SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES

Osudu, Agaram Village, Kudapakkam Post, Pondicherry – 605 502.

DEPARTMENT OF PHYSIOLOGY

Date:20.7.2021

From
Dr.V.Senthil kumar
Professor and Head,
Physiology
Sri Lakshmi Narayana Institute of Medical sciences
Puducherry

To
The Dean,
Sri Lakshmi Narayana institute of Medical sciences
Puducherry

Sub: Permission to conduct value-added course: Certificate course in Stress management

Dear Sir,

With reference to the subject mentioned above, the department proposes to conduct a value-added course titled: Certificate course in Stress management & Code: PHY C01 from September 2021 – December 2021. We solicit your kind permission for the same.

Kind Regards

Dr.V.Senthil kumar

FOR THE USE OF DEANS OFFICE

Names of Committee members for evaluating the course:

The Dean:Dr.Jayakumar

The HOD: Dr.V.Senthil kumar

The Expert:Dr.R.Vijayakumar

The committee has discussed about the course and is approved.

Dean	Subject Expert	HOD
(Sign &Seal)	(Sign &Seal)	(Sign &Seal)

DEAN
SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES
OSUDU, AGARAM VILLAGE,
KOODAPAKKAM POST,
PUDUCHERRY - 605 502

Dr. R. VIJAYAKUMAR
PROFESSOR IN PHYSIOLOGY
SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES
Osudu, Agaram Village, Pondicherry - 605 502

PROFESSOR & HOD
DEPARTMENT OF PHYSIOLOGY
Sri Lakshmi Narayana Institute Of Medical Sciences
PONDICHERRY - 605 502.

OFFICE OF THE DEAN

Sri Lakshmi Narayana Institute of Medical Sciences

OSUDU, AGARAM VILLAGE, VILLIANUR COMMUNE, KUDAPAKKAM POST,
PUDUCHERRY - 605 502.

[Recognised by Medical Council of India, Ministry of Health letter No. U/12012/249/2005-ME (P -II) dt. 11/07/2011]
[Affliated to Bharath University, Chennai - TN]

Ref. No. SLIMS/Dean Off/VAC / 272

Circular

Date: 28.7.2021

Sub: Organising Value-added Course: Certificate course in Stress management & Code: PHY C01, Reg

With reference to the above mentioned subject, it is to bring to your notice that Sri Lakshmi Narayana Institute of Medical sciences, is organizing "Certificate course in Stress management & Code: PHY C01". The course content is enclosed below."

The application must reach the institution along with all the necessary documents as mentioned. The hard copy of the application should be sent to the institution by registered/ speed post only so as to reach on or before August 2021. Applications received after the mentioned date shall not be entertained under any circumstances.

Dean

DEAN
SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES
OSUDU, AGARAM VILLAGE,
KOODAPAKKAM POST,
PUDUCHERRY - 605 502

Encl: Copy of Course content.

Course Proposal

Course Title: Certificate course in Stress management& Code: PHY C01

Course Objective: At the end of the course the participants should know about

Definition of Stress
Body Responses to Stress
Benefits and Costs of Stress
Stress Management
A Prescription for Stress Management
Define key terms related to stress, the stress response, and stress management.
Explain the physiological and psychological changes that occur in response to stress.
Identify the positive and negative effects of stress.
Identify various stress management techniques and the benefits of each technique.
Explore and apply the content in a personally meaningful manner.

Course Outcome: On successful completion of the course the students will have the knowledge on various stress management techniques and the benefits of each technique

Course Audience: Ist year M.B.B.S students (2021-2022 batch)

Course Coordinator: DR.V.Senthilkumar

Course Faculties with Qualification and Designation:

1. Dr.R.Vijayakumar,Msc,PhD,Professor,Physiology
2. Dr.V.Anebaracy,M.B.B.S,M.D,Assistant Professor,Physiology

Course Curriculum/Topics with schedule (Min of 30 hours)

SlNo	Date	Topic	Time	Faculty	Hours
1	3/9/2021	Definition of Stress Body Responses to Stress	1.30 pm to 6.30 pm	Dr.R.Vijayakumar	5
2	17/9/2021	Benefits and Costs of Stress Stress Management	2 pm to 6 pm	Dr.V.Anebaracy	4
3	1/10/2021	A Prescription for Stress Management	2 pm to 5 pm	Dr.R.Vijayakumar	3

4	22/10/2021	Define key terms related to stress, the stress response, and stress management	2 pm to 5 pm	Dr.V.Anebaracy	3
5	29/10/2021	Explain the physiological and psychological changes that occur in response to stress.	1.30 pm to 6.30 pm	Dr.R.Vijayakumar	5
6	5/11/2021	Identify the positive and negative effects of stress.	2 pm to 6 pm	Dr.V.Anebaracy	4
7	19/11/2021	Identify various stress management techniques and the benefits of each technique	2 pm to 6 pm		4
8	10/12/2021	Explore and apply the content in a personally meaningful manner.	1.30 pm to 6.30 pm	Dr.V.Anebaracy	5
			Total Hours		30

REFERENCE BOOKS:

1. The Upside of Stress. Why Stress Is Good For You, and how To Get Good at It. By Kelly Mcgonigal

2. Declutter Your Mind: How To Stop Worrying, Relieve Anxiety,and Eliminate Negative Thinking.By S.J.Scott

VALUE ADDED COURSE

1. Name of the programme & Code

Certificate course in Stress management & Code: PHY C01

2. Duration & Period

30 hrs & September 2021– December 2021

3. Information Brochure and Course Content of Value Added Courses

Enclosed as Annexure- I

4. List of students enrolled

Enclosed as Annexure- II

5. Assessment procedures:

Multiple choice questions- *Enclosed as Annexure- III*

6. Certificate model

Enclosed as Annexure- IV

7. No. of times offered during the same year:

One time from September 2021– December 2021

8. Year of discontinuation: 2021

9. Summary report of each program year-wise

Value Added Course- September 2021– December 2021					
Sl. No	**Course Code**	**Course Name**	**Resource Persons**	**Target Students**	**Strength & Year**
1	PHYC01	Certificate course in stress management	Dr.R.Vijayakumar Dr.V.Anebaracy	1st MBBS	20 2021

