STRESS MANAGEMENT PROGRAM FOR HEALTHCARE PROVIDERS IN A HEALTHCARE SETTING

by

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AN ABSTRACT OF THE PROJECT OF

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Title: Stress Management Program for Health Care Providers in a Healthcare Setting

Health care providers; physicians and nurses, face tremendous occupational and academic challenges while working to meet many expectations imposed on them by patients and administrators. Some of these challenges include interacting with patients, coping with emotional issues related to illness or death, coordinating with other health professionals, feeling undervalued or unsupported, inconsistencies between some aspects of medical or nursing education and clinical practice, and problematic scheduling associated with shiftwork.

Under these conditions, a doctor or nurse may experience stress whose effects may include both immediate and long-term emotional, physical, or psychological problems. These effects are detrimental, not only to the health professionals; but also to patients and the health system as a whole.

In light of the significant stress and the deleterious consequences of this stress on their lives, it seems important to seriously explore effective means of supporting them.

A Stress Management Program can be implemented in hospitals. Moreover, given that job burnout and distress have been significantly associated with decreased patient satisfaction and suboptimal self-reported patient care, incorporating stress management techniques such as cognitive restructuring, mindfulness; diaphragmatic breathing, progressive muscle relaxation, guided imagery and self-hypnosis are effective interventions for health care professionals which also have the potential to enhance patient care.
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Stress Management Program for Health Care Providers in a Healthcare Setting

Abstract

Health care providers; physicians and nurses, face tremendous occupational and academic challenges while working to meet many expectations imposed on them by patients and administrators. Some of these challenges include interacting with patients, coping with emotional issues related to illness or death, coordinating with other health professionals, feeling undervalued or unsupported, inconsistencies between some aspects of medical or nursing education and clinical practice, and problematic scheduling associated with shiftwork.

Under these conditions, a doctor or nurse may experience stress whose effects may include both immediate and long-term emotional, physical, or psychological problems. These effects are detrimental, not only to the health professionals; but also to patients and the health system as a whole.

In light of the significant stress and the deleterious consequences of this stress on their lives, it seems important to seriously explore effective means of supporting them. A Stress Management Program can be implemented in hospitals. Moreover, given that job burnout and distress have been significantly associated with decreased patient satisfaction and suboptimal self-reported patient care, incorporating stress management techniques such as cognitive restructuring, mindfulness; diaphragmatic breathing, progressive muscle relaxation, guided imagery and self-hypnosis are effective interventions for health care professionals which also have the potential to enhance patient care.
CHAPTER I

INTRODUCTION

A. Background

Stress can be defined as a state of threatened homeostasis or disharmony caused by intrinsic or extrinsic factors (Chrousos & Gold, 1992). Crucial functions of the stress system response are mediated by the hypothalamic-pituitary-adrenal (HPA) axis and the central and peripheral components of the autonomic nervous system (ANS) (Elenkov & Chrousos, 2006; Kyrou, Chrousos, & Tsigos, 2006). The principal effectors of the stress system include corticotropin-releasing hormone (CRH), arginine vasopressin (AVP), the glucocorticoids, and the catecholamines norepinephrine and epinephrine (Elenkov & Chrousos, 2006). The initiation of the adaptive stress response at the level of the hypothalamic-pituitary unit, where CRH and AVP are released into the hypophyseal portal system, mobilizes the anterior pituitary adrenocorticotropic hormone (ACTH) secretion. Circulating ACTH is the primary regulator of glucocorticoid secretion by the adrenal cortex. Glucocorticoids (cortisol or corticosterone) are the end hormonal products of the HPA axis that implement the initial activation of the stress system to reestablish the threatened body homeostasis. The integrity of this hormonal cascade and the precise regulation of its function are prerequisites for a successful response to any stressor (Tsigos & Chrousos, 2002). Stress-induced immune dysregulation has been shown to significantly affect the health system, including reducing immune responses, slowing wound healing, reactivating latent herpes viruses, such as Epstein-Barr virus (EBV), and enhancing the risk for more severe infectious diseases (Godbout & Glaser, 2006)
Thus, the acute activation of the stress system leads to adaptive behavioral and physical changes that result from these effectors and hormones. However, chronic stress represents a prolonged threat to homeostasis that affects the integrity of the HPA axis and the ANS and their precise interactions with other CNS components. This chronic activation of the stress system, in light of the various functions of the hormones involved in the stress response, may lead to manifestations that characterize a wide range of diseases and syndromes including metabolic syndrome, obesity, diabetes, coronary artery disease, and psychiatric disorders, as noted by epidemiologic studies that provided an association between exposure to stress and these diseases (de Kloet, Derijk, & Meijer, 2007; Kyrou et al., 2006; Steptoe & Kivimaki, 2012).

Health care professionals including physicians and nurses face nowadays tremendous challenges while working to meet many expectations imposed on them by patients and administrators (Arnetz, 2001; McNeely, 2005; Milliken, Clements, & Tillman, 2007). These challenges are not limited to occupational and academic reasons, but they also extend to include the personal issues of health care professionals themselves. Some of these challenges include interacting with patients, coping with emotional issues related to illness or death, coordinating with other health professionals, feeling undervalued or unsupported, inconsistencies between some aspects of medical education and clinical practice, and problematic scheduling associated with shiftwork (Benbassat, Baumal, Chan, & Nirel, 2011; Burch et al., 2009; Ferrell & Coyle, 2008; McManus, Keeling, & Paice, 2004). For nursing professionals, challenges are attributed to extended working hours, too much paperwork, having little power in physician-controlled work environment, relations with the head nurse, and dealing daily with pain and traumatic illness events (Aiken et al., 2001; Decker, 1997). The nursing shortage and its consequences have exacerbated the situation. Many hospitals
have high patient-to-nurse ratios, which put the nurses at higher risk of job dissatisfaction and even burnout (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Shirey, 2006; Toh, Ang, & Devi, 2012).

**B. Significance**

The causes of stress for health care professionals are not limited to the challenges just mentioned. Medical institutions and health organizations are also trying to reduce spending and thus expect health professionals to deliver care efficiently and economically. They are working with less manpower, thus increasing the demands on each health professional. Moreover, health professionals may experience any kind of physical and behavioral changes of daily life as manifestations of stress, including fatigue, headaches, back pain, sleeplessness, loss of energy, muscle tension, and family conflicts (Stenberg, Ruland, & Miaskowski, 2010).

Under these conditions of work facing health care professionals, an individual may experience stress whose effects may include both immediate and long-term emotional, physical, or psychological problems. These effects are detrimental, not only to health professionals, but also to patients and the health system as a whole. Health care providers experience this stress that can alter their interactions with patients and colleagues; a stress that may manifest through irritability, nervousness, lack of enthusiasm, pessimism, or even anger. The health care provider often shows negative behavioral changes, including loss of concern for patients while treating them in a detached manner, increasing pessimism about one’s work, frequent irritability with patients and colleagues, and loss of creativity (Arnetz, 2001; Tsai & Liu, 2012). Typically, the quality of care of patients declines, which can be distressing to patients, as they are likely to expect their caregivers to provide them with information and respond to them with reassurance, friendliness, and support.
When coping skills are not provided for health professionals, burnout may occur as was noted in studies of critical care nurses (Epp, 2012). In one study, 40% of hospital nurses in the United States were found to have levels of dissatisfaction and burnout that were higher than in other groups of workers; only 10% of professional workers and 15% of workers in general reported dissatisfaction with their jobs (Aiken et al., 2001). Burnout is defined as a syndrome of depersonalization, emotional exhaustion, and a sense of low personal accomplishment. Reported causes of burnout include the health professional’s perceived inability to meet his or her own high expectations for patients’ health outcomes, work overload, role stress, and the feeling that one’s training and capabilities are not being utilized. Burnout adversely affects work performance and productivity in several ways. The professional will lose effectiveness in the treatment of patients due to his or her decline in emotional state (Leiter, Harvie, & Frizzell, 1998). This is eventually communicated to patients and subsequently influences the progress of management. Professionals experiencing burnout also have higher rates of absenteeism and turnover. The resulting frequent changes in primary care providers disturb patients’ treatment programs.

