Full Length Research Paper

Jack and Jill fall down the stress filled hill: An integrative management educational model to prevent such stressful slides

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Stress has been found to increase anxiety and depression in individuals, and to increase anger and violence in society. Further, stress has been shown to negatively affect learning. The purpose of this article is to introduce and propose an integrated management educational model to teach stress reduction skills to management students as part of their courses. This article suggests that a holistic approach to dealing with stress will be both beneficial to students and will enhance learning. This article integrates and applies three major stress management techniques into the main model – creative arts interventions, relaxation training, and mindfulness based stress reduction. Suggestions and recommendations for future research are finally presented.

Key words: Stress theories, stress management techniques, management education, integrative model.

INTRODUCTION

“Stress is when you wake up screaming and you realize you haven’t fallen asleep yet” (Author unknown). Stress is indeed synonymous with modern times, and is becoming more and more prevalent (Shirey, 2007). Stress typically leads to anger manifestations which can reveal themselves with stunning ferocity – “road rage” on the streets, “desk rage” in the workplace, and “ward rage” in hospital settings (Shirey, 2007; Thomas, 2003). Stress can be defined as “the inability to cope with a perceived (real or imaginary) threat to one’s mental, physical, emotional, and spiritual well-being which results in a series of physiological responses and adaptations” (Oswalt and Riddock, 2007; Seaward, 2002). The threat could be positive, termed eustress, or negative, called distress. There are two major kinds of stressors – life events and chronic strains – examples of the former might include events such as starting college, or graduating, whereas examples of the latter could include academic or financial pressure (Oswalt and Riddock, 2007).

Stress is common to both students as well as professionals; Ahmad and Salim (2009) for instance, did a study where they obtained information from 118 entrepreneurs and their stress sources as well as coping mechanisms. Similarly, Khattak et al. (2011) examined occupational stress and burnout in the banking sector of Pakistan, where they found that stress was directly related to burnout, which in turn led to significant issues such as back pain, headache, among other issues. Another study by Samuel et al. (2009) also related stress with other variables such as bank distress, job satisfaction and psychological wellbeing. A study by Tsai et al. (2010) found that internal job stress negatively influenced employees’ job satisfaction, whereas, external job stress enhanced employees’ job performance.

However, stress is particularly harmful to students, as educators and researchers alike have discovered. A student’s normal developmental changes in conjunction with environmental conditions create a bad case of stress (Romano, 1992). Other researchers have commented on
the types of stressors and the amount of stress that children and young adults experience (Elkind, 1981; Honig, 1986a, b; Romano, 1992). Stress has been found to be the main culprit when undergraduate students fail to complete their degree requirements and drop out of college (Rickinson, 1998).

Student civility in the classroom has grown worse over time (Lashley and De Meneses, 2001; Shirey, 2007). Lashley and De Meneses (2001) found three categories of deleterious classroom behaviors by students — inattention, absences, and lateness; they also reported some instances of objectionable physical contact with instructors as well as verbal abuse of instructors. This adverse reaction to stress could also result in violent acts, as the event at the University Of Arizona College Of Nursing demonstrates. A distressed nursing student caused the violent deaths of 3 faculty members there (Hall, 2004; Shirey, 2007). Similarly, another tragedy at Virginia Polytechnic Institute and State University resulted in the deaths of 5 faculty and 27 students (Hall, 2004; Shirey, 2007).

Stress among college students also leads to a host of mental health issues (Benton et al., 2003; Gallagher, 2004; Kisch et al., 2005; Oswalt and Riddock, 2007; Young, 2005). Depression and suicidal tendencies are two of the most significant and worrisome reactions to stress (Benton et al., 2003; Oswalt and Riddock, 2007). The number of students taking psychiatric medications (Beneton et al., 2003; Oswalt and Riddock, 2007) has increased significantly; this finding is consistent with more than 400% increase in spending nationally on prescription drugs for the treatment of mental illnesses from 1991 to 2001 (Mark et al., 2005; Oswalt and Riddock, 2007).

Stress has also been a major contributor to poor academic performance. This is not restricted to undergraduates. Graduate students also report stress related to role conflict, time constraints, financial pressure, and lack of support (Hudd et al., 2000). And stress has been found to afflict non-traditional students (Dill and Henley, 1998; Oswalt and Riddock, 2007). Further, stress has been shown to affect learning performance through increased exhaustion (LePine et al., 2004). Stress is also documented as being responsible for increased drinking behaviors (Pauley and Hesse, 2009).