10. Course Feed Back

Enclosed as Annexure- V

RESOURCE PERSON:

Dr.R.Vijayakumar

RESOURCE PERSON:

Dr.V.Anebaracy

VSK

COORDINATOR

Dr.V.Senthilkumar

CERTIFICATE COURSE IN STRESS MANAGEMENT

CODE: PHY C01

PARTICIPANT HAND BOOK

COURSE DETAILS

Particulars	Description
Course Title	Certificate course in stress management
Course Code	Code: PHY C01
Objective	• Definition of Stress • Body Responses to Stress • Benefits and Costs of Stress • Stress Management • A Prescription for Stress Management • Define key terms related to stress, the stress response, and stress management. • Explain the physiological and psychological changes that occur in response to stress. • Identify the positive and negative effects of stress. • Identify various stress management techniques and the benefits of each technique. • Explore and apply the content in a personally meaningful manner.
Further learning opportunities	Advance course in stress management.
Key Competencies	• On successful completion of the course the students will have the knowledge on various stress management techniques and the benefits of each technique.
Target Student	1st MBBS Students
Duration	30 hrs & & September 2021– December 2021
Theory Session	20hrs
Practical Session	10hrs
Assessment Procedure	Multiple choice questions

CERTIFICATE COURSE IN STRESS MANAGEMENT CODE: PHY C01

What is Stress?

Although "stress" is a commonly used term in today's vernacular, and most people appear to have an intuitive sense of what it means, stress is difficult to precisely define as it is often used interchangeably with a variety of other terms, such as anxiety, pressure, or strain. In a general sense, stress refers to a collection of physiological, emotional, behavioral and cognitive reactions that occur in response to environmental demands. As we interact with the world around us, we must make constant appraisals of environmental threats, challenges, and demands and attempt to cope with any issues that arise. At times, environmental demands are easily handled, such as when you have to press a button on a key to unlock your car. However, at other times, the demands of the environment can seem daunting or unmanageable, such as when you have to take three exams on the same day, and result in feelings of physical tension, negative thought patterns, and unpleasant emotional experiences. Lazarus and Folkman (1984) suggested that stress results when the

demands of the environment are greater than the individual's perceived coping resources.

A "stressor" is any event or stimulus that causes stress. However, what serves as a stressor for one person may not be the same for another. For example, being asked to attend a social event may create stress for someone who perceives that they lack the necessary social skills to fit in, whereas another person who feels comfortable in social situations may not experience any stress. Stressors can take many forms, ranging from the daily hassles of life to significant life changes. Daily hassles are

the regularly occurring events or situations that we experience in everyday life, such as misplacing items, concerns about weight, or having to wait your turn. Any one of these events is unlikely to have a major impact on our overall quality of life. In contrast, life changes, such as death of a family member, getting married, or a negative health diagnosis are more significant. Notice that not all stressors are negative. Getting married, having children, and starting a new job are often positive experiences, though they can create a significant amount of stress because they require us to alter our lives and adjust to new circumstances.

College is a transitional time of life when new and unique stressors are often being encountered. Not only are college students often away from home for the first time and forced to be more self-sufficient, but they must also cope with the increasing demands of the academic environment. Changes in sleep and eating habits, increased financial responsibilities, having to share living space and possessions with strangers, and increased exposure to alcohol, drugs, and sex are only a few of the additional stressors often encountered by college students. To exacerbate matters, college students are often forced to cope with the challenges of college stressors with reduced access to their traditional support systems, such as family and long-time friends. Thus, it is important for college students to increase their awareness about stress, the impact that excessive stress can have on physical and mental health, and various coping strategies and techniques available to help cope with the challenges of the college environment.

Body Responses to Stress

When threatened by environmental dangers, changes, or demands, humans experience a variety of physiological and psychological changes. Once a threat has been recognized and appraised as dangerous, the individual evaluates available coping resources. If the demands of the situation are deemed to be greater than the available coping resources, an "alarm" or "Fight-or-Flight Response" is generated. During the fight-or-flight response, the body prepares for action, generally consisting of either confrontation or avoidance of the threat. The sympathetic nervous system is activated, and hormones, including adrenaline and noradrenaline, are released into the blood stream. Heart and respiration rates accelerate and blood pressure increases, enabling the body to quickly circulate oxygen-rich blood to the brain and large muscles of the body. Blood is redirected away from the extremities to the core, and digestive processes are slowed. Muscles tend to become tense, eyes dilate, and hearing becomes more acute. Sweat glands activate to cool the body, and the skin often becomes paler or flushed.

Concurrent with these physiological changes, the fight-or-flight response tends to generate various psychological processes. Attention becomes heightened and narrowed, with particular focus on threat relevant cues, and one's ability to attend to and concentrate on other tasks can be impaired. Short-term memory and decision-making abilities can also be negatively affected by high stress, and, emotionally, people tend to report feeling jittery, "on edge", fearful, anxious, and restless. Pacing, fidgeting, and avoidance behaviors are common behavioral manifestations of a stress-induced alarm

reaction, and many people experience an urge to avoid the stressor or to flee from the situation. If the person is able to successfully manage or avoid the stressor, the body begins to return to homeostasis. However, chronic exposure to stress or recurrent confrontations with stressful stimuli can begin to take a toll on the individual.