Stress also may lead to increased burnout (Spickard, Gabbe, & Christensen, 2002). A recent study found that burnout was significantly associated with suboptimal self-reported patient care (Shanafelt, Bradley, Wipf, & Back, 2002). Over a decade ago, training programs have identified these problems and called for change, advocating better care for health professionals (Butterfield, 1988). Despite this call for change, dissatisfaction and distress have continued to increase. For example, a study of U.S. physicians showed a decline in satisfaction with every aspect of their professional life from 1986 to 1997 (Murray et al., 2001). It is clear that health care professionals need support in addressing the numerous stressors inherent in their work.
In summary, stress experienced at work affects the professional; who in turn interacts with his or her environment, consisting of colleagues, patients and their families. This environment is thereby impacted by the professional’s reaction to stress. This makes it essential that health professionals be equipped with stress management and coping skills that will enable them to overcome, tolerate, or minimize the negative aspects of the stressful situations that are inherent in their positions.

The American University of Beirut Medical Center is a tertiary care center that caters to patients from all over Lebanon. The patient turnover is high, which places a big burden over health providers, especially in ambulatory settings. For example, in the family medicine department, doctors and nurses are overwhelmed with the workload which includes all university employees (HIP), private and OPD patients; in addition to other hospital consultations.

The aim of this project is to develop a stress management program that can be implemented to decrease the consequences of work stress on the lives of nurses and physicians, which will eventually reflect on an enhanced patients’ care and satisfaction. Other aims are to increase self-compassion and self-care in nurses and physicians; hence, improving their work satisfaction. The stress management program is also proposed to improve the personal health of nurses and increase long term retention in the nursing field.
CHAPTER II
LITERATURE REVIEW

Caregiving is regarded as a chronically stressful process with potentially negative psychological and physical consequences. Health care providers; physicians and nurses, experience high levels of occupational stress as a result of heavy workloads, extended working hours and time-related pressure. There is substantial evidence that the stress inherent in health care negatively affects doctors and nurses. Stress can lead to increased psychological vulnerability, anxiety, and depression (Cora, Partinico, Munafo, & Palomba, 2012; Schindler et al., 2006; Tyssen, Vaglum, Gronvold, & Ekeberg, 2001), decreased job satisfaction and increased work strain (Blegen, 1993; Fiabane, Giorgi, Musian, Sguazzin, & Argentero, 2012; Flanagan & Flanagan, 2002; Schindler et al., 2006), disrupted personal relationships (Gallegos, Bettinardi-Angres, & Talbott, 1990), and even suicide (Hawton, Clements, Sakarovitch, Simkin, & Deeks, 2001; Richings, Khara, & McDowell, 1986). Stress also may harm professional effectiveness as it was found to reduce concentration (Askenasy & Lewin, 1996), reduce providers’ abilities to establish strong relationships with patients (Rosenstein & O'Daniel, 2008), and can lead to a decrease in work performance and in the quality of care offered (Fiabane et al., 2012).

Consequences of occupational stress among health care providers

Schindler and colleagues examined whether work-related stressors in academic medicine negatively affected the physical and mental health, as well as life and job satisfaction, of academic medical school faculty (Schindler et al., 2006). A 136-item self-administered anonymous questionnaire was distributed to faculty members at four U.S.
medical schools. Twenty percent of faculty had significant levels of depressive symptoms, with higher levels in younger faculty. Perception of financial instability was associated with greater levels of work strain, depression, and anxiety. Significant numbers of faculty acknowledged that work-related strain negatively affected their mental health and job satisfaction, but not life satisfaction or physical health (Schindler et al., 2006). Stress among doctors might even lead to higher rate of suicide. Hawton and coworkers found that female doctors were at an increased risk of suicide (Hawton et al., 2001). A recent study was intended to explain the relationships between occupational stress and some psychopathological dimensions in a sample of health professionals (Iliceto et al., 2013). The investigated group included 156 nurses and physicians, 62 males and 94 females, who were administered self-report questionnaires to assess occupational stress, temperament and hopelessness. The findings showed a strong direct influence of variables such as work dissatisfaction, absence of type A behavior, and especially external locus of control, psychological and physiological distress on latent variable psychopathology. So work-related stress was among the causes of health professionals’ psychopathological problems (Iliceto et al., 2013).

The hazards associated with the prolonged hours worked by resident physicians and interns have been documented. In a prospective study, depressed residents made 6.2 times as many medication errors per resident month as did their non-depressed peers (Fahrenkopf et al., 2008). Medication errors among nurses are also partly attributed to stress (Deans, 2005). The work that nurses perform in hospital environments is physically and psychologically intense.
**Predictors of stress in health care professionals**

A cross-sectional study was conducted to explore the work-related stress and risk factors of nurses in psychiatric institutions in Taiwan (Shen, Cheng, Tsai, Lee, & Guo, 2005). Seventeen percent of nurses reported being often or always under significant stress. Perceived occupational stress was associated with young age, widowed/divorced/separated marital status, high psychological demand, and low workplace support. The study concluded that nurses in psychiatric institutions are under significant stress related to work factors such as work shift and low workplace social support. Another group of investigators found that high rates of emotional exhaustion in psychiatric nurses were predicted by young age, high psychological demands paired with low social support in the workplace, occupational demand and job strain (Leka, Hassard, & Yanagida, 2012). This stressful environment is not limited to experienced nurses, but it also extends to include newly graduated nurses who encounter stressful challenges transitioning from student (graduate) to the professional registered nurse in the workforce (Wu, Fox, Stokes, & Adam, 2012).

**Intervention studies on stress management**

Knowing all these physical and psychological effects of stress on the life of doctors and nurses, it is imperative that stress management strategies are implemented to help those professionals cope with and restore their normal function in life and at work. Interventions can reverse or reduce the detrimental effects of stress. Several studies have addressed this effort with promising outcomes (Bourbonnais, Brisson, & Vezina, 2011; Goodman & Schorling, 2012; Prasad, Wahner-Roedler, Cha, & Sood, 2011; Rickard et al., 2012; Sood, Prasad, Schroeder, & Varkey, 2011). A study assessed the long-term effects of a workplace intervention aimed at reducing adverse psychosocial work factors and mental health problems among health care professionals in an acute care hospital (Bourbonnais et al., 2011). Three
years after the intervention which included cognitive restructuring, breathing and relaxation exercises, all adverse psychosocial factors except one were reduced, and the improvement was statistically significant for 5 out of 9 factors: psychological demands, effort-reward imbalance, quality of work, physical load and emotional demands. In addition, all health indicators improved and 2 out of 5 significantly: work-related and personal burnout. These results support the long-term effectiveness of the interventions given that significant improvement in psychosocial factors and health problems (Bourbonnais et al., 2011). Sood and colleagues conducted a study to assess the effect of a stress management program for increasing quality of life, and decreasing stress and anxiety among physicians at a tertiary care medical center in the United States (Sood et al., 2011). Forty physicians were randomized in a wait-list controlled clinical trial to either the stress management program intervention or a wait-list control group for 8 weeks. The intervention involved a single 90 minute session training in the stress management program. Primary outcome measures assessed at baseline and week 8 included the Connor Davidson Resilience Scale (CDRS), Perceived Stress Scale (PSS), Smith Anxiety Scale (SAS) and Linear Analog Self Assessment Scale (LASA). Thirty-two physicians completed the study. A statistically significant improvement in resiliency, perceived stress, anxiety, and overall quality of life at 8 weeks was observed in the study arm compared to the wait-list control arm (Sood et al., 2011).