It is clear that something needs to be done to eliminate, or at least reduce, student stress. This point is especially congruent when the study observes from prior research that students who are able to decrease their stress levels have better studying techniques and research skills, improved time management, and increased knowledge (Walsh et al., 2005). However, little research has been done on the effects of stress on business students (LePine et al., 2004). More specifically, little research has been done on the management educators’ role in enhancing learning and reducing stress simultaneously. Most of the existing research on stress and students seems to be focused on nursing and college students generally (Shirey, 2007; Rickinson, 1998; Oswalt and Riddock, 2007). This makes it imperative that management educators start thinking about how stress management skills could be imparted to our students without inadvertently adding to their stress levels. It is our aim in this article to propose a model that management educators could utilize to ensure that their students are fully capable of dealing with and managing stressors. The study believes that by applying a holistic approach, student learning can be enhanced as a result of stress reduction.

**Stress theory**

Stress is a word that is uncommonly difficult to define, even though the word itself is universally understood. As Romano (1992) mentions, theorists and researchers have been unable to agree on a common definition of the term. Selye (1976) defines stress in terms of the body’s physical response to a demand and categorizes it as either “eustress” or “distress” based on the quality (positive or negative) of the demand (Romano, 1992). Holmes and Rahe (1967) focused on the stressors themselves and their effects on the physical health of individuals (Romano, 1992). Holmes and Rahe (1967) developed a scale known as the Holmes and Rahe social readjustment rating scale, and Coddington (1972) further developed that scale. Marx et al. (1975) then developed a college-age version of the Holmes and Rahe scale.

Lazarus and Folkman (1984) further elaborated the conceptualization of stress, defining it in terms of an interaction between the individual and his or her environment. Their contention was that the impact of a stressor is mediated by the individual’s appraisal of the stressor in terms of risk to the person and his or her ability to cope with the situation. This conceptualization helped better define stress, as previous research failed to consider individual coping skills.

These have been referred to as the response (Selye), stimulus (life events), and interactional (Lazarus) stress models (Matheny et al., 1986; Romano, 1992). Another model is the “conservation of resources” conceptualization of stress proposed by Hobfoll (1988). Hobfoll (1988) defines stress as a reaction to the environment in which there is either (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) the lack of resource gain following investment of resources.

Thus, there are several ways to conceptualize stress, adding to the lack of consensus around a single, correct, definition or conceptualization of stress. However, we are not unduly concerned about the lack of consensus, as our main goal in this article is to offer a model to reduce and manage stress. Having said that, however, our proposed model is based on relatively well-established stress management techniques grounded in one of these various conceptualizations of stress: coping techniques,
creative arts intervention, mindfulness based stress reduction (MSBR) techniques, and mastery-avoidance goals. Further, proven, successful, stress management and reduction strategies are described

**STRESS MANAGEMENT TECHNIQUES**

**Coping techniques**

Some coping mechanisms are automatic and implicit reactions. For example, someone who overindulges in chocolate is, basically, managing his or her stress, even though the chosen mechanism is maladaptive. Oswalt and Riddock (2007) reported that their sample students' coping mechanisms were healthy (“yoga”), unhealthy (“alcohol”), or neutral (“vegging out”). Spillman (1990) reported that students relied on two major methods to alleviate the stresses in their lives—exercise and food consumption. Pizza, soft-drinks, and ice-cream topped the list of foods most often consumed by the students in Spillman’s (1990) sample. While this may sound like an innocuous way to combat stress, research has found that excess consumption of carbohydrates often results in obesity, which in turn has been linked to depression and other negative outcomes (Babey et al., 2009). Similarly, excessive exercise has been demonstrated as having possibly devastating detrimental effects such as a response curve with a plateau and even toxicity at higher levels of exercise (La Gerche and Prior, 2007).

Moderate exercise, however, has been demonstrated as being very useful in combating anxiety, depression, and anger, which are all typical stress outcomes (Berger and Owen, 1992; Berger and Owen, 1998; Dyer and Crouch, 1988; Jin, 1992; Kim and Kim, 2007; Steptoe et al., 1993). Exercise types run the gamut from weight training to jogging, and Kim and Kim (2007) found that aerobics and hip-hop dancing were more effective in elevating mood than body-conditioning or ice skating.