Benefits and Costs of Stress

Although we generally think of stress as something to avoid, stress is a natural, adaptive response that serves a protective function. At moderate levels, stress helps alert us to potential threats in the environment and enables us to focus our attention on resolving the threat. Stress also provides us with the energy needed to confront or retreat from the threat via the "fight-flight" response.

Although some stress is beneficial, prolonged or intense stress can be associated with a variety of negative physical and psychological outcomes. For example, whereas moderate amounts of stress help to focus our attention, excessive stress leads to diminished attention, concentration, decision-making, and short-term memory. High stress can also lead to a variety of emotional disturbances, including irritability, depression, and anxiety disorders. Indeed, many researchers consider stress a core component of the cause of emotional disorders. Chronic high stress is associated with serious physical health concerns, including cardiovascular disease, hypertension, immunosuppression and more frequent illnesses, sexual dysfunction, gastrointestinal disorders, and recurrent headaches.

High levels of stress are also associated with a variety of behaviors and lifestyle choices that can have negative health outcomes. Research indicates that individuals experiencing high stress are more likely to engage in excessive alcohol consumption and increased use of drugs and tobacco products. Ironically,

alcohol increases cortisol levels, which can prolong the feeling of tension generated by stress responses. Stress can change the way the body processes alcohol, resulting in a reduction in the pleasant effects of alcohol and increased craving for more alcohol. In addition, chronic alcohol consumption and tobacco use are leading causes of a variety of chronic health problems, including lung and liver cancer, cirrhosis of the liver, emphysema, coronary heart disease, and stroke.

It is important to recognize that exceptionally low levels of stress can have negative consequences as well. For example, when arousal levels are too low, people generally experience boredom, poorer cognitive and physical performance, procrastination, and lack of attention to detail. The Yerkes-Dodson Law, developed by psychologists in the early 1900's, holds that organisms' physiological and mental functioning tends to be optimal when experiencing mild to moderate levels of arousal. Although the level of stress and arousal required for optimal functioning varies depending on the type of task, research over the past century has generally been supportive of this notion, which has shaped how stress and anxiety are conceptualized and treated.

Stress Management

Given the beneficial nature of mild to moderate levels of stress, the goal of stress management is not to eliminate all stress. Rather, stress management techniques are designed to keep stress levels within an optimal range. Engaging in healthy lifestyle behaviors can help to reduce stress and maximize the likelihood of living a long, healthy life. The following stress management techniques have been consistently supported by empirical research: physical activity and exercise; healthy eating; adequate sleep; relaxation, mindfulness and meditation; laughter, self-expression and social support; and

cognitive restructuring.

Physical Activity and Exercise

Considerable evidence has accumulated indicating that regular physical exercise is associated with numerous physical and psychological health benefits. For example, regular engagement in moderate exercise, such as a brisk walk, strengthens the immune system and decreases rates of illness. Exercise also strengthens body muscles, including the heart, preserves muscle mass, and helps with weight management. Individuals who exercise regularly are also at a reduced risk for some chronic diseases, such as diabetes and hypertension.

Although exercise is, technically, a stressor itself, requiring the body to adapt to the demands of the activity, research suggests that regular physical exercise can help to reduce the body's reactivity to other stressors. In fact, several studies have demonstrated that individuals who exercise demonstrate lower physiological (e.g., blood pressure, heart rate) markers of stress and report less anxiety in response to a stressful situation than those who do not exercise. This finding is particularly important given that stressful events precede approximately 80 percent of major depressive episodes, and stress is a central risk factor for the development of panic attacks, generalized anxiety, posttraumatic stress, social anxiety, and phobias. Thus, involvement in regular exercise may help protect against or prevent the onset of anxiety and mood disturbances. In addition, accumulating research suggests that regular physical activity is effective in treating many of these conditions once they develop. In fact, some studies suggest that exercise is as effective as psychotherapy or medication in

treating some anxiety and mood disorders. For example, in one study, individuals who experienced recurrent panic attacks responded to 12 weeks of aerobic exercise in a comparable manner to those taking psychiatric medication. Other research has suggested that aerobic exercise reduces symptom severity among individuals with obsessive compulsive disorder, and a recent review of 11 studies comparing the effects of regular exercise with psychotherapy for depression revealed that two to four sessions of exercise per week was just as effective in treating depression as psychotherapy. Furthermore, although most professionals recommend regular involvement in an exercise regimen to maximize benefits, research suggests that even a single bout of aerobic exercise or weightlifting can reduce perceived stress levels and improve mood. It appears that exercise is medicine!

Healthy Eating

When experiencing high levels of stress, research suggests that many people change their eating patterns. One of the most common dietary changes associated with stress involves the increased consumption of caffeine in an effort to improve early morning or late night productivity. Ironically, although caffeine is associated with short term increases in alertness, caffeine can also exacerbate the stress response. For example, caffeine stimulates the body to release various stress hormones, including cortisol and glucocorticoids, as well as catecholamines, which include epinephrine (adrenaline), norepinephrine, and dopamine. The release of these chemicals is associated with heightened levels of stress for hours after

ingestion. In addition, caffeine consumption can lead to other conditions that can affect the body's ability to respond to stress, including insomnia, hypertension, increased risk of heart disease, gastrointestinal problems, and immune system suppression, making you more prone to infections.

As noted earlier, high levels of stress are also associated with increases in cortisol, which tend to lead to cravings for high fat or sugary foods. In addition, when busy, people often resort to skipping meals or eating fast foods. These dietary changes can actually make it more difficult for our bodies to manage stress.

