Yoga for stress reduction and injury prevention at work

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Abstract. At work employees face numerous psychological stressors that can undermine their work performance. These stressors, stemming from a variety of possible causes, have enormous health and financial impacts on employees as well as employers. Stress has been shown to be one of the factors leading to musculo-skeletal disorders (MSDs) such as: include back pain, carpal tunnel syndrome, shoulder or neck tension, eye strain, or headaches. Yoga is an ancient form of exercise that can reduce stress and relieve muscular tension or pain. Practicing yoga at the workplace teaches employees to use relaxation techniques to reduce stress and risks of injury on the job. Yoga at the workplace is a convenient and practical outlet that improves work performance by relieving tension and job stress.

Keywords: Relaxation, stretching, exercise, musculo-skeletal disorders, work performance

1. Introduction

Everyday, employees cope with various forms of stressors on the job. Increased risk for psychological and physical disorders may be due to emerging work-related trends such as: working in repetitive and monotonous tasks, performing in a fast-paced environment, or fearing a layoff during an unstable period in the economy [11]. Psychological stress can be induced by extremely low or high demands on the individual and is a typical situation of many simple and repetitive work situations in which health problems are common [14]. Burnout is a growing problem in businesses everywhere. “Increasing numbers of executives are plain worn out, complaining of fatigue, anxiety, and ennui” [4, pp. 88].

These factors have innumerable health and financial implications for both employees and employers. “Mental and emotional states can impinge upon and alter, for good or ill, any of the body’s organs or systems” [6, pp. 139]. Low job satisfaction and little variation in job task are significantly associated with back and shoulder pain [1]. The majority of headaches that people experience are tension headaches resulting from chronic contraction of neck and shoulder muscles [6]. “With more and more people spending greater amounts of time at the computer, the number of people suffering from carpal tunnel syndrome, the most common type of repetitive strain injury, is on the rise” [12]. Job stress also may impact on an employee’s mental health and may cause depressive, anxiety, or paranoid symptoms [4]. Costs to employers are considerable in terms of absentee rates, loss of productivity, and consumption of health care [26]. Unfortunately, the stigma of “mental health disorders” or “stress-related disorders” thwarts many companies from becoming involved in occupational mental health and stress management [18]. Yet, there has been increasing attention drawn to the legal responsibility of companies for health risks and disorders resulting from job stress [8].

According to Jacobson [10], 48 middle to large-sized Fortune 1000 companies ranked “improving mental health” as one of the top three priorities for their companies. Yet, a health promotion and prevention report from the U.S. Government [25] illustrated that mental health initiatives were not even placed in the top six
priorities. Although some companies have supported mental health promotion for their employees, there has not been a “focused national strategy in the United States to advance the mental and psychological health of individuals in the workplace” [18, pp. 48].

2. Framework for stress at work

According to Ilgen [9] the workplace is an appropriate and important setting in which to deal with these “crisis proportion” health issues. For many, the worksite is a “prime locus of activity” where employees spend the majority of their days and where the worksite is a vital setting to advance healthy lifestyles [19]. Quick [18] employs a three-tiered prevention framework for dealing with stress-related health issues in the workplace. Primary intervention aims at “eliminating, reducing, or altering worksite demands” (e.g., task redesign programs). Secondary prevention aims at educating individuals on skills to manage stress (e.g., corporate fitness programs and relaxation training). Tertiary prevention aims at relieving suffering resulting from worksite demands (e.g., psychological counseling). Although primary intervention may be the preferred initial starting point, circumstances do not always allow for this to transpire due to individual traits and situational circumstances. Therefore, secondary prevention “seems to be the stage at which we most often begin” [18, pp. 50].

Corporate health programs that do exist in the United States emphasize physical fitness and exercise [7]. Weiss, Fielding, and Baum [27] report that lifestyle change is also a strong emphasis of corporate health programs. For example, Johnson and Johnson provides a worksite wellness program to its employees called, Live for Life. This program enhances well-being through motivation and behavioral modifications. Lifestyle change is emphasized through weight reduction and control, nutrition education, and stress management.

Sarno [21], a medical pioneer who has helped thousands of patients overcome their back conditions without drugs or surgery, states that the pain and tension felt in the neck, shoulder, and back are not mechanical problems and therefore, cannot be cured by mechanical means. These symptoms are related to people’s feelings and their personalities. Thus, the focus of treatment should be working with the mind. According to Sapolsky [20], “a critical shift in medicine has been the recognition that many of the damaging diseases of slow accumulation can be either caused or made far worse by stress” (pp. 3). Yet, Neal, Singer, Schwartz, and Schwartz [15] claim that, overall, mental health education in corporate health programs is lacking. Therefore, an essential factor of the prevention strategy is education. One approach that teaches employees how to prevent or reduce risks of stress is Hatha yoga.

3. Yoga for stress reduction and injury prevention

Hatha yoga, an ancient mind-body exercise that incorporates breathing and postures to unify and relax the mind and body, has recently been introduced to the American workplace [13,23]. Offering yoga to employees is a convenient and practical way to relieve tension from stresses on the job and educates employees to decrease risks of injury. The breathing and postural techniques can be used “as a means of quietly and unobtrusively coping with the crises that occur during the working day” [8, pp. 132]. Yoga can be taught at group lunchtime workshops or after work hours in any space available at the work site, e.g., a conference room. Once employees learn the techniques from a certified teacher, they can independently practice the techniques in their own workspaces.