**Creative arts interventions**

Walsh et al. (2005) reported that stress was lowered among their sample students with a creative arts intervention. Walsh and her colleagues designed the intervention to reduce and ameliorate their students stress levels. The intervention consisted of a package of four creative arts activities easily implemented by a trained leader – no artistic skills were required of the students (Walsh et al., 2005). The intervention was designed to lower stress, reduce anxiety, and promote positive emotions (Walsh, 1993; Walsh and Hardin, 1994; Walsh and Minor-Schork, 1997; Walsh and Webb-Corbett, 1995; Walsh and Weiss, 2003; Walsh et al., 2005). The four activities were as follows:

i. Creation of mono-prints or greeting cards, in which abstract images are created by pressing paper on top of watercolor puddles

ii. Creation of a future-image poster, which is a self-portrait made from an instant photograph of the participant’s head and pre-drawn images of bodies wearing clothes signifying various professions or activities

iii. A large group project in which participants create a silk wall hanging by writing messages on the silk, stretching it onto an embroidery hoop, and dropping paint onto the silk

iv. A small group mandala, in which three to four students work together to draw or paint a theme around and inside a circle

Walsh et al. (2005) reported that students who participated in the interventions showed significantly lower levels of stress and anxiety and significantly more positive emotions. In addition, the students reportedly gained more understanding and knowledge from their coursework. The future-image poster, in particular, was a popular and effective intervention, suggesting that it might be especially valuable and portable for use in a management education based model. While these stress reductions might be of short duration, they are nevertheless beneficial (Figure 1).

**Mindfulness based stress reduction (MSBR) techniques**

Mindfulness based stress reduction (MSBR) techniques are one of the most well-researched stress management programs (Schure et al., 2008). MSBR teaches mindfulness, which refers to the ability to attend to thoughts and emotions in a synchronous way and to be completely conscious of the present-moment. MSBR has, since its inception, (Kabat-Zinn, 1990; Schure et al., 2008) been taught to thousands of medical patients and other participants. Meditation is the core of the MSBR program. Through MSBR, individuals learn ways to better care for themselves and to live healthier and more adaptive lives (Proulx, 2003; Shirey, 2007). In its entirety, it is typically run as an eight-week course that teaches mindfulness through the practice of meditation, body scanning (a type of guided awareness), and hatha yoga. MSBR strategies fall within a category of meditation techniques that combine affective, cognitive, interpersonal, and intrapersonal dimensions (Beddoe and Murphy, 2004; Shirey, 2007). One of MSBR’s strengths is that it allows participants to choose from several mindfulness practices. Research indicates that some participants find one or the other practice more beneficial or preferable (Kabat-Zinn et al., 1997; Schure et al., 2008).

MSBR studies of varied populations have all found significant reductions in anxiety, depression, mood disturbance, somatic symptoms of stress, and present-moment pain (Kabat-Zinn et al., 1985; Kaplan et al., 1993; Kristeller and Hallet, 1999; Reibel et al., 2001; Roth, 1997;
Speca et al., 2000; Teasdale et al., 2000; Schure et al., 2008). Other MSBR studies have reported improvements in quality of life, general health, sleep quality, and immune function, as well as reductions in psychological distress (Carlson et al., 2004; Davidson, Kabat-Zinn, Schumacher, Rosenkranz, Muller, and Santorelli, 2003; Lawson and Horneffer, 2002; Roth and Robbins, 2004; Williams et al., 2001; Schure et al., 2008). A meta-analysis of MSBR studies found that the technique helped a broad range of individuals to cope with both clinical and nonclinical problems (Grossman et al., 2004; Shirey, 2007).

MSBR was initially developed to introduce healthy coping mechanisms to medical patients. It has received increasing attention, however, for its proposed ability to help prevent stress-based illness and disease. In particular, researchers have demonstrated its effectiveness in helping students cope with stress (Schure et al., 2008). Reductions in student anxiety, depression, and stress levels were observed by Astin (1997), and Shapiro et al. (1998). Holland (2004) found that MSBR helped college students with disabilities and chronic illness to deal with daily stressors.

Schure et al. (2008) explored the effectiveness of MSBR through a qualitative study on students with counseling majors. They too observed lower anxiety and depression in their study’s subjects. Schure et al. (2008) reported that students who practiced MSBR had a greater sense of trust and confidence in themselves.

Several participants reported that the MSBR would help them in their professional careers, as well as their personal lives.

**Mastery-avoidance goals**

Another possible stress management technique is mastery-avoidance. Elliot and McGregor (2001) proposed the existence of mastery-avoidance goals, in which the focus is on judging performance, based on interpersonal performance standards. According to the mastery-avoidance goals approach, a person can be either motivated to learn and understand a particular skill, or be motivated by the goal of not failing to master that skill. The former reflects an approach focus and a well-established adaptive form of motivation (Dweck, 1986; Nicholls and Miller, 1985; Sideridis, 2008).