Eating a healthy diet full of nutrient rich foods can help you mange stress in several ways. For example, complex carbohydrates, like oatmeal and whole grain breads and cereals, cause your brain to release Serotonin, a neurotransmitter associated with positive mood. Even simple carbohydrates, such as candy or chocolate can be good for a quick spike in Serotonin. Research suggests that foods rich in Vitamin C (e.g., oranges) and Omega-3 fatty acids (e.g., salmon) can help reduce levels of stress hormones and improve immune functioning. A well balanced diet improves one's ability to manage stress.

BIHER

SLIMS

Adequate Sleep

Research suggests that the relationship between stress and sleep is bidirectional in that high levels of stress tend to be associated with impaired sleep, and lack of sleep tends to exacerbate the experience of stress. Numerous studies have indicated that excessive stress tends to lead to diminished ability to fall and stay asleep, increased rate of nightmares, and poorer sleep quality. In addition, various emotional disorders associated with stress and anxiety, such as posttraumatic stress disorder and generalized anxiety disorder, are often associated with significant sleep disruption. On the other hand, lack of sufficient sleep often leads to suboptimal physiological and psychological functioning. For example, sleep deprived individuals report higher levels of stress, anxiety and anger in response to even low-level psychological demands. Further, some evidence suggests that sleep deprivation affects cortisol (a stress hormone) levels, and neuroimaging studies indicate that sleep deprivation is associated with impaired neurological functions, including increased amygdala (part of the brain associated with emotional responses) reactivity and pre-frontal control regions of the brain. In addition, considerable evidence indicates that poor sleep is associated with poorer immune functioning. Epidemiological research suggests that most individuals require 7 to 8 hours of sleep nightly to obtain the maximum physiological and psychological benefits

from sleep.

Relaxation, Mindfulness, and Meditation

Relaxation, or easing of physical or mental stress, is often thought to be the antidote to stress. Relaxation and anxiety are thought to be opposing emotions, in that one cannot be relaxed and anxious at the same time. Indeed, the achievement of a state of relaxation during a period of stress is often a challenging task. However, a variety of techniques have been devised with the intention of helping one to reach a state of relaxation, several of which have demonstrated reliable efficacy in psychological research: Diaphragmatic breathing, progressive muscle relaxation, guided imagery, and meditation exercises. Diaphragmatic breathing, or deep abdominal breathing, is a technique designed to slow one's breathing and regulate oxygen intake. Diaphragmatic breathing involves taking slow, deep breaths with the intention of expanding and contracting the diaphragm, which is a muscle separating the chest and abdominal cavities. Typically, diaphragmatic breathing exercises involve sitting in a comfortable chair or lying down and taking slow, deep breaths with the intention of breathing so that the air expands the abdomen more than the chest.

Research suggests that practicing diaphragmatic breathing can significantly reduce perceived stress. In one study, a sample of medical school students

participated in a deep breathing program for 5 minutes per day prior to class over a 10-month period. After six weeks, students engaging in the deep breathing exercises reported significantly less test anxiety, self-doubt, nervousness and increased concentration during exams.

Progressive muscle relaxation (PMR) refers to a series of techniques that involves the repeated tensing and relaxing of various muscle groups in the body. Often, deep breathing is integrated, whereby an individual undergoes a deep breathing exercise while also tensing and relaxing muscle groups. The goal of PMR is to affect the autonomic arousal component of stress and anxiety via a reduction in skeletal muscle tension. It is believed that as skeletal muscle tension diminishes, other aspects of autonomic arousal, such as blood pressure and heart rate, also decrease. Although the original progressive muscle relaxation paradigm was extremely time-intensive (i.e., involving nearly 30 muscle groups and as many as 100 individual practice sessions carried out over months or years), subsequent research has suggested that comparable effects can be generated with far fewer sessions. Similar to diaphragmatic breathing, PMR sessions typically involve assuming a comfortable position and taking deep breaths while tensing and relaxing 16 different muscle groups (e.g., starting with the head muscles and working down the body before ending with

the feet). As part of the Personal Discovery Assessment (PDA) within this module, you will have the opportunity to experience PMR for yourself.

Guided imagery, or visualization, refers to a type of relaxation training that involves the use of language to create calming, sensory rich experiences in one's imagination. Although guided imagery techniques can vary widely, most involve guiding an individual toward places or situations in which they feel calm and comfortable, and individuals are encouraged to free their minds of any interfering thoughts or daily concerns. For example, a session might consist of having an individual imagine that they are sitting on a quiet beach on a perfect weather day or in the woods next to a gentle flowing stream. Research suggests that guided imagery techniques are effective in reducing stress and enhancing positive mood states. Guided imagery has also been shown to enhance feelings of well-being and calmness among individuals with a variety of chronic diseases.

Similar to diaphragmatic breathing, meditation exercises combine focusing on a specific object or sensation (such as breathing) while disengaging from other distracters and regulating internal experiences (i.e. emotions, thoughts) through non-judgmental acceptance. Research suggests that meditation is negatively correlated with perceived stress and decreases in serum Cortisol levels (a stress

hormone). Further, meditation is positively associated with a variety of relaxation markers, such as reduced skeletal muscle metabolism, higher skin resistance, decreased heart rate, and increased alpha wave activity. It is also associated with enhanced sociability, empathy, and positive thinking.

In sum, a variety of relaxation exercises have been shown to reduce stress and improve emotional well-being. Whether it is diaphragmatic breathing, PMR, guided imagery, meditation, or a host of others not discussed here, it only takes a few minutes per day to improve stress levels.