Practicing yoga has been shown to reduce pain, relieve tension, reduce risks of injury, improve posture, improve communication, increase energy and attention span, and enhance feelings of overall wellness and well-being [5,6,12,16,17,24]. In an empirical research study, participants in a yoga-based regimen demonstrated improved grip strength and pain reduction in the carpal tunnel area of the wrists [6]. No other empirical research studies on the effects of yoga on MSDs exist.

Physiologically, yoga relaxes the body and mind [22]. When employees are at work, focusing on productivity, deadlines, meetings, and phone calls, the sympathetic nervous system (otherwise known as the “Fight or Flight” system) kicks in. Heart rate, breathing, blood pressure, and adrenaline are increased. Also, in this focused state of work, employees may be unaware of their body positioning and motions and unconcerned about maintaining good postural alignment or taking rest breaks from repetitive movements.

Yet, when the individual is practicing the postures, deep breathing, and stretching movements of yoga while working, he or she increases awareness of his or her body positioning and motions and can elicit the relaxation response. In this case, the parasympathetic nervous system kicks in where muscle tension is re-
duced, less oxygen in consumed and less carbon dioxide is eliminated, and there is a decrease in the activity of the sympathetic nervous system [22]. Breathing is the only system bodily function that is involuntary as well as voluntary. “If you can learn to control your breath, you can learn to control, or at least influence, how you feel both emotionally and physically” [5, pp. 17]. In comparison to job stress, yoga has a dramatic and opposite effect on the body: decreased heart rate, breathing, and blood pressure. Being mindful of the body helps break the poor postural habits and encourages rest breaks from repetitive motions that may contribute to pain and risk for MSDs, thereby decreasing risks of injury. Yoga techniques are prevention skills for life.

Although yoga is based on exercises and poses, it is done “without the possibility of further stressing an already stressed-out body” [5, pp. 15]. Yoga classes begin with warm-ups such as head rolls or shoulder rolls. Classes continue with a series of standing, sitting, supine, and prone poses, most of which can be adapted to the sitting position. Finally, once the spine is completely warmed-up, classes may end with a spinal twist and a deep relaxation.

A small independent study on the effects of yoga at the workplace showed that the participants who took the yoga classes had fewer absentee days due to illness or physical problems, experienced less tension and stress, and had a greater overall feeling of well being than those who did not participate in the yoga classes. Employees also showed enhanced company morale and improved communication skills at work [16]. In addition, employees who used a visual analog rating scale to measure levels of stress and musculo-skeletal pain before and after a lunchtime yoga workshop at a telecommunications company in Pleasanton, CA and a law firm in Oakland, CA demonstrated a high drop in stress and musculo-skeletal pain (See Tables 1 and 2).

Currently, yoga classes are being offered by In-Alignment, Inc. at four corporations in the Bay Area including: The Livermore National Laboratory (10,000+ person government agency), SBCLD (450+ person telecommunications company), Navis (250+ person software company), and Crosby, Heafey, Roach, and May (350+ person law firm). 45 minute classes are offered either during the lunch break (e.g., 12:00–12:45 p.m.) or after hours (e.g., 5:00 p.m.–5:45 p.m.) and educational themes are incorporated into each session. Themes range from breathing techniques, body awareness, postural alignment, and more. There is a minimum of 6 and maximum of 10 persons per class. Between 2 and 5 classes are offered at each company per week.

The Livermore National Laboratory is, as of now, the only company that has completed the 8-week In-Alignment, Inc. series. Evaluations of the class suggest that employees have found significant benefits from participating in the classes. S.A., a computer programmer at the “lab” wrote, “I find myself using what I learned in the yoga classes here at my workspace. The techniques help me release tension gained from working at the computer all day long. The breathing techniques were most beneficial in releasing emotional or physical stress from the workday.” Another employee, B.I., a physicist at the lab wrote, “I have certainly increased general awareness of my body and thoughts. The themes in each class provided a good way to remember to incorporate the techniques at work. I have improved my ability to concentrate and have also recognized I have the potential to be much more productive at work.” Besides the qualitative data that employees have offered as feedback, no quantitative data regarding longevity of the stress reduction throughout the day or improvements of work performance exists at this time. More research is needed in this area.

4. Conclusion

On a daily basis, employees face stressors while on the job. This stress may affect the employee’s physical and psychological well-being as well as the employer’s finances and company morale. “As corporate America rolls out the mats in the workplace, it has discovered the value-added benefits of yoga” [23, pp. 69]. Corliss [3] claims that “Americans rush from their high-pressure jobs and tune into the authoritatively mellow voice of an instructor, gently urging them to solder a union between mind and body. These Type A strivers want to become Type B seekers... to graduate from distress to de-stress” (pp. 54). With increased clarity and mental acuity, employees can return to their workdays with improved communication, enhanced teamwork, and increased productivity. “The resulting unification of body and mind... can have powerful benefits for the rest of one’s life, especially stress-related woes associated with professional’s hectic lives” [2, pp. 79].

Hatha yoga has been shown to relax the body and mind thereby promoting overall improvement in mental and physical health and well-being. Yoga at work is a convenient and practical needed outlet for work-related stressors. Yoga at work teaches employees relaxation...
techniques to decrease tension and pain as well as prevention strategies to reduce risks of injury on the job, thereby improving work performance.

References

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