Another pre-post observational study conducted in a university medical center aimed to determine if a continuing education course based on mindfulness-based stress reduction could decrease burnout and improve mental well-being among healthcare providers, from different professions (Goodman & Schorling, 2012). A total of 93 healthcare providers, including physicians from multiple specialties, nurses, psychologists, and social workers who practiced in both university and community settings, participated. The intervention was a
continuing education course based on mindfulness-based stress reduction that met 2.5 hours a week for 8 weeks plus a 7-hour retreat. The classes included training in four types of formal mindfulness practices, including the body scan, mindful movement, walking meditation and sitting meditation, as well as discussion focusing on the application of mindfulness at work. The course was offered 11 times over 6 years. The main outcome measures were work-related burnout as measured by the Maslach Burnout Inventory and self-perceived mental and physical well-being as measured by the SF-12v2. Maslach Burnout Inventory scores improved significantly from before to after the course for both physicians and other healthcare providers for the emotional exhaustion (p < 0.03), depersonalization (p < 0.04), and personal accomplishment (p < 0.001) scales. Mental well-being measured by the SF12v2 also improved significantly (p < 0.001). There were no significant changes in the SF12v2 physical health scores (Goodman & Schorling, 2012).

The importance of addressing the problem of stress facing health care professionals through stress management programs has been realized and was actually implemented in many developed countries (Bourbonnais et al., 2011; Mackenzie, Poulin, & Seidman-Carlson, 2006; Sood et al., 2011).

In Lebanon, there is no data on whether stress management programs are being studied in the different health care facilities. It is also believed that there is a gap in addressing this problem. Health care providers are not equipped with the essential tools to face the everyday stressors at work. Hence, a stress management program for health care providers in Lebanon is essential. Many types of interventions are available to manage stress. They are discussed in the section below.
Stress management techniques

Mindfulness-based stress reduction (MBSR) is a viable option for providers and patients experiencing stress. It is considered one of the complementary and alternative medicine treatments that has gained popularity in the treatment of both mental and physical illness (Bohlmeijer, Prenger, Taal, & Cuijpers, 2010; Edenfield & Saeed, 2012; Hofmann, Sawyer, Witt, & Oh, 2010). MBSR was derived from ancient Buddhist and Yoga philosophies, and was westernized by Kabat-Zinn at the university of Massachusetts Medical Center in 1979 (Kabat-Zinn, 1982). MBSR is a structured therapy package. MBSR combines mindfulness-based meditation (MBM) with Yoga. The importance in MBSR has grown over the last two decades, and its effectiveness has been studied in a variety of populations including people with depression, cancer, heart disease, organ transplants as well as healthcare providers (Beddoe & Murphy, 2004; Bruce & Davies, 2005; Gross et al., 2010; Lengacher et al., 2009; Smith, Richardson, Hoffman, & Pilkington, 2005).

Yoga is an ancient Indian system of philosophy and practice. Hatha yoga is used in conjunction with MBM in MBSR. The postures are generally gentle and can be performed by individuals of varying fitness levels and disability. The concept behind Hatha yoga is that the mind is focused on the posture so it cannot be occupied with distracting thoughts (Raub, 2002). In the process of controlling the breath, flowing through and holding postures, and meditation, hatha yoga teaches direct practitioners to attend to body sensations and breathing and it would likely be beneficial for some musculoskeletal problems (Garfinkel & Schumacher, 2000; Luskin et al., 2000). Yoga is particularly helpful for people with somatic complaints as most participants experience some immediate increase in flexibility. Through body- and breath-control, including relaxation techniques, Hatha Yoga has additional benefits for cardiopulmonary endurance in healthy people (Birkel & Edgren, 2000; Ray et al., 2001), and possible benefits in patients with cardiopulmonary and cardiovascular diseases
Mindfulness involves attending to relevant aspects of experience in a nonjudgmental manner (Ludwig & Kabat-Zinn, 2008). This form of meditation requires no particular religious or cultural belief system. The goal of mindfulness is to maintain awareness moment by moment, disengaging oneself from strong attachment to beliefs, thoughts, or emotions, thereby developing a greater sense of emotional balance and well-being. The original idea of mindfulness in Buddhism was to alleviate suffering and promote compassion, which suggests a potential role for this practice with medical patients and practitioners (Huynh, Gotay, Layi, & Garrard, 2007). Thus, mindfulness may promote a more participatory medicine by engaging and strengthening an individual's internal resources for optimizing health in both prevention of and recovery from illness.

Evidence pointing to the medical benefits of meditation has been widely documented. The biologic correlates of meditation experience have received the most attention in research; however, research is only beginning to elucidate how the mind-body connection affects health in promoting wellness and managing and preventing disease. In a meta-analysis of brain imaging studies on various meditation styles, Newberg and Iversen suggested that the neurophysiologic effects derived from various meditation practices seem to outline a consistent and reproducible pattern of significant brain activity in key cerebral structures (Newberg & Iversen, 2003). Research focusing more specifically on these physiologic effects of meditation described a positive correlation between meditation practice and left-sided prefrontal cortex activity, which is associated with positive affect (Davidson et al., 2003). In this study, a short program in mindfulness meditation was associated with increases in antibody titers to influenza vaccine suggesting correlation among meditation, positive emotional states, localized brain activity, and improved immune function. Supporting
research shows a direct link between immune function and mood, with positive affective states resulting in stronger immune function and decreased incidence of illness (Hayney et al., 2003; Rosenkranz et al., 2003).

MBSR is a highly structured program consisting of an 8-week course in which participants meet once a week for a 2.5 hr session and one 8 hr day. Participants are given daily homework assignments of meditation, yoga, and inquiry exercises to increase their observation power (Kabat-Zinn, 1982). Participants are also taught to perform a body scan. A body scan is performed by first focusing attention on the breath and then on each section of the body. During a body scan, participants methodically think about each body part, observe their sensations, and then intentionally relax each body part. Participants are also taught sitting meditation in which their minds are guided to focus on the present and not to think about anything other than simply existing. Participants are instructed to incorporate meditation into their daily lives so that routine activities become a meditative practice (Kabat-Zinn, 1982). MBSR can be practiced in any quiet setting at any time. Participants are encouraged to set aside approximately 45 minutes per day to practice MBSR in addition to the classes. This entails doing MBM, yoga, and journaling to explore their thoughts and feelings. Participants are given CDs or audiotapes to guide them at home in meditation and yoga.