Laughter, Self-Expression, and Social Support

It has long been said that, "laughter is the best medicine." Indeed, we now know that laughter produces many positive physiological and psychological changes in the body. Research indicates that laughter increases oxygen intake and stimulates various muscles and organs, including the heart and lungs. Laughter also reduces blood pressure and blood sugar levels, increases blood flow, and improves energy levels. In addition, laughter causes the release of endorphins, which can increase pain tolerance and induce feelings of euphoria. Humor provides a psychological distance from the current state and enables us to replace our negative appraisals with more positive ones. In fact, some research suggests that laughter may be as effective as mild aerobic exercise or relaxation training at improving mood.

Suppressing negative feelings can increase stress, and, in turn, be detrimental to one's health. However, research suggests that expressing negative emotions in an adaptive and socially acceptable manner can serve to reduce stress and improve immune function. For example, one study found that a sample of international students who wrote about their most traumatic or stressful experiences for 20 minutes per day over three days reported significantly less stress at the end of the study than their counterparts who wrote on neutral topics. The physical and psychological benefits of disclosure are not limited to writing. Talking about emotionally disturbing or traumatic events has also been shown to reduce anxiety, stress, and dysphoria. In fact, one of the most effective forms of psychological treatment for stress disorders involves intentionally recalling and talking about traumatic events repeatedly until the recollection of the event is less distressing. Much like humor, emotional disclosure allows an individual to step back and gain perspective on the stressful event and can transform how the individual views and makes sense of the situation.

A strong social support system is also helpful when coping with stress. Research suggests that the strength of one's social support network is a predictor of health and is negatively associated with many mental health problems. In contrast, loneliness is associated with a variety of health problems, including high blood

pressure, and lonely individuals have more stressful experiences and are more likely to assess situations as stressful. Researchers theorize that higher levels of perceived stress may explain the poorer health conditions of lonely individuals. Further, they have found that loneliness mediates the relationship between social support and health. Loneliness is best protected against with the quality, or closeness, of relationships over quantity, or number of relationships. Thus, effort should be put towards meaningful relationships rather than countless peripheral ones.

Cognitive Restructuring

Often, we presume that the events that we experience have a direct effect on our emotions. For example, finding out that you made a poor grade on an exam or that your partner wants to break up with you CAUSES you to feel sad. However, it is not the event itself that leads to the emotion. Rather, it is the meaning that you give to the event or your interpretation of the situation that determines the event's emotional impact. If you interpret the poor grade to mean that you are not very intelligent or that you will never succeed in school no matter how hard you try, you will likely experience depressed mood. In contrast, if you interpret the grade as a fluke or the wake-up call you have needed to enhance your motivation for school, your mood will likely be much less negative.

As you can see, the way that we perceive or think about a situation or event can

dramatically affect the emotions we experience. Cognitive restructuring involves learning to recognize the irrational or maladaptive thoughts we experience that contribute to negative mood states and then altering them to more accurately reflect the situation. For example, if you are preparing for a presentation, and you repeatedly think, "I know I'm going to say something stupid, and everyone will laugh at me" or "Everyone is going to be able to see how anxious I am, and they will think I'm an idiot", you will likely be fairly anxious. However, are these rational thoughts? Unless you are particularly adept at foretelling the future (in which case, I would appreciate some help selecting my lottery numbers!), these thoughts are likely examples of catastrophizing thoughts, which serve to increase anxiety. Although it is possible that you will say something stupid, what are the chances if you thoroughly prepare and rehearse your presentation? How many times have you given a presentation in the past and NOT said anything stupid? Even if you do say something that does not sound particularly intellectual, is it possible that some, most, or all of the people in the class might not notice or think negatively about you? If people do notice your anxiety, is it possible that they might interpret it in a different way than assuming you're "an idiot?" Might some people not have empathy for you considering that public speaking is one of the greatest fears among college students? After challenging the irrational or maladaptive thoughts in this manner, it is important to select a rational alternative to

substitute. A more rational alternative to the first assumption might be, "If I prepare well and know what I am going to say in advance, I will probably do a fine job of delivering the presentation." For the second statement, you might substitute, "most people will be anxious when they present, and even if they do notice my anxiety, they will probably be able to relate to it."

Research suggests that cognitive restructuring or learning to recognize maladaptive thoughts and change them to reflect more adaptive, rational thought patterns can significantly improve mood, reduce stress, and decrease negative emotions.

Key Terms

Cognitive restructuring

A technique that involves the identification, challenging, and replacement of irrational or maladaptive thoughts with more rational, adaptive, or positive thoughts.

Diaphragmatic breathing

A relaxation technique consisting of deep abdominal breathing designed to expand and contract the diaphragm, slow breathing, and regulate oxygen intake.

Fight-or-flight response

Activation of the sympathetic nervous system that occurs in response to a stressor

and prepares the organism for dealing with a stressor.

Guided imagery

A relaxation technique involving the use of language to create calming, sensory rich experiences in one's imagination.

Homeostasis

A return to equilibrium following activation of the stress response system.

Meditation

A relaxation technique that combines focusing on a specific object or sensation while disengaging from other distracters and regulating internal experiences through non-judgmental acceptance.

Progressive muscle relaxation (PMR)

A relaxation technique involving the repeated tensing and relaxing of various muscle groups throughout the body.

Stress

Emotional, cognitive, behavioral, and physiological reactions a person experiences in response to environmental threats or demands.

Stress hormones

Hormones, including Cortisol and Norepinephrine, that are released by the body during a fight-or-flight response.

Stressor

Any event or stimulus that causes stress.

