider each thought or sensation without judging it good or bad. If your mind starts to race, return your focus to your breathing. Then expand your awareness again.

Practicing mindfulness meditation

To practice mindfulness meditation, you'll need:

- **A quiet environment.** Choose a secluded place in your home, office, or outdoors where you can relax without distractions or interruptions.

- **A comfortable position.** Get comfortable but avoid lying down as this may lead to you falling asleep. Sit up with your spine straight, either in a chair or on the floor. You can also try a cross-legged or lotus position.

- **A point of focus.** You can meditate with your eyes closed or open so this point can be internal—a feeling or imaginary scene—or external—a flame, an option in your surroundings, or a meaningful word or phrase that you repeat throughout the meditation.

- **An observant, noncritical attitude.** Don't worry about distracting thoughts that go through your mind or about how well you're doing. If thoughts intrude during your relaxation session, don't fight them, just gently turn your attention back to your point of focus.

UNIT – IV– Stress Management – SPSY1604

Coping Mechanisms

“Cope" is derived from the Latin word "colpus" meaning "to alter"

Coping with Life's Stressors

Stress sometimes gets the better of us. Coping strategies for big stressful life changes or negative situations can help you keep a positive self-image — and your equilibrium.

Why is it important to learn to cope with stress?

Coping usually involves adjusting to or tolerating negative events or realities while you try to keep your positive self-image and emotional equilibrium. Coping occurs in the context of life changes that are perceived to be stressful. Psychological stress is usually associated with negative life changes, such as losing a job or loved one. However, all changes require some sort of adaptation. Even positive changes — such as getting married or having a child — can be stressful.

Changes are stressful because changes require us to adjust and to adapt. Experiencing too many changes within a brief time period often creates the idea that we aren't in control of events. This perception contributes to low self-esteem and may even contribute to the development of anxiety or depression. In some cases, physical illnesses may develop or get worse when a person's capacity to adapt to change is overwhelmed by too much change.

Coping involves adjusting to unusual demands, or stressors. This requires giving a greater effort and using greater energy than what's needed in the daily routines of life. Prolonged mobilization of effort can contribute to elevated levels of stress-related hormones and to eventual physical breakdown and illness.

Stressors that require coping may be acute, like moving to a new home or experiencing the onset of marriage problems. Stressors also occur that are of longer duration, such as chronic pain, chronic illness or long-lasting financial problems.

The effect of many acute stressors that come within a relatively brief period of time may be cumulative and profound. Those who experience a marital separation, the death of an aging parent and a change in job within a brief period of time may struggle to maintain their physical and emotional health.

What are some common coping strategies?

Some common coping mechanisms may challenge you to:

- Lower your expectations.
- Ask others to help or assist you.
- Take responsibility for the situation.
- Engage in problem solving.
- Maintain emotionally supportive relationships.
- Maintain emotional composure or, alternatively, expressing distressing emotions.
- Challenge previously held beliefs that are no longer adaptive.
- Directly attempt to change the source of stress.
- Distance yourself from the source of stress.
- View the problem through a religious perspective.

Experts agree that coping is a process rather than an event. You may alternate between several of the above coping strategies in order to cope with a stressful event.

People differ in particular styles of coping or prefer to use certain coping strategies over others. These differences in coping styles usually reflect differences in personality. Rigidity in coping is less likely to help than is flexibility in coping — being able to fit the most appropriate coping strategy to the demands of different situations.

However, some situations that require coping are likely to elicit (bring out) similar coping responses from most people. For example, work-related stressors are more likely to elicit problem-solving strategies. Stressors that are perceived to be changeable are more likely to elicit problem-solving strategies while stressors perceived to be unchangeable are more likely to elicit social support seeking and emotion-focused strategies.

What can we do to protect ourselves against stress and enhance our prospects for successful coping? Perhaps the most important strategy is to maintain emotionally supportive relationships with others. A vast field of research demonstrates that emotional support buffers individuals against the negative impact of stress.

It's especially important to evaluate your overall lifestyle when encountering significant stress. Engage in stress-reducing activities to help your overall approach to coping with stressors. Try to:

- Get enough good quality sleep.
- Eat a well-balanced diet.
- Exercise on a regular basis.
- Take brief rest periods during the day to relax.
- Take vacations away from home and work.
- Engage in pleasurable or fun activities every day.
- Practice relaxation exercises such as yoga, prayer, meditation or progressive muscle relaxation.