The applicability of mindfulness meditation was tested in primary care physicians reporting high levels of distress (Krasner et al., 2009). The objective was to determine whether an intensive educational program in mindfulness, communication, and self-awareness was associated with improvement in primary care physicians' well-being, psychological distress, burnout, and capacity for relating to patients. Seventy primary care physicians in Rochester, New York, were included in a continuing medical education (CME) course. The course included mindfulness meditation, self-awareness exercises, and narratives
about meaningful clinical experiences, appreciative interviews, didactic material, and discussion. An 8-week intensive phase (2.5 hours/week, 7-hour retreat) was followed by a 10-month maintenance phase (2.5 hours/mo). Over the course of the program and follow-up, participants demonstrated improvements in mindfulness, burnout, depersonalization, empathy, total mood disturbance, and personality. Improvements in mindfulness were correlated with reduction in total mood disturbance and burnout (Krasner et al., 2009).

The use of MBSR programs with the nursing population was also reported. In one study, the program was tested to investigate whether MBSR decreased burnout, and psychological distress, while increasing mindful awareness and attention among nurses in an academic-community-based hospital that employs 1400 nurses and has 835 beds (Cohen-Katz et al., 2005). The research design was a true experiment, pretest-posttest wait-list control group design with randomization. Both the treatment and wait-list control groups were measured prior to the intervention and immediately following the treatment group's completion of the intervention. The intervention consisted of an 8-week MBSR group, and it was modeled closely after Kabat-Zinn's MBSR program. The results of this study were promising and supported the hypothesis that MBSR is an effective strategy for reducing burnout. Comparing the treatment and wait-list control groups revealed that nurses showed significant reductions in emotional exhaustion and depersonalization, and a trend toward significance in their improvement in sense of personal accomplishment (Cohen-Katz et al., 2005).

Mackenzie and colleagues conducted a study to address the relative dearth of research on mindfulness training with non-clinical populations in general and practicing nurses and nurse aides specifically, and to describe and evaluate the efficacy of a brief version of the traditional MBSR program (Mackenzie et al., 2006). Nurses and nurse aides were recruited from long-term and complex continuing care units in a large urban geriatric teaching hospital
and were randomly assigned to intervention or wait-list control groups. Sixteen nurses and nurse aides completed the brief MBSR program and provided pre-intervention and post-intervention ratings. Fourteen control participants from the same care units completed outcome measures while on a wait-list for the program. In comparison with the wait-list control participants, participants in the mindfulness intervention experienced significant improvements in burnout symptoms, relaxation, and life satisfaction (Mackenzie et al., 2006). The results of this pilot study suggest that mindfulness training is promising method for helping those in the nursing profession manage stress.

MBSR is not the only stress management technique available for health care professionals, though it is the most studied and appears to be the most efficient. Examples of other stress management modalities are cognitive restructuring, comforting nutrition, relaxing exercises such as progressive muscle relaxation, diaphragmatic breathing, guided imagery and hypnosis.

Cognitive restructuring is a psychotherapeutic process of learning to identify and dispute irrational or maladaptive thoughts. Restructuring may take the form of direct discussion or guided discovery to question the validity of a thought or belief. Cognitive restructuring has been used to help individuals experiencing a variety of psychiatric conditions, including depression (Aguilera, Garza, & Munoz, 2010), anxiety disorders (Pull, 2007), sleep disorders (Gradiasar et al., 2011; Sharma & Andrade, 2012), and borderline personality disorders (Kellogg & Young, 2006). Less commonly, cognitive therapy has been applied as a stress management skill among nurses (Orly, Rivka, & Dorit, 2012) and physicians (Bragard et al., 2006) with promising outcome.

Nutrition can have a comforting effect on emotional experiences. Comfort foods are those that promote an emotionally pleasurable state. They may be classified as natural and homemade foods, including soups, vegetables, pasta, and steak. These are very helpful in
chronic stress conditions (Pecoraro, Reyes, Gomez, Bhargava, & Dallman, 2004; Tomiyama, Dallman, & Epel, 2011). These types of food were studied in terms of reduction in oxidative stress as well as work stress.

Diaphragmatic breathing or abdominal or deep breathing is marked by expansion of the abdomen rather than the chest when breathing. Diaphragmatic breathing is defined as a manipulation of breath movement, contributing to a physiologic response characterized by (a) the presence of decreased oxygen consumption, decreased heart rate and blood pressure, and (b) increased theta wave amplitude in EEG recordings, increased parasympathetic activity accompanied by the experience of alertness (Jerath, Edry, Barnes, & Jerath, 2006). Diaphragmatic breathing has been successfully used in the management of acute stressful tasks showing that the slow-breathing technique can have a significant effect on improvement of the hemodynamic changes following the acute stressful tasks (Nogawa, Yamakoshi, Ikarashi, Tanaka, & Yamakoshi, 2007).

Progressive Muscle Relaxation (PMR) is a technique for reducing stress and anxiety by alternately tensing and relaxing the muscles. PMR entails a physical and mental component by eliciting the relaxation response (Pawlow & Jones, 2002). These relaxation exercises have been adopted for the reduction of anxiety, pain, other stress symptoms and enhancing mental health (Carlson & Curran, 1994; Dodd & Wellman, 2000). The efficacy of relaxation exercises in enhancing the mental health status and in lowering of anxiety for nurse managers was documented previously, and this method has been encouraged to reduce psychological distress for nurses (Yung, Fung, Chan, & Lau, 2004).

Guided Imagery (GI) has been used successfully in stress reduction. It utilizes the subject’s imagination, and personalized images to promote health and reduce stress. The goal is to enable the subject to engage his/her own images that are symbolic of his/her specific health or life issues, in order to develop health-directed insights, health-promoting behavior
changes, or direct physiologic changes. A facilitated exploration of an image of a safe, comfortable place specific to the participant is involved, including sensory recruitment (visual, auditory, olfactory, tactile, and kinesthetic), particularly focusing on linking elements of relaxation in the image to the physiologically relaxed state simultaneously being experienced by the subject (Weigensberg et al., 2009).

Self-Hypnosis is designed to produce an overall physical relaxation. Previous studies of hypnotherapy have shown it to alleviate anxiety, relieve stress and pain, strengthen self-confidence and improve spirituality (Marcus, Elkins, & Mott, 2003; Valente, 2006). Studies have also shown that hypnosis may be a valuable stress management option for nurses (Airosa et al., 2011).

It seems important to seriously explore effective means of supporting health care professionals due to their stress and its consequences on their lives. An integrative program which constitutes multiple evidence-based techniques can be adopted and implemented in hospitals.
CHAPTER III

Theoretical Framework

The stress management program for health care providers is based on the Cognitive-Behavioral theory. Cognitive psychologists Albert Ellis and Aaron Beck have both repeatedly advocated the importance of restructuring irrational thoughts and dysfunctional beliefs by replacing them with positive thinking. The Cognitive-behavioral approach assumes that cognitive change and the resulting behavioral change relate to cognitive restructuring; which proposes that individuals are directly responsible for generating functional or dysfunctional emotions resulting in outcome behavior. This process can be promoted by changing and modifying the distorted thinking patterns (Beck, 1984). See Figure 1.

Figure 1. CBT Model (Beck, 1984)

Therefore, positive cognitions and healthy behavior can be shaped and reinforced through coaching health care providers the required skills.