Yerkes-Dodson Law

Law dictating that physiological and mental functioning is optimal at mild to moderate levels of arousal, but diminishes as arousal becomes extreme (high or low)

A Prescription for Stress Management

To maximize your ability to cope with stress, try the following:

1. **Exercise Regularly**. Engage in 3-5 sessions of moderate intensity exercise each week to enhance your immune system and reduce your risk of developing anxiety and mood disorders. However, even if you cannot exercise regularly, remember that even a single episode of exercise can be a great way to relieve stress and improve mood.

2. **Eat a Healthy Diet**. Eat plenty of fruits, vegetables, whole grains, and fatty fish to maximize your physical health and your body's ability to manage stress.

3. **Sleep**. Get 7-8 hours of uninterrupted sleep per night to improve your mood and boost your immune functioning.

4. **Practice Relaxation**. Engage in relaxation exercises on a regular basis or during periods of moderate to high stress. Progressive muscle relaxation (PMR), guided imagery, and meditation are great ways to reduce your overall level of arousal. Or, combine exercise with meditation or mindfulness by engaging in yoga two to three times per week!

5. **Express Yourself**. Look for the humor in stressful situations, and find ways to express your emotions through writing, art, or talking with friends and family.

6. **Reframe**. Attend to the ways in which you think about and interpret stressful situations and look for opportunities to reframe the situation in a more rational or positive manner. Remember, the test at the end of this chapter is not something to be feared. Instead, it represents an opportunity for you to demonstrate how much you have learned about stress and stress management!

VALUE ADDED COURSE

Certificate Course in Stress Management and PHYC01

List of Students Enrolled: September 2021 – December 2021

1st Year MBBS Student			
Sl. No	**Name of the Student**	**Registration number**	**Signature**
1	GOWTHAM. M .R	U15MB291	
2	GOWTHAM.S	U15MB292	
3	HARIHARAN.S	U15MB293	
4	HARINI .L	U15MB294	
5	ILAMATHI.S	U15MB295	
6	ILAYARAJA .B.U c	U15MB296	
7	JAMZER. J	U15MB297	
8	JANARTHANAM. M	U15MB298	
9	JANISHA MARAGATHA J P	U15MB299	
10	JAWATH. S	U15MB300	
11	JAYA AKSHAIY. J	U15MB301	
12	JAYABHARATHI .M	U15MB302	
13	JAYAMATHI .A	U15MB303	
14	KAILASAM .S	U15MB304	
15	KAMESHWARAN.G	U15MB305	
16	KARUNYA JOSEPHINE .A	U15MB306	
17	KASANKANTH .V	U15MB307	
18	KATHIRAVAN.G	U15MB308	
19	KAVIN SHANMUGAVEL .R	U15MB309	
20	KEERTHIGA .S.P	U15MB310	

Goutham. S.
U15MB292

Certificate Course in Stress Management Course (Code: PHYC01)

MCQ's (Marks:25 marks)

20/25

Q1. Which of the following statements is true?
1. In small quantities, stress is good
2. Too much stress is harmful
3. All stress is bad
4. Only '1' & '2' are right ✓

Q2. Stress management is about learning
1. How to avoid the pressures of life
2. How to develop skills that would enhance our body's adjustment when we are subjected to the pressures of life
3. Both '1' & '2' are true ✓
4. None of the above

Q3. Which of the following statements is true about stress management?
1. Stress management is learning about the connection between mind and body
2. Stress management helps us control our health in a positive sense
3. Stress management teaches us to avoid all kinds of stress
4. Only '1' & '2' are right ✓

Q4. Which of the following are the basic sources of stress
1. The Environment
2. Social Stressors
3. Physiological
4. Thoughts
5. All of the above ✓

Q5. Examples of environmental stressors are
1. Weather
2. Traffic
3. Financial problems
4. Substandard housing
5. Only '1' , '2' & '4' are right ✓

Q6. Examples of social stressors are
1. Financial problems

Q12. The following are the examples of positive stressors

1. New job
2. Having a child
3. Buying a home
4. All of the above

Q13. Which of the following statements is true?

1. Habitual behaviour patterns like over scheduling, procrastination, etc. Can cause negative stress
2. Thoughts like fear, worrying about future etc. can cause negative stress
3. Both '1' & '2' are true
4. None of the above

Q14. Which of the following are the physical symptoms of anxiety

1. Racing heart
2. Sweaty palms
3. Flushed cheeks
4. All of the above

Q15. What are the behavioural reactions to anxiety?

1. Avoiding situation where there are chances of experiencing anxiety
2. Escaping situations when feelings of anxiety begin
3. Both '1' and '2' are true
4. None of the above

Q16. Anxiety can cause the following moods

1. Irritable
2. Nervous
3. Panicky
4. Anxious
5. All of the above

Q17. What thoughts come to the mind when you're under negative stress

1. You think that you can cope with the situation
2. You think that you cannot cope with the situation
3. You think that everything will get fine eventually

4. All of the above

Q23. What are the questions you need to ask yourself while you are assessing yourself for stress

1. Where do you feel stress in your body
2. How do you know when you are stress
3. How do you react to stress
4. All of the above

Q24. Who was the first to describe the "fight or flight response?"

1. Walter B. Cannon
2. Sigmund Freud
3. Atkinson Potter
4. Mrunal Sengupta

Q25. Which of the following are true in relation to Relaxation Response

1. It is a physical state of deep rest
2. Eliciting this reduces your metabolism
3. Eliciting this reduces your blood pressure
4. All of the above

Mark awarded : 20/25

Name of the Assessor : Dr. R. Vijayakumar

Signature of the Assessor :

Harini. L. U15MS294

Certificate Course in Stress Management Course (Code: PHYC01)

MCQ's (Marks:25 marks)

19/25

Q1. Which of the following statements is true?
1. In small quantities, stress is good
2. Too much stress is harmful
3. All stress is bad
4. Only '1' & '2' are right

Q2. Stress management is about learning
1. How to avoid the pressures of life
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Marks awarded: 19/25

Name of the Assessor : DR. V. Anbarasy

Signature of the Assessor :

Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research
(Deemed to be University under section 3 of the UGC Act 1956)

CERTIFICATE OF MERIT

This is to certify that Ilamathi. S has actively participated in the Value Added Course on Stress management held during September 2021 - December 2021 Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry-605 502, India.