- Avoid use of caffeine and alcohol.

Two types of coping

Problem-focused

Emotion-focused

Examples of Problem Focused: Coping Utilization of problem solving skills, Interpersonal conflict resolution, Advice seeking, Time management, Goal-setting, Gathering more information about what is causing one stress

Examples of Emotion Focused Coping: Denying the existence of the stressful situation, Freely expressing emotions, avoiding the stressful situation, Relaxation, Seeking social support, Exercising, Making social comparisons, Minimization of looking at the bright side of things.

Method Based on Rational Emotive Therapy (RET)

A: Activating System – identify the stressor

B: Belief System: Identify the underlying beliefs – Rational or Irrational

C: Consequences: Think of effects of indulging in irrational beliefs

D: Dispute Irrational Beliefs: Apply a firm "NO" to these irrational beliefs

E: Effect: Enjoy the effects of new and rational belief systems in your life

Irrational Beliefs: The idea that it is a dire necessity to be loved or approved by virtually every other significant person. The idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile. The idea that certain people are bad, wicked or villainous and that they need to be punished and blamed for their villainy. The idea that it is awful and catastrophic when things are not the way one would very much like them to be. The idea that human unhappiness is externally controlled, and that people have no ability to control their happiness. The idea that something is or may be dangerous or fearsome, one should be concerned about it, and should keep dwelling on the possibility of its

occurring. The idea that it is easier to avoid than to face certain life difficulties and self-responsibilities. The idea that one's past history is an all-important determiner of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect. The idea that one should be dependent on others and need someone stronger than oneself on whom to rely.

The idea that one should become quite upset over other people's problems. The idea that there is invariably a right, precise, and perfect solution to human problems, and that is catastrophic if this perfect solution is not found.

Expressions of Rational Beliefs: Moderate evaluation of badness, e. g., "It is bad, but not terrible." Statements of toleration, e. g., "I don't like it, but I can bear it." Acceptance of fallibility, e. g., "I was wrong." Avoidance of extremes, e. g., "Often, I do well." Instead of "I always do well."

Method Based on Simplified Kundalini Yoga (SKY)

Thathuvagnani Vethathiri Maharishi established Simplied Kundalini Yoga (SKY)Classify worries into four categories: Worries that should be faced, e. g., disability in a family member Worries that should be solved immediately, e. g., credit card debt Worries that may be postponed, e. g., a person who may have reached the age of marriage not being able to find an appropriate partner. Worries to be ignored, e. g., undue criticism of one's choice of clothing by a family member

Method Based on Gestalt Therapy:

Gestalt (German) -- whole, configuration n Definition: Single physical, psychologic, or symbolic configuration, pattern or experience consisting of a number of elements that has an effect as a whole different from that of sum of its parts

Principle: Unity of self-awareness, behavior, and experience Tenets: Focus on the "NOW" Be in "touch with what is" Help a person overcome barriers that block awareness Questions to focus on: Where are you now? What are you experiencing now? What are you aware of now?

Method based on Systematic Desensitization

Described by Joseph Wolpe in 1958. Requires making a fear hierarchy or breaking down the anxiety producing events into small steps. Then practicing relaxation by visualizing each small

step and relaxing mentally with that step thereby reducing anxiety when faced in real life with that problem.

Cognitive Behavioral Therapy (CBT)

Form of psychotherapeutic treatment that is based on a practical orientation toward problem-solving. The purpose of CBT is to change one's negative pattern of thinking or behavior that is the basis of one's stress. It helps in changing the way one feels about things.

Step 1: Identify a situation that is producing stress in your mind.

Step 2: Identify the thoughts behind this stress.

Step 3: Identify the negative automatic thoughts.

Step 4: Can you trace these negative thoughts to your childhood and see how these are repetitively occurring?

Step 5: Can you examine these negative thoughts against real life experiences to see what actually happens to you or to others in similar situations and that these negative thoughts rarely materialize?

Step 6: Correct your misperceptions about negative thoughts and replace them with positive thoughts. Do not be biased by negative thoughts – believe that they are rare to occur.