However, this approach fails to reduce stress. Sideridis (2008) found that upon adopting mastery-avoidance goals, a maladaptive network of negative cognitions and negative affect with concomitant increases in physiological arousal arises. The trouble with enhancing arousal is that it can then become a stress factor, and have implications for health and illness. It eventually may lead to goal failure, which, in turn, can lead to further anxiety and depression (Sideridis, 2005).

The evidence therefore suggests to us that mastery-avoidance goals are perhaps the wrong kind of tool to be
Relaxation training and written emotional disclosures

Relaxation training (RT) and written emotional disclosures (WED) are two examples of conceptually differing psychological approaches to reducing stress and improving health (D’Souza et al., 2008). The former method assumes that negative emotions and physiological arousal are problematic and advocates directly reducing arousal and increasing calm to improve health. The latter assumes that the inhibition or avoidance of negative emotions is fundamentally problematic and contributes to unresolved stress reactions and health problems.

In RT, participants listen to relaxation audiotapes, and are taught active relaxation training for 14 muscle groups. They practice applied relaxation, followed by deep breathing and autogenic procedures. Autogenic procedures involve participants getting into a state of relaxation following visualization exercises. These are then followed by autogenic relaxation using vivid imagery and breathing techniques. Autogenic relaxation and release and cued techniques are emphasized (Nash and Holroyd, 1992; D’Souza et al., 2008). With WED, on the other hand, participants write about a significant personal trauma or stressful experience from the past or present, but which they have not discussed in detail with others. Participants are then asked to write, in detail, about how the event affected them (D’Souza et al., 2008; Pennebaker and Beall, 1986; Smyth et al., 1999).

The WED technique has been used mostly with people suffering from health problems rather than stress issues, which led D’Souza et al. (2008) to compare the effectiveness of WED and RT in resolving tension or stress headaches. Tension and migraine headaches are quite common and about one fourth to one third of the general population report having several tension headaches per month (D’Souza et al., 2008). Stress has been deemed as being a big contributor to the frequency, severity, and degree of debility resulting from both tension and migraine headaches. Prior research has found that RT led to substantial improvements in migraine and tension headaches (Carlson and Hoyle, 1993; D’Souza et al., 2008; Lipchik and Holroyd, 1999); however, no such test was conducted for WED. D’Souza et al. (2008) evaluated the effectiveness of both RT and WED in relieving stress headaches and discovered that RT was effective in reducing tension headaches, whereas WED was not.

An integrative management educational model

After having provided an introduction to stress theory and having discussed several stress management techniques that have received profuse support from researchers, we will now introduce our integrative management educational model, which will essentially borrow concepts from prior research findings and methods, and transfer applicability to a management education context.

The study developed this model while keeping in mind the traditional setup of management classes. These classes may consist of a variety of components: lectures, discussion, projects, experiential activities, assignments, quizzes and/or exams. This sort of blueprint is typically followed for most management or business classes, with possibly a few exceptions. The study believes that this model should help educators reduce some of the stress experienced by their students (Model 1).

The model is based on the belief that stress management methods have a place in management education through classroom integration of these methods. All these stress management techniques can be embedded in classroom integration through different ways. We propose that classroom integration of stress management methods can take place in three ways — through experiential activities, through inclusion in lecture materials and project work. The model is unique in that no other such model currently exists for a management educational framework. Because we believe that stress interferes with performance in the classroom, the study advocates a holistic method of tackling stress on a daily basis. Teachers have to think of it as a new way of teaching while trying to maximize learning at all times. The study will now further elucidate the model’s suggested methods of classroom integration.

Lecture component

Stress management skills can be introduced through classroom lectures. Let us consider an organizational behavior course - stress management skills can be talked about at length within several organizational behavior topics; however, the most appropriate and fitting would appear to be that of conflict. Through his or her lectures, the pedagogue can discuss how conflict and unsavory incidents in the workplace might be a direct result of stress. This would then provide segue into topics such as retaliation (Skarlicki and Folger, 1997). Similarly, in a course on human resources, the pedagogue could introduce some knowledge of stress management skills; in a lesson on how HR managers and personnel prevent employees from becoming stressed in a time of layoffs at the parent organization (Wiesenfeld et al., 2001).