The stress management program for health care providers entails cognitive-behavioral interventions to solve a variety of behavioral and psychological problems to help manage and/or decrease stress. It seeks to change irrational or faulty thinking and behaviors and
reinforces positive experiences that will lead to fundamental lifestyle changes. In other words, by learning to shift or alter their thinking processes, doctors and nurses can think more clearly about the choices and decisions they make, and the behaviors in which they engage; hence, improving their reactions to stress, their well-being, and the quality of care.

The stress management program for health care providers is depicted as follows; it begins with a psychoeducational component; short overview of the physiology of stress, triggers of stress and types of stressors in the workplace, signs and symptoms of stress and how it affects clinical practice. This didactic aspect is then followed by the instruction and practice of cognitive and behavioral techniques. The main cognitive components in the program are mindfulness and cognitive restructuring. During the behavioral part, the participants learn progressive muscle relaxation, diaphragmatic breathing, guided imagery and self-talk. Providing those stress management techniques will favorably support health care providers in decreasing the consequences of work stress; which will eventually reflect positively on patients’ care and satisfaction.
CHAPTER IV
Stress Management Program

Description of the Program:

This is a structured stress management program that aims to help health care providers; physicians and nurses to manage their stress, improve their coping skills, prevent burnout, and augment retention in various settings; such as in-patient care settings and out-patient care settings. The program addresses several stress reduction methods. It includes the physiology of the stress response, techniques to reduce stress and modify attitudes and reactions to stressors. The daily use of health promoting behaviors in incorporating strategies for stress reduction are emphasized.

The program will be conducted in five sessions over one week period. The duration of each session will be three hours. Program will be repeated as needed.

In order to be able to effectively implement and evaluate the program, the following learning outcomes are identified.

Learning Outcomes:

Upon completion of the program, the health care provider will:

1. Describe the physiology of the stress response. (comprehension-cognitive)
2. Identify triggers of stress and the signs and symptoms of stress. (Memory-cognitive)
3. Integrate stress management techniques into daily clinical practice. (synthesis-cognitive)
4. Demonstrate progressive muscle relaxation, diaphragmatic breathing, guided imagery. (mechanism-psychomotor)
5. Demonstrate an improved ability to listen, communicate, and manage workloads.
6. Show a continual desire to use stress reduction strategies in the workplace and lives.

(valuing-affective)

The proposed stress management program will include the participant need assessment, the design of the program, the content and mode of delivery, and the program evaluation.

**Need Assessment**

During my clinical residency in the American University Medical Center; Psychiatry Department and Family Medicine Department, several health care providers sought psychological counseling and reported occupational stress with associated burnout syndrome, poor physical and mental health. They related the stress from their job to conditions intrinsic to the job. Moreover, I could note that their perception of stress varied according to personal characteristics, or coping abilities. The reported symptoms related to stress included loss of appetite, increased smoking, migraines, emotional instability, and anger, difficulties in communicating and maintaining pleasant relations with colleagues, disruption of social and family life among others.

Moreover, the medical director and the clinical department administrator at Family Medicine(FM) reported several sick leaves given to medical and nursing staff. Also, in their regular satisfaction survey at the department, the staff reported difficulty in communicating with managers, low morale, low level of satisfaction regarding their financial status, promotion, progression in the department and recognition at work. They assume that this might be due to work stress, emotional exhaustion, burnout and poor psychological well-being. The medical director requested a workshop on stress management.
Physicians and nurses bear a major responsibility for delivering health care, and based on their feedback, the stress management program is needed by those health care providers to decrease the consequences of work stress on their lives, to improve their emotional and physical health, to increase their work satisfaction; and ultimately to increase long term retention.

**Design of the program**

The stress management program is designed to help the participants understand and learn to utilize the various cognitive and behavioral stress management techniques daily in order to manage stress better and regulate their reactions to stress. There is convincing empirical support for the efficacy of cognitive-behavioral stress management techniques for doctors and nurses; this program is based and adopted from a cognitive-behavioral stress management intervention by Dr. Megan Brent in 2004. Major components of CBT interventions are incorporated, with an emphasis on relaxation exercises, diaphragmatic breathing and comforting nutrition.

This stress management program will be conducted in five sessions over a period of one week. The duration of each session will be three hours. The sessions are given in a comfortable and easy accessible room which will be equipped with chairs put in a circle and a white board to enhance group discussion. Media such as DVD, TV, and LCD are available, in addition to any educational material required. Handouts, education material will be distributed.

**The first session** includes introductions and emphasizing the importance of participants’ commitment to the daily practice of the stress management techniques. The participants will brainstorm the different stressors they face in their daily clinical practice,
how they normally react to those stressors, i.e.: signs and symptoms of stress. The facilitator will then review the physiology of stress and how stress affects physiological, cognitive, affective, and behavioral components (Appendix I). Progressive muscle relaxation is introduced in the first session, and participants are instructed to practice the relaxation technique on their own every day (Appendix II).

Follow-up relaxation practices are incorporated into the remaining sessions. In each session, the participants receive a worksheet that they must fill and bring to the session to monitor their adherence to the relaxation homework (Appendix III). Each time they practice, they record the date and time and then rate their relaxation level before and after the relaxation exercise.

During the second session, participants learn diaphragmatic breathing and a simple stretching exercise as ways to achieve mental clarity, mindfulness, enhance focus and decrease stress (Appendix IV). Progressive muscle relaxation (PMR) is conducted again at the end of the second session, and the cue word "relax now" is introduced to facilitate cue controlled relaxation.

Guided Imagery and comforting nutrition are covered during the third session. The session includes information about how to harness the power of the mind through imagery. The participants learn about research findings related to imagery, and the benefit of using all of the senses during imagery. In addition, there are several short demonstrations and experiential activities to bring the topic to life and to help the participants better understand how to use imagery. Also, the participants learn about nutrition; types of comfort foods and their comforting effect on emotional experiences. Comfort foods are those that promote an emotionally pleasurable state. They may be classified as natural and homemade foods, including soups, vegetables, pasta, and steak. These are very helpful in chronic stress conditions. Once again, PMR is conducted at the end of the session, and the cue word "relax
now" is reintroduced once the participants are relaxed. In addition, they are instructed to imagine themselves working in the clinical setting with the stressors no longer affecting them negatively.

The fourth session is about cognitive restructuring and positive self-talk. The session includes information about cognitive restructuring and the effect that self-talk can have on self and quality of care. The participants learn about Cognitive Distortions (Appendix V) and take part in a group activity designed to teach them how to challenge irrational thoughts while reframing thinking to be more positive. Participants are given a homework sheet and instructed to record and reframe automatic thoughts for up to five situations that usually take place before the fifth session (Appendix VI). PMR with the cue word is done at the end of the session.

During the fifth and final session, there’s a review of the previous topics, including diaphragmatic breathing, progressive muscle relaxation, guided imagery, comforting nutrition, cognitive restructuring and self-talk. In addition, the participants are asked to integrate the techniques they learned throughout the stress management program by discussing how each of the techniques can help them achieve better mindset and work performance. Also, the participants are to repeat the PMR with the cue word and the imagery exercise to tie all of the experiential activities together.

Content and Mode of Delivery

The program consists of five sessions which will be presented using powerpoint presentation and a question period will follow for any clarification as needed, and session handouts will be distributed.
Session 1: Psychoeducation about Stress, and Progressive Muscle Relaxation (PMR)

The session will start by personal and group introductions (icebreaker). To get the full benefit, commitment to all the following sessions is essential.