Regular physical activity and exercise

Physical activity leads to a lowering of the overall stress levels and it also improves your quality of life both physically and mentally.

Role of exercise in relieving stress

Any physical activity improves the capability of your body to use oxygen and it also leads to better blood flow. More significantly, both these things lead to a direct good effect on the brain. Exercise increases the production of endorphins in the brain. The endorphins are the neurotransmitters that are responsible for the "feel good" effect you feel and they also provide you with the much-desired "runners-high". In simple terms, it is the sense of euphoria or wellbeing people receive after performing the exercise.

The physical activities take your mind off the day-to-day worries. Repetitive motions you perform during the exercise routine promote a focus on the body instead of that on the mind. If you can focus on the physical movements you will experience similar benefits to that of

meditation. Concentrating on a single physical task produces a sense of optimism and increases energy levels apart from providing clarity and calmness.

Several people notice mood improvement after they have worked out. These good effects don't end here. They are cumulative over time. In all probability, you will get a greater feeling of wellbeing when you are committed to an exercise routine consistently. Apart from the direct effect on the level of stress, regular exercising also promotes better health in other ways. Improvement in the overall health leads to moderation of stress levels indirectly. With an improvement in overall physical health, there are fewer reasons to feel stressed about.

Direct benefits of exercise in a nutshell

Apart from improving your overall health the exercise also helps in,

● Strengthening the bones and muscles.

● Improving immunity which leads to a lesser risk of infections and sickness.

● Lowering of blood pressure. It can have the same effect as that of antihypertensive medicine in some cases.

● Improves the good cholesterol levels in the blood.

● Boosts the energy level.

● Provides better blood circulation.

● Improves the capability to control weight.

● Helps in getting better sleep at night.

● Improves self-esteem.

Type of exercise required for relieving stress

There are several ways available to satisfy your weekly exercise target. How do you choose the best physical activity for your exercise? There is no need for you to be an elite athlete or a long-distance runner to achieve stress relief. Almost all kinds of exercises are useful in some way or the other. For instance, you can perform these moderate aerobic exercises such as,

● Jogging or brisk walking.

● Biking. Furthermore, if your health is in any way compromised, you can opt for a pedal-assisted ride, through an e-bike, say experts from Bikeberry

● Water aerobics or swimming.

● Rowing.

● Dancing.

● Playing racquetball or tennis.

Exercise and stress relief

Exercise increases your overall health and your sense of well-being, which puts more pep in your step every day. But exercise also has some direct stress-busting benefits.

- **It pumps up your endorphins.** Physical activity may help bump up the production of your brain's feel-good neurotransmitters, called endorphins. Although this function is often referred to as a runner's high, any aerobic activity, such as a rousing game of tennis or a nature hike, can contribute to this same feeling.
- **It reduces negative effects of stress.** Exercise can provide stress relief for your body while imitating effects of stress, such as the flight or fight response, and helping your body and its systems practice working together through those effects. This can also lead to positive effects in your body—including your cardiovascular, digestive and immune systems—by helping protect your body from harmful effects of stress.
- **It's meditation in motion.** After a fast-paced game of racquetball, a long walk or run, or several laps in the pool, you may often find that you've forgotten the day's irritations and concentrated only on your body's movements.

As you begin to regularly shed your daily tensions through movement and physical activity, you may find that this focus on a single task, and the resulting energy and optimism, can help you stay calm, clear and focused in everything you do.

- **It improves your mood.** Regular exercise can increase self-confidence, improve your mood, help you relax, and lower symptoms of mild depression and anxiety. Exercise can also improve your sleep, which is often disrupted by stress, depression and anxiety. All of these exercise benefits can ease your stress levels and give you a sense of command over your body and your life.

Put exercise and stress relief to work for you

A successful exercise program begins with a few simple steps.

- **Consult with your doctor.** If you haven't exercised for some time or you have health concerns, you may want to talk to your doctor before starting a new exercise routine.
- **Walk before you run.** Build up your fitness level gradually. Excitement about a new program can lead to overdoing it and possibly even injury.