Another topic that might be worth visiting and could lead to good discussion is the effect of job stress on performance (Muse et al., 2003). In a recent meta-analysis, Muse and colleagues found that 24 of 52 empirical studies investigated, supported a negative linear relationship between job stress and job performance. In a class on strategy, stress management skills could be discussed in the context of mergers and acquisitions and how they
actually cause stress to the employees of the two firms (Matteson and Ivancevich, 1990). The topic might also lead to a very engaging conversation when discussing the ability of the TMT to successfully take a firm through an initial public offering (IPO). Not all TMT teams can handle the demands associated with an IPO, including the rapid growth expected from such firms. Managers must learn to cope with decreased flexibility in managerial discretion, increased oversight from the board of directors, greater demands from investors for short-term performance, and less tolerance of negative press and performance instability (PriceWaterhouse, 1995).

In a course on business ethics, the pedagogue could initiate an interesting debate about whether stress has a role to play in unethical decisions (O’Fallon and Butterfield, 2005). In a class on international business, the pedagogue could talk about the origins of different stress management skills. Perhaps, stressing (no pun intended here!), for example, that Yoga and Qigong are two stress management skills that originated in India and China respectively, and then lay a groundwork for further lectures on international management styles (Cullen and Parboteeah, 2007). The study has selected these five courses to illustrate our model, as these are typical management school courses and are often degree requirements for undergraduate and graduate students. In addition to these academic lines of thought, the pedagogue could mention other research results such as the role of nutrition and exercise in improving one’s mood and reducing stress (Spillman, 1990; Kim and Kim, 2007).

Project component

Finally, the model includes a project component. While it might not be feasible for an entire class to be given a stress-related project, it is quite feasible for at least a few groups in a particular class to be given a stress-management-related project. In a principles class, for example, the teacher could assign a list of management-related topics for students to research throughout the semester. The study found such an exercise to be very beneficial to students, given the lack of class time available for in-depth study when a large amount of material is covered. The goal is to introduce students to all management topics (from employee motivation to a firm’s international mode of entry). The study found that students respond well to being given a list of topics and having the freedom to pick one that they enjoy and want to explore. Potential topics include: stress, time management, CEO compensation, women in management, negotiation, first mover advantage, personality types, power and influence, and other very interesting topics that educators rarely have time to tackle. This project was used a number of times and each time, stress was chosen for study by at least one group. Groups are asked to list their top two choices for instructor approval (to minimize topic overlap). The project includes written and presentation components. The presentation usually attracts many questions from students which usually lead to insightful class discussions. Students seem generally very eager to learn about the topic of stress.

In a strategy class for instance, a student group could interview several CEO’s or top management folk and find out about their stress management techniques. This could be a part of a larger project that expects the students to analyze or consult for a certain company. A similar project could be conducted on employees for an OB class – or if gaining access to professional employees is hard, a student group could conduct the same project on a sample of students and find out some techniques from their peer group, which they would then present to their classmates. Another possible project is to have students select a trade book on the topic and prepare a written summary. This summary could include a synopsis of the main findings, discussion of the contents of the book, and special focus on the main takeaways from the book. Students could then be assigned to either present the summary to the class or their group (as a roundtable discussion approach). After the
presentations are complete, time should be given to the groups/class to further explore any interesting topics.

Finally, it is the contention that all three components of our model are basically in sync and can be juxtaposed in a course context. A pedagogue should not have to be unduly taxed when introducing all three components into his or her classroom. The benefit of doing so is that students are armed with the skills to combat stress, and thereby, avoid the debilitating effects of anxiety and depression.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

Stress and its resultant anger are becoming more and more prevalent, not to mention harmful to our society. Anger can lead to violent acts resulting in damages to property or people. One way to address the deleterious effects of stress is to control or reduce stress by imparting stress management skills to students. In this way, students would possess the tools they need to manage their own stress, and perhaps others’ stress as well. This skill should stand them in good stead in their professional and personal lives.

One limitation of the article is that it is a wholly theoretical piece, albeit derived from earlier empirical pieces. Another limitation is that previous research in this arena has focused on general student populations, nursing students, and counseling students, therefore, one might ask whether business management students would vary in their response to stress as compared to other student populations. The study responds that management students may or may not have different levels of stress than other groups. It is, however, indisputable that they will have similar reactions to stress. Therefore, a management educational model to impart stress reduction skills to students is imperative. We have tried to provide this through our model.

Future research could benefit from a longitudinal study evaluating the benefits to students of our model. Qualitative studies could also be designed to gauge students' perceptions and attitudes towards our model.

Finally, the study would like to conclude by sharing a ski instructor’s words to one of the authors of this study, “you only learn to ski, when you learn to fall.” While that might be admirable logic in the world of skiing, one hopes that our students, Jack and Jill, do not fall down the hill. With the skills taught through the integrative management educational model, we hope, and are fairly confident, that they will not fall, but instead will recognize and be able to successfully manage the steep risks of stress.

REFERENCES