The following components will be covered:

1) The aims of the stress management program; mainly for the participants to learn about and acquire strategies that will help them cope with stress and improve their clinical practice and quality of care

2) Definition of Stress; when demands outweigh coping ability

3) Participants brainstorm stressors in their practice (write on a board); which include patient complaints, medication errors, being criticized by colleagues or manager, and life events such as sickness, the death of a loved one

4) Effects of stress on body and mind; whereas physiological, cognitive, affective, and behavioral symptoms are discussed. For example, increased heart rate, high blood pressure, difficulty breathing, sweating, nausea, tense muscles, backache, headache, decreased immune functioning, ulcers, heart disease, anxiety, depression, moodiness, trouble sleeping and/or eating, irritability, negative thinking, excessive drinking/drugs

5) Effects of stress on quality of clinical practice; which include trouble concentrating, muscle tension, negative thinking/attitude, medication errors

6) Introduce the relaxation technique; Progressive Muscle Relaxation (PMR) which Jacobsen developed in the 1930s. Its benefits are covered; which include enhanced self-control, self-management of stress, improved health; less negative impact of stress on body. Participants will practice and demonstrate how to tense each group of muscles. The facilitator will count down to alertness. Participants will be given the PMR handout (Appendix II).
7) In closure, the participants give feedback in relation to session one; they become more alive, awake and energized. Room for questions and discussion is allowed. Homework is assigned; worksheet is given (Appendix III) which constitutes name, date, time started/stopped, and tension rating before and after practice. Homework will be reviewed next session.

Session 2 - Diaphragmatic Breathing and Stretching Exercise

In the beginning of this session, participants will review the purpose of the program.

The Facilitator collects and evaluates PMR homework.

The following components will be covered:

1) Deep diaphragmatic breathing, a relaxation exercise, is introduced which addresses the physiological component of stress.

2) The participants compare diaphragmatic breathing versus thoracic ("chest") breathing through demonstrating. For example, short, shallow breaths are characteristic of stress and anxiety (thoracic breathing). The participants are instructed to place one hand on their chest and another on their abdomen to feel the rhythm and quality of their breathing. Those who are not breathing diaphragmatically are instructed to clasp their hands behind their heads which leads to abdominal breaths. With every deep breath they take, tension decreases.

3) The 4-7-8 breathing technique is introduced; whereby the participants are instructed to inhale while counting to a 4, hold their breaths while counting to a 7, and exhale slowly while counting to 8.

4) Participants are encouraged to practice deep breathing when they feel stressed, tired, and anxious.
5) Cue-controlled relaxation is explained whereas a word is paired with the feeling of relaxation. The participants start with the deep breathing, they do PMR with six muscle groups and then, once they are relaxed, the cue word "relax now" is added.

6) Simple stretching exercise is demonstrated and explained; the following physical activity can be used for releasing muscle tension triggered as a response to stress.
   a) Stand relaxed, arms hanging at sides and feet about one foot apart.
   b) Tilt head back and hold for five seconds
   c) Roll head forward and hold for five seconds.
   d) Curl chest and stomach forward as you bend at the waist; arms dangling for five seconds.
   e) Inhale slowly through mouth as you straighten up. Raise arms overhead; drop arms slowly to sides as you exhale slowly through your mouth

7) In closure, participants can discuss, ask questions and give feedback. Again in this session, relaxation worksheets are handed out and participants are encouraged to practice PMR daily with cue word.

Session 3 – Guided Imagery (GI) and Comforting Nutrition

In the beginning of the session, participants review what they learned during the last two sessions; progressive muscle relaxation, deep breathing and a simple stretching exercise. Worksheets are collected.

In this session, guided imagery and types of comfort foods are covered.

1) The benefits of imagery; helps learning and improves mental state with practice. GI is a natural mental process used for memory, planning, learning, creating and performing.
2) The following GI exercise will be carried out; participants are asked to close their eyes and visualize where their T.V. is located in their house. They report seeing a picture. Hence, they identify that human beings think in images. Also, they are asked to remember a time when they were smelling, tasting, hearing, touching (experiencing all the senses). For example, the smell of red roses, the taste of lemon and salt, the sound of laughter, the feel of a silk scarf.

3) A volunteer will be asked to close the eyes and to lift up his/her arm. The volunteer is to locate the arm; showing the importance of kinesthetic sense. Kinesthetic sense is essential to nurses and doctors; implicating movement and balance.

4) Imagery can be used in many ways; participants are asked to remember experiences and learn from them. For instance, they are to remember good experiences and practice recreating the feeling. Consciously creating strong imagery of an ideal work day by including as much sensory information as they can.

5) Another activity where they are guided to close their eyes and imagine carrying out a certain activity which is stressful. They are then asked to develop a "relaxing image" instead. “Remember a time when you felt in control, peaceful, confident, clear-headed, and full of energy. You can use a cue word or action to invoke the feeling ("alive" or fist clench). For example, imagine being on a mountain top to achieve feelings of calm, power, and wholeness.

6) Participants experience how relaxation and GI can both help improve concentration and increase vividness. Gradually and with practice, this will become automatic.

7) The benefits of comforting nutrition; certain types of food can have a comforting effect on emotional experiences. Comfort foods are those that promote an emotionally pleasurable state. They are the natural and homemade foods, including soups, vegetables, pasta, and steak. These are very helpful in chronic stress conditions
8) In closure, the practice of visualizing the ideal mood or the ideal clinical day is emphasized. The participants are asked to demonstrate deep breathing and PMR with four muscle groups, add cue word, and then they are to imagine being stress free at work. Relaxation worksheets are given and they are encouraged to practice PMR daily with cue word and to use imagery on their own.

**Session 4 - Cognitive Restructuring and Positive Self-Talk**

In the beginning of the session 4, the relaxation worksheets are collected and participants discuss the PMR and GI practice and homework.

The learning activities that are covered in this session are the following:

1) Other evidence-based strategies to manage stress; cognitive restructuring and positive self-talk; whereas the concepts of distorted thinking, emotional awareness and mindfulness are introduced to the participants. The quality of thoughts, what we tell ourselves is linked to emotions and behavior.

2) The participants are asked to imagine that they did a medication error, or arrived later than they should have to the hospital. They are asked about their thoughts. Some answers would be; “I'm lazy, I’m not good enough, it would be better if I quit.” They are asked about their feelings; “Sad, angry, guilty”. Then, the participants are asked to think in a more positive way about the situation. For example, “I'll do better next time, I’ll be more mindful”

3) This exercise demonstrated that there are different ways to interpret a situation, and how an event is interpreted determines the quality of thoughts, feelings, and actions.
As a result, the participants become more aware of negative, irrational thoughts and are able to modify them.

4) Handouts on Types of Cognitive Distortions are distributed (Appendix V). Group discussions on the types of distortions; whereas the participants are asked to give examples from real life and to write them on the board; the situation, related automatic thought, the physical and the emotional responses; i.e.: depressed, anxious, sick, and tired. Then, they are asked to identify the cognitive distortions; i.e.: all-or-nothing thinking, overgeneralization and to reframe the thoughts; i.e.: "I did my best," or "I'll do better next time."

5) In closure, participants are urged to practice cognitive restructuring and positive self-talk; identify their cognitive distortions/negative thoughts, challenge them, and then modify them with positive thinking. This takes practice! Sometimes our negative thoughts are messages that have been implanted in us for a long time… it's like a tape that plays in our minds. They are to record over the tape. Furthermore, self-talk homework is distributed (Appendix VI) to increase the awareness of self-talk.