For most healthy adults, the Department of Health and Human Services recommends getting at least 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity a week, or a combination of moderate and vigorous activity. Examples of moderate aerobic activity include brisk walking or swimming, and vigorous aerobic activity can include running or biking. Greater amounts of exercise will provide even greater health benefits.

Also, aim to do strength training exercises for all major muscle groups at least two times a week.

- **Do what you love.** Almost any form of exercise or movement can increase your fitness level while decreasing your stress. The most important thing is to pick an activity that you enjoy. Examples include walking, stair climbing, jogging, dancing, bicycling, yoga, tai chi, gardening, weightlifting and swimming.

And remember, you don't need to join a gym to get moving. Take a walk with the dog, try body-weight exercises or do a yoga video at home.

- **Pencil it in.** In your schedule, you may need to do a morning workout one day and an evening activity the next. But carving out some time to move every day helps you make your exercise program an ongoing priority. Aim to include exercise in your schedule throughout your week.

Stick with it

Starting an exercise program is just the first step. Here are some tips for sticking with a new routine or refreshing a tired workout:

- **Set SMART goals.** Write down SMART goals — specific, measurable, attainable, relevant and time-limited goals.

If your primary goal is to reduce stress in your life, your specific goals might include committing to walking during your lunch hour three times a week. Or try online fitness videos at home. Or,

if needed, find a babysitter to watch your children so that you can slip away to attend a cycling class.

- **Find a friend.** Knowing that someone is waiting for you to show up at the gym or the park can be a powerful incentive. Try making plans to meet friends for walks or workouts. Working out with a friend, co-worker or family member often brings a new level of motivation and commitment to your workouts. And friends can make exercising more fun!
- **Change up your routine.** If you've always been a competitive runner, take a look at other, less competitive options that may help with stress reduction, such as Pilates or yoga classes. As an added bonus, these kinder, gentler workouts may enhance your running while also decreasing your stress.
- **Exercise in short bursts.** Even brief bouts of physical activity offer benefits. For instance, if you can't fit in one 30-minute walk, try a few 10-minute walks instead. Being active throughout the day can add up to provide health benefits. Take a mid-morning or afternoon break to move and stretch, go for a walk, or do some squats or pushups.

Interval training, which entails brief (60 to 90 seconds) bursts of intense activity at almost full effort, can be a safe, effective and efficient way of gaining many of the benefits of longer duration exercise. What's most important is making regular physical activity part of your lifestyle.

Whatever you do, don't think of exercise as just one more thing on your to-do list. Find an activity you enjoy — whether it's an active tennis match or a meditative meander down to a local park and back — and make it part of your regular routine. Any form of physical activity can help you unwind and become an important part of your approach to easing stress.

UNIT – V– Stress Management – SPSY1604

Implementing a stress reduction plan:

Importance of Implementing a plan:

Developing a personal action plan helps us manage stress to live a long, healthy life. To develop your action plan for coping with stress, complete the following steps:

Write down two or three of your major stressors. (Sources of stress)

Determine a realistic goal for each stressor and write it down. (How do you want things to be?)

Identify activities or strategies that will help you complete each goal. (What do you need to do to reach this goal?)

Determine how much time you will need to reach each goal.

Think about who might help you reach each goal. (Who can you depend on to hold you accountable for reaching your goal?)

How will you celebrate when you reach each goal? (What can you do for yourself to celebrate this accomplishment?)

Stages of Changing Unhealthy Behaviors

The transtheoretical model of behavior change, based on five stages of change, assesses a person's readiness to stop an old, unhealthy behavior and act on a new, healthy behavior.

Key Points

- Created by Prochaska and DiClemente in the 1970s, the transtheoretical model (also called the stages-of-change model) proposes that change is not a discrete decision but is instead a five-step process that consists of *precontemplation, contemplation, preparation, action,* and *maintenance.*
- At the precontemplation stage, an individual may or may not be aware of a problematic behavior, and generally has no desire to change their behavior.

- At the contemplation stage, participants are intending to start the healthy behavior but are still ambivalent.
- People at the preparation stage are ready to start taking action and take small steps that they believe can help them make the healthy behavior a part of their lives.
- In the action stage, people have changed their behavior and need to work hard to keep moving ahead. An individual finally enters the maintenance stage once they exhibit the new behavior consistently for over six months.
- Despite the stress caused by their problem behavior, many people simply are not ready to initiate change; the stages-of-change model helps assess where on the spectrum they fall and to guide treatment efforts accordingly.