R. Vijayakumar
Dr. R. Vijayakumar
RESOURCE PERSON

VSK
Dr. V. Senthilkumar
COORDINATOR

Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research

(Deemed to be University under section 3 of the UGC Act 1956)

CERTIFICATE OF MERIT

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R. Vijayakumar

Dr. R. Vijayakumar
RESOURCE PERSON

VSK

Dr. V. Senthilkumar
COORDINATOR

Student Feedback Form

Course Name: Certificate course in stress management.

Subject Code: PHY C01

Name of Student: Jayabharathi. M Registration Number: U15ME302

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

Sl. NO	Particulars	1	2	3	4	5
1	Objective of the course is clear			✓		
2	Course contents met with your expectations				✓	
3	Lecturer sequence was well planned					
4	Lectures were clear and easy to understand			✓		
5	Teaching aids were effective				✓	
6	Instructors encourage interaction and were helpful			✓		
7	The level of the course				✓	
8	Overall rating of the course	1	2	3	(4)	5

** Rating: 5 – Outstanding; 4 - Excellent; 3 – Good; 2– Satisfactory; 1 - Not-Satisfactory*

Suggestions if any:

Excellent sessions on Stress management.

Date: 10/12/2021

Jaya
Signature

Student Feedback Form

Course Name: Certificate course in stress management.

Subject Code: PHY C01

Name of Student: Kasankanth.V Registration Number: U15MB307

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

Sl. NO	Particulars	1	2	3	4	5
1	Objective of the course is clear			✓		
2	Course contents met with your expectations				✓	
3	Lecturer sequence was well planned					
4	Lectures were clear and easy to understand			✓		
5	Teaching aids were effective				✓	
6	Instructors encourage interaction and were helpful			✓		
7	The level of the course				✓	
8	Overall rating of the course	1	2	3	(4)	5

** Rating: 5 – Outstanding; 4 - Excellent; 3 – Good; 2– Satisfactory; 1 - Not-Satisfactory*

Suggestions if any:

We want more advance courses on stress management

Kasankanth
Signature

Date: 10/12/2021

Date: 20.12.2021

From
Dr.V.Senthil kumar
Professor and Head,
Physiology
Sri Lakshmi Narayana Institute of Medical sciences
Puducherry

To
The Dean,
Sri Lakshmi Narayana Institute of Medical sciences
Puducherry
.

Through Proper Channel

Sub: Completion of value-added course: Certificate course in Stress management & Code: PHY C01

Dear Sir,

With reference to the subject mentioned above, the department has conducted the value-added course titled: Certificate course in Stress management & Code: PHY C01 from September 2021– December 2021. We solicit your kind action to send certificates for the participants that is attached with this letter. Also, I am attaching the photographs captured during the conduct of the course.