**Session 5 – Review and practice of stress management techniques**

During the last session, the participants review all the previous topics; including diaphragmatic breathing, progressive muscle relaxation, guided imagery and comforting nutrition, cognitive restructuring and positive self-talk. The participants are asked to discuss how each of the techniques can help them achieve better mindset and work performance. In addition, the participants are asked to repeat, and demonstrate the PMR, the diaphragmatic breathing with the cue word and the imagery exercise to tie all of the experiential activities together.
Moreover, in this final session, role play will take place. Participants will be divided into groups and each will get a specific stressful situation, where they will state stressors, how they used to react to the stressors pre the stress management program, and how they can react now post program by applying the appropriate stress management technique.

**Program Evaluation**

The evaluation process is an important step in appraising the overall effectiveness of the program and the sessions. Participants will evaluate the program’s objectives and learning outcomes, learning methods, the mode of delivery and the content of the sessions by filling an evaluation form at the end of the program (Appendix VII). The data of the evaluation collected will be gathered and analyzed to improve the program and its impact on health care providers. Another part of the evaluation can be done long term; whereas six months following program implementation, participants will be given a questionnaire asking them about their use of the skills learned in the program and their level of stress, burnout respectively.
CHAPTER V

Conclusion and Recommendations

In light of the significant stress experienced by health care professionals, and the deleterious consequences of this stress on their lives, it seems important to seriously explore effective means of supporting them.

Implementing a stress management program that could help physicians and nurses feel less stressed and more satisfied about their practice is the purpose of this project. Doctors and nurses must be equipped with coping skills in order to stay engaged and grounded in their profession.

This is a program that can be implemented in hospitals. Approaching the clinical practice with mindfulness increases work satisfaction and the ability to effectively cope with stress. The increase in self-care gained through the stress management program is extremely important to the overall health of the nurses and doctors and their ability to relate to each other and to other health care providers, enhancing the quality of their practice.

Further, given that job burnout and distress have been significantly associated with decreased patient satisfaction, incorporating the stress management interventions for health care professionals will not only enrich their practice, but also will have the potential to enhance patient care. The stress management program will also allow health care providers acquire positive beliefs about mind/body medicine and its essential integration into the existing health care structure.

It is recommended to add to this project a financial analysis. A proposal will be completed to address the AUBMC administration, the Clinical and Professional Development Center (CPDC). One piece of data for the financial analysis will be the turnover and sick leave rates before and after program implementation; since with this information, the cost of
getting relief for absent staff or orienting new hires to replace those who resign can be calculated.

The Family Medicine Department; chaired by Dr. Ghassan Hamadeh, recognized the need to initiate the stress management program in its department; it has been preliminary agreed to provide its medical and nursing staff with the program in June 2013.

On a research level, it is recommended to evaluate the program effectiveness through pre-test, post-test using different instruments. Data can then be gathered and analyzed.

The Stress Management Program for Health Care Providers; namely, physicians and nurses is a unique initiative. If well supported, it shall empower doctors and nurses to be healthier wellness role models, advocates and educators for their patients, work environments, families and communities. It is hoped that the program will partner with many medical centers and departments to promote healthy lifestyle practices among current and future health care providers.

As health care providers are enabled to take better care of themselves, they will be able to take better care of others; physically, emotionally, spiritually and professionally.
APPENDIX I

Session Content

Stress and Disease

Prepared by:
Myrna Saadeh, BSN, MSN
Psychiatry Mental Health

Learning Objectives

- Define stress
- Describe the physiology of stress
- Identify types of stressors
- Discuss stress and disease

Outline

- Definition of stress
- Physiology of stress
- Types of stressors
- Stress and disease
- Discussion
- References

Definition of Stress

Stress is an organism's response to a stressor; such as an environmental condition or a stimulus.

According to the stressful event, the body's way to respond to stress is by the sympathetic nervous system which results in the Fight-or-Flight response.
Definition of Stress – Cont’d

A person experiences stress when a demand exceeds a person’s coping abilities, resulting in reactions such as disturbances of cognition, emotion, and behavior that can adversely affect well-being.

Definition of Stress – Cont’d

Selye, 1975

Stress is divided into eustress and distress.

Eustress: Stress enhances function (physical or mental, such as through strength training or challenging work

Distress: Persistent stress that is not resolved through coping or adaptation, may lead to anxiety or withdrawal (depression) behavior.

The difference between experiences that

Definition of Stress – Cont’d

Lazarus

Cognitive processes of appraisal are central in determining whether a situation is potentially threatening, constitutes a harm/loss or a challenge, or is benign.

Personal and environmental factors influence this primary appraisal, which then triggers the selection of coping processes. Secondary appraisal refers to the evaluation of the resources available to cope with the problem, and may alter the primary appraisal.

Physiology of Stress

General Adaptation Syndrome

1) **Alarm Stage**: arousal of body defenses

2) **Stage of resistance or adaptation**: mobilization contributes to fight or flight

3) **Stage of exhaustion**: progressive breakdown of compensatory mechanisms
Physiology of Stress – Cont’d

1) Alarm stage; stressor triggers the hypothalamic-pituitary-adrenal (HPA) axis, activates sympathetic nervous system
2) Resistance stage; begins with the actions of adrenal hormones: cortisol, epinephrine, norepinephrine
3) Exhaustion stage; occurs only if stress continues and adaptation is not successful
   - Onset of disease

Types of Stressors

Anything that demands a response in order to maintain homeostasis

- Noxious: pain, cold, trauma, hunger
- Not noxious: life events, excitement
Stress and Disease

Stress may cause cognitive, emotional, physical, or behavioral disorders.

Cognitive symptoms
- Memory problems
- Inability to concentrate
- Poor judgment
- Pessimistic approach or thoughts
- Anxious or racing thoughts
- Constant worrying

Stress and Disease – Cont’d

Emotional symptoms
- Moodiness
- Irritability or short temper
- Agitation, inability to relax
- Feeling overwhelmed
- Sense of loneliness and isolation
- Depression or general unhappiness

Stress and Disease-Cont’d

Physical symptoms
- Aches and pains
- Diarrhea or constipation
- Indigestion
- Changes in blood glucose
- Nausea, dizziness
- Chest pain, rapid heartbeat
- Loss of sex drive
- Frequent colds
- Irregular periods.

Stress and Disease-Cont’d

Behavioral symptoms
- Eating more or less
- Sleeping too much or too little
- Isolating oneself from others
- Procrastinating or neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Nervous habits (e.g. nail biting, pacing)

Stress and Disease – Cont’d

- Stress can precipitate disease; i.e.: cardiac
- Can worsen existing disease
  - Irritable bowel disease
  - Asthma
  - Autoimmune diseases
  - HIV progression

Stress and Disease – Cont’d

- Interaction of factors; psychologic, neurologic, immunologic
- Link to obesity, type 2 diabetes
- Link to coronary heart disease
- Stress induces hormone alterations. For example, plasma prolactin levels increase; testosterone levels decrease
- Hypercoagulation of the blood
- Free radical damage of cells
- Immunodepression
### Conclusion

Stress is an integral part of modern scientific understanding in all areas of physiology and human functioning. Focus grew on stress in certain settings, such as workplace stress, and stress management techniques were developed.