Term

- Transtheoretical model
  Also called the stages-of-change model; a model that describes behavior change as a process that involves a number of different stages.

The Process of Change

Because health psychology is interested in the psychology behind health-related behaviors, it also concerns itself with how people can learn to *change* their behaviors. The transtheoretical model of behavior change assesses an individual's readiness to act on a new healthier behavior, and provides strategies to guide the individual through each stage of the behavior-change process.

Created by Prochaska and DiClemente in the 1970s, the model proposes that change is a process rather than a discrete decision. People must build up the motivation to change and this motivation is dependent on a number of personal and environmental factors. According to the transtheoretical model, behavioral change is a five-step process, consisting of *precontemplation, contemplation, preparation, action,* and *maintenance*.

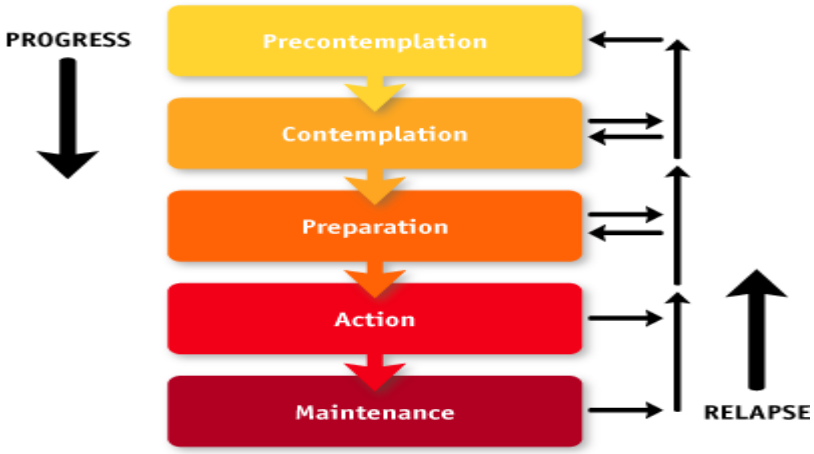

Figure 3: Stages-of-change model. The stages-of-change model explains behavior change as a process rather than a discrete decision.

Stages-of-change model

The stages-of-change model explains behavior change as a process rather than a discrete decision.

Precontemplation

At the precontemplation stage, an individual may or may not be aware of a problematic behavior, and generally has no desire to change their behavior. People in this stage learn more about healthy behavior: they are encouraged to think about the benefits of changing their behavior and to feel emotions about the effects of their negative behavior on others. Precontemplators typically underestimate the pros of changing and overestimate the cons. One of the most effective steps that others can help with at this stage is to encourage them to become more mindful of their decision making and more conscious of the multiple benefits of changing an unhealthy behavior.

Contemplation

At this stage, participants are intending to start the healthy behavior, often within the next six months. While they are usually more aware of the pros of changing, their cons are about equal to their pros. This ambivalence about changing can cause them to keep putting off taking action. People in this stage learn about the kind of people they could be if they changed their behavior and learn more from people who behave in healthy ways. Others can help people at this stage by encouraging them to work on reducing the cons of changing their behavior.

Preparation

People at this stage are ready to start taking action, generally within the next 30 days. They take small steps that they believe can help them make the healthy behavior a part of their lives, such as telling their friends and family. People in this stage should be encouraged to seek support, tell people about their plan to change, and think about how they would feel if they behaved in a healthier way. Their main concern is this: When they act, will they fail? They learn that the better prepared they are, the more likely they are to keep progressing.

Action

In the action stage, people have changed their behavior and need to work hard to keep moving ahead. These participants need to learn how to strengthen their commitments to change and to fight urges to slip back. Useful techniques at this stage can include substituting activities related to the unhealthy behavior with positive ones, rewarding themselves for taking steps toward changing, and avoiding people and situations that tempt them to behave in unhealthy ways.