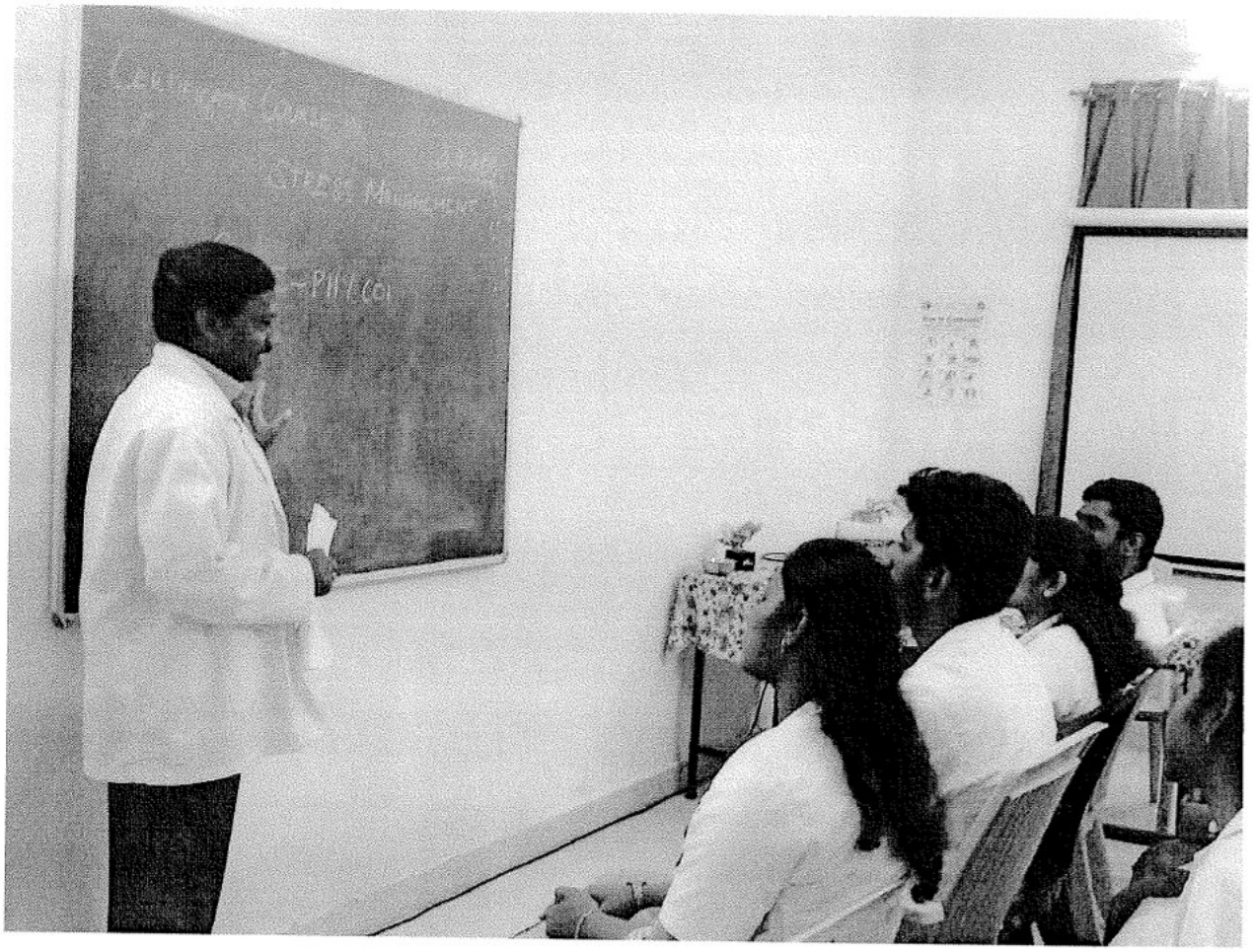
Kind Regards

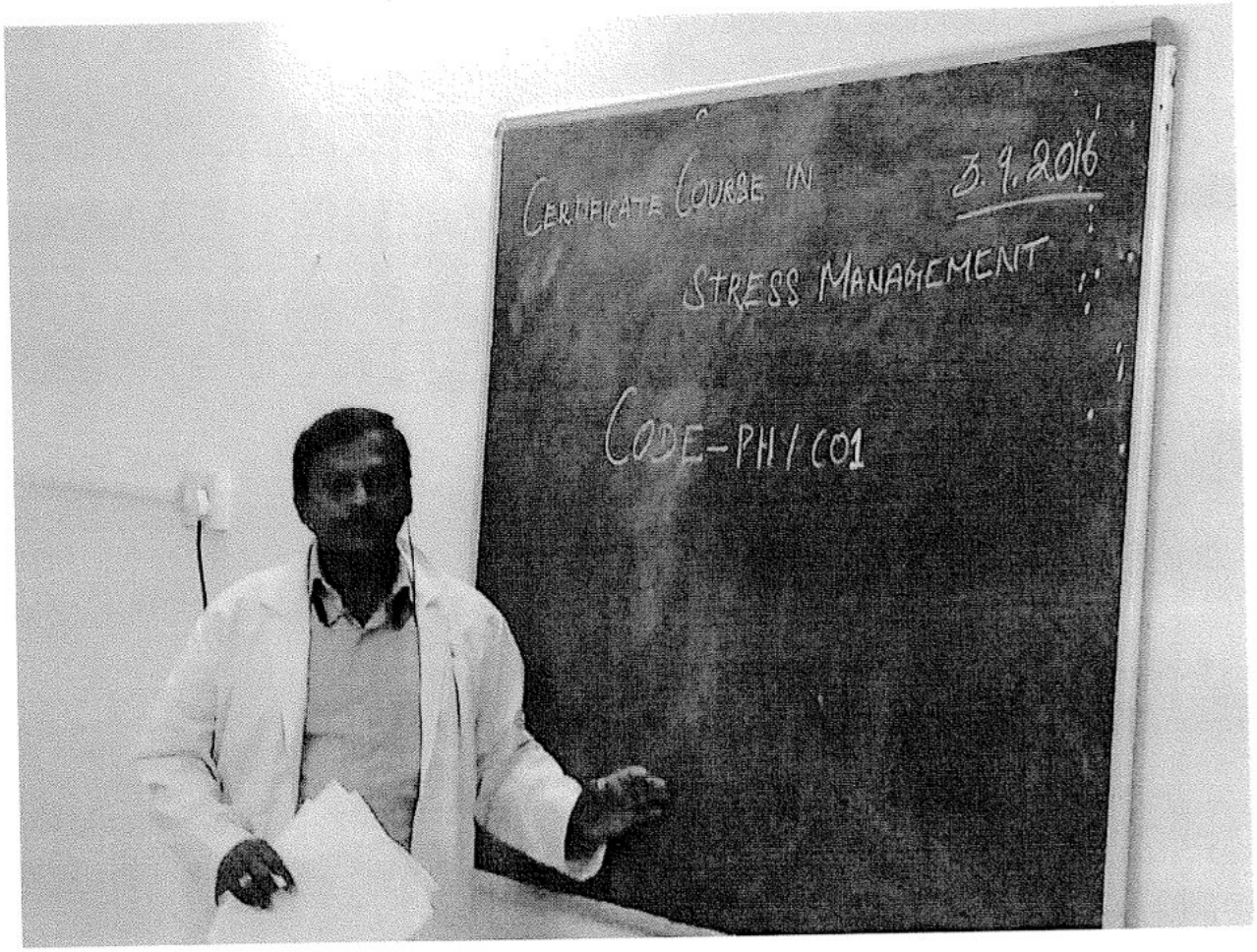
VSK
Dr.V.Senthil kumar
HOD Physiology

PROFESSOR & HOD
DEPARTMENT OF PHYSIOLOGY
Sri Lakshmi Narayana Institute Of Medical Sciences
PONDICHERRY - 605 502.

Encl: Certificates

Photographs




CERTIFICATE COURSE IN
3.9.2016
STRESS MANAGEMENT
CODE-PHY/C01