### Conclusion-Cont’d

Stress also became a euphemism, a way of referring to problems and eliciting sympathy without being explicitly confessional, just "stressed out." It came to cover a huge range of phenomena from mild irritation to the kind of severe problems that might result in a real breakdown of health.

### Discussion

- Any questions about stress; its definition and physiology?
- Any questions about stress and associated diseases?

### References


APPENDIX II

Progressive Muscle Relaxation

1. Right hand and forearm
   Tense by making a tight fist with the right hand.

2. Right bicep and tricep
   Tense by bringing the right elbow into the side.

3. Left hand and forearm
   Tense by making a fist with the left hand.

4. Left bicep and tricep
   Tense by bringing left elbow into the side.

5. Forehead
   Tense by either raising the eyebrows up or by making a deep frown.

6. Eyes and nose
   Tense by squinting hard and wrinkling the nose.

7. Mouth and jaw
   Tense by clenching the teeth and forcing the lips back.

8. Neck
   Tense by either counterposing the neck muscles or by pushing the head back into the chair.

9. Chest and shoulders
   Tense by holding a deep breath and forcing shoulder blades back and together.

10. Abdomen
   Tense by tightening up the stomach muscles.
11. **Right thigh**
   
   Tense by raising the right leg slightly off the chair.

12. **Right calf**
   
   Tense by pointing the right toes up toward the top of the head.

13. **Right foot and toes**
   
   Tense by curling the toes and pointing the foot inward.

14. **Left thigh**
   
   Tense by raising the left leg slightly off the chair.

15. **Left calf**
   
   Tense by pointing the left toes up toward the top of the head.

16. **Left foot and toes**
   
   Tense by curling the toes and pointing the foot inward.
APPENDIX III

Relaxation Worksheet

Relaxation is a skill that develops with practice. While you are learning how to use Progressive Muscle Relaxation, it is important that you practice daily.

Complete the following Relaxation Worksheet and bring it to the next session.

Next to each category indicate the appropriate information about your daily practice.

For "Degree of Relaxation," 0 = very relaxed… 10 = very tense

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
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<td>Time Started</td>
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<td>Time Stopped</td>
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<td>Degree of relaxation at the beginning</td>
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<td>Degree of relaxation at the end</td>
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APPENDIX VI

Session Content

Mindfulness

Prepared by:
Myrna Saadeh, BSN, MSN
Psychiatry Mental Health

Objectives

• Describe mindfulness and breathing techniques as stress management modalities
• Show increased acceptance of thoughts and emotions
• Demonstrate improved mindfulness
• Show a continual desire to use stress reduction strategies in daily life

Outline

• Definition of Mindfulness
• Importance of the breath
• Mindfulness of thoughts and emotions
• Mindfulness Meditation
• Discussion
• Reference

Definition

Mindfulness means:

• Paying attention
• On purpose
• In the present moment
• Nonjudgmentally
Definition

- Ability to experience the present moment
- Clear awareness of thoughts / emotions
- Ability to relate to one’s experience with compassion/understanding
- Ability to experience/transform emotional distress
- Space where creative solutions can arise

Importance of the Breath

- Be more mindful of your breathing, feel the sensations of it
- Tuning in to your breath provides an opportunity to center yourself
- Accepting what is happening in us and around us, whatever it is, we learn to open to experience, without judgement

Importance of the Breath

- Teaches us ways to connect with our emotional experience without becoming overwhelmed
- Daily sessions of 10 to 15 minutes make a significant difference to one’s life, the added benefit of regular practice being that you will educate yourself to always be more mindful

Mindfulness

Be more mindful of your thoughts
60,000 thoughts/day
95% same ones day after day
80% of those are automatic negative thoughts

Mindfulness

Mindfulness provides a simple but powerful route for getting ourselves unstuck, back into touch with our own wisdom and vitality. It is a way to take charge of the direction and quality of our own lives, including our relationships with our family, our work and to the world, and most fundamentally, our relationship with ourselves

Mindfulness Meditation

Make yourself comfortable. Now breathe in deeply and let your eyes gently close. Relax your shoulders, arms, wrists and fingers, put a slight smile on your lips to relax your face and place your tongue on the roof of your mouth. Now sit still and calm and pay attention to your breath; inhale and exhale slowly. You can imagine that you are inviting calm and energy into your body with each in breath, and with each breath out that you are releasing tension, stress and anxiety.
Discussion

Do you have any questions about mindfulness or how you can practice to be more mindful?

Reference

APPENDIX IV

Types of Cognitive Distortions

1. **All-or-nothing thinking** - evaluating personal characteristics or situations in black-or-white categories

2. **Overgeneralization** - viewing one negative event as a never-ending pattern of defeat

3. **Mental filtering** - dwelling on a negative occurrence, which makes the whole situation seem negative

4. **Disqualifying the positive** - turning positive comments into negative thoughts

5. **Jumping to conclusions** - especially negative ones…
   a. **Mind reading** - assuming you know what another person is thinking
   b. **Fortune telling** - predicting that things will turn out badly

6. **Magnification and minification** - exaggerating the importance of a negative event or mistake and denying the importance of positive personal characteristics or events

7. **Emotional reasoning** - using your emotions to validate your thoughts… if you feel that something is right, then it must be true

8. **Labeling** - describing an entire situation or person based on one negative event or quality

9. **Personalization** - feeling responsible, to blame, for something bad that happens

10. **"Should" statements** - thinking you should do this or that
APPENDIX V

Self-Talk Homework (Record of Automatic Thoughts and Reframing Practice)

<table>
<thead>
<tr>
<th>Date</th>
<th>Situation</th>
<th>Automatic Thoughts</th>
<th>Physical Response</th>
<th>Emotional Response</th>
<th>Cognitive Distortion</th>
<th>Reframed Thought</th>
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APPENDIX VII

Evaluation Form

I. Please circle how beneficial each component of the program was for you.
Not at all helpful: 0    Slightly helpful: 1    Fairly helpful: 2    Highly helpful: 3
1. Education about Stress 0 1 2 3
2. Deep Breathing Technique 0 1 2 3
3. Progressive Muscle Relaxation 0 1 2 3
4. Guided Imagery 0 1 2 3
5. Self-Talk or self-hypnosis 0 1 2 3
6. Cognitive Restructuring 0 1 2 3

II. Please circle the changes you perceive in your ability to use these techniques.
Not at all improved: 0    Slightly improved: 1    Fairly improved: 2    Highly Improved: 3
1. Deep Breathing Technique 0 1 2 3
2. Progressive Muscle Relaxation 0 1 2 3
3. Guided Imagery 0 1 2 3
4. Cognitive restructuring 0 1 2 3
5. Self-Talk or self-hypnosis 0 1 2 3
6. Overall Stress Management 0 1 2 3

III. Please rate your level of commitment to each area of the program.
Not at all committed: 0    Slightly committed: 1    Fairly committed: 2    Highly Committed: 3
1. Learning about Stress 0 1 2 3
2. Using Deep Breathing Technique 0 1 2 3
3. Doing Progressive Muscle Relaxation 0 1 2 3
4. Applying Cognitive restructuring 0 1 2 3
5. Using Imagery 0 1 2 3
6. Using Self-Talk 0 1 2 3
IV. Please rate any change you perceive in your thoughts, in work satisfaction and quality of care since participating in this program.

Not at all improved: 0    Slightly improved: 1    Fairly improved: 2    Highly improved: 3

V. Please feel free to add any comments or impressions you have regarding this program.
References


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