Maintenance

An individual finally enters the maintenance stage once they exhibit the new behavior consistently for over six months. It is important for people in this stage to be aware of situations that may tempt them to slip back into doing the unhealthy behavior—particularly stressful situations. It is recommended that people in this stage seek support from and talk with people they trust, spend time with people who behave in healthy ways, and remember to engage in healthy activities to cope with stress instead of relying on unhealthy behavior.

Some theorists suggest a sixth phase called termination, in which individuals have no temptation to return to old unhealthy behaviors as a way of coping. Importantly, the progression through these stages is not strictly linear. People may move back and forth between the stages as their motivation changes. Often people relapse in their behavior multiple times before finally achieving maintenance. In this way, relapse is conceptualized as a return from the action or maintenance stage to an earlier stage.

Applying the Stages of Change

The stages-of-change model has been widely utilized in the treatment of health-related behaviors such as substance use, obesity, diabetes, and other problem behaviors. Change is a difficult process that requires close analysis of the benefits and costs of the behavior. For

instance, a smoker must come to the conclusion that the health risks associated with their smoking are more important to them than the benefits, which may include taste, stress relief, social aspects, or other factors. Coming to this decision is no easy task; despite the stress caused by their problem behavior, many people simply are not ready to initiate change. This model helps assess where on the spectrum a person falls and helps guide treatment efforts accordingly.

Goal Setting

Stress Management Plan

Use the 10 R's given below, to help you create a stress management plan to manage your identified stressors.

	How would you apply this to yourself (write the answers in the rows below)
The ten R's of Stress Management	
Recognize – What is causing the stress? Don't linger on the symptoms too long.	
Realize – There are some things outside your control. Don't worry about things you can't control.	
Reorganize – In order to reduce your stress.	
Regulate – If there are things in your life that you do to excess, then lower them. By lowering your excess, you can lower your stress levels. For example, reduce your coffee intake, coffee stimulates the body for approximately 30-60min. Coffee raises the stress hormones in the bloodstream. It also has half-life of up to five hours, dropping energy levels and causing fatigue. Also, ensure you get enough sleep, when you are stressed you need more sleep.	
Reality Check – What is important to you in life? Remind yourself of all the things that you have achieved that matter to you. Think positively and remind yourself about what is good in your life.	
Return – Go back to the source and get more information if you need it. For example, if you have to give a presentation at work and are unsure of its content ask your boss. There is no harm in asking for more guidance. You are not saying that you can't cope but it is a simple way of reducing stress from the beginning.	
Refuse –	

There are times you need to say no! It is better to say no, than to say yes and not deliver.	
Redirect – Delegate! By delegating you are reducing your stress. You are also helping others to train whom in turn will in the future help you further and hence minimising your stresses of the future.	
Reflect – Think about all that you have achieved. Be happy with yourself, recognise how capable you really are.	
Relax – It is important to ensure that you find time to relax. Set aside time for relaxation and most importantly don't feel guilty. You deserve it.	

Table 1: Stress Management Plan

A Lifetime of Stress Management

Below are some ways to manage stress throughout your life.

Based on research, it is the general consensus that the best way to manage stress is to deal with it the moment that you feel it coming on. Do not put it off until a time when the body would have already activated its stress response.

Seek to create inner balance in your body and realize that positive emotions will create coherent heart rhythms, while on the contrary, negative emotions create erratic, chaotic patterns in the heart beat.

1. Identify the source of your stress –

You can do this by noting on paper the things that pushes you to have negative emotions such as anger, fear, etc. Note also the time of day – whether early morning or closer towards the end of the work day. Next categorize your problems, them based on the list of causes given earlier. It's a good time to remove the source and seek to find a balance.

2. Check and re-check your to-do list –

You are neither superman nor super woman. Simplify your life, trim the fat off that list and remove things that do not add value or is not directly linked to the outcome of your goals. Delegate responsibility to others where possible.

3. Set your house in order –

By that I mean you must prioritize. Everything cannot be done all at once. *Stop multitasking* – it gives a false sense that you are making progress when in reality you are not. Assign each task or project a number and start working on them in order of the one that is most life threatening and so on, so forth.

4. Laugh, laugh and laugh –

Why laugh so much? Laughter is a good medicine, and humor can heal a soul that is wounded and stressed. It causes your body to release endorphins that quickly improve your mood.

5. Develop strategies that enable you to think positively –

Being optimistic will enable you to cope much better under stressful conditions. This also include surrounding yourself with positive thinkers, and people who will encourage you to stick with your goals in life.

6. Avoid negative people –

They demand a lot of your energy. Avoiding them is one way of removing stress and getting rid of toxins and lowering stress causing hormones such as cortisol and adrenaline.

7. Embrace spirituality –

Spirituality is a sure and effective way of filling your life with inner peace and tranquility, while it gives you a clearer sense of your purpose. It helps you to regulate your pace and gives you a more positive outlook on life

8. Take time out to unplug and re-energize yourself –

Social media has its advantages as it helps you build relationships and friendships but it is not worth dying for.

9. Lower your expectations –

Give yourself permission to lower your standard of expectation of always getting a perfect score for everything you do. Very quickly, you will rid yourself of the perfectionist in your head that's been refusing to get a less-than a perfect 10 score.

12. Turn off the light and sleep –

Your body functions at an optimal level when you get the required number of hours sleep. The fewer hours of sleep your body get, the more of the stress hormone cortisol it produces

13. Avoid chemical stimulants and sugar –

The more stressed you get the more of these (coffee, coke, sweet muffins, doughnuts) your body will crave but the catch is – the more your body crave them, the more stressed you become.

14. Set aside time for family bonding –

You need people who love, support and care for you in emotional and stressful times and when times are tough. Sharing what you are going through is a way of releasing stress.

Social support

Social support has been widely studied as a factor that minimizes the effects on stress, and the results are somewhat striking. Not only does social support help people feel less stressed, but it can also actually improve your health and decrease their mortality risk. Here's more of what you need to know about the relationship between your relationships and the effects of stress on your body and mind.

Social Support Basics

We all have a good basic idea of what it means to have social support in one's life, but when discussing research, it helps to be precise. Social support, when studied by psychologists, is often defined as "acts that communicate caring; that validate the other's words, feelings or actions; or that facilitate adaptive coping with problems through the provision of information, assistance, or tangible resources". There are a few different types of social support, all of which are beneficial.

Types of Social Support

Not all types of social support are the same. Different forms of support carry different benefits. Here are some of the main types.

- Emotional Social Support includes affirmations of one's worth, concern about one's feelings, and the sharing of positive regard. This falls along the lines of listening to and validating feelings, letting others know they are valued, and offering a shoulder to cry on.
- Informational Social Support involves the sharing of advice or information that can help someone who is experiencing a stressor or challenge they don't know how to handle. This includes offering advice that people may find useful, pointing people to experts who may offer advice, and sharing experiences.
- Tangible Social Support includes sharing resources, either material or financial. Obviously, this can include providing loans of monetary gifts, but it can also involve offers to share childcare duties, helping a friend move, or even bringing a casserole to a grieving family.
- Belonging Social Support involves providing social leisure and belonging. This means including friends in the group, and spending time with friends who need support and may feel alone.

Effects of Social Support

- One study from the University of Utah examined the effects of three of these different types of social support among married couples and found that emotional, tangible, and informational support all helped lower blood pressure when individuals were faced with short-term stressors.
- Another study that analyzed 148 smaller studies showed a definitive finding that social support is heavily linked with health and wellbeing. In examining the link between social support and mortality, the research found a surprising 50% increased likelihood of survival for participants with stronger relationships. This finding remained consistent across age, sex, initial health status, cause of death, and follow-up period.
- Research has documented many physiological and mental health benefits of social support, including improved immune, cardiovascular, and neuroendocrine function; positive adjustment to chronic disease; decreased depression and anxiety; and effective buffering against the negative effects of stress.

- Sadly, many people are more socially isolated than they'd like to be, despite perhaps having connections to acquaintances through social media. Researchers measure the closeness of relationships in different ways, but many of these measures show "social poverty" or a lack of social support. It is possible to have a large group of acquaintances but still feels lonely, and many people do. If you're feeling a lack of social connection with others, you're not alone.

Social Support for Stress Relief

Social support can be great for your stress levels, making stressful situations less damaging to your mental and physical health. Creating a circle of supportive friends may take a little effort, but it is worth it in terms of benefits to your general health and wellbeing. Creating strong relationships in your life is therefore vital for you and for those you love.

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