

2018

Perceptions of Stress: Employee Participation in a Yoga Class

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Walden University

College of Health Sciences

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Rosemarie Lee

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2017

Abstract

Perceptions of Stress: Employee Participation in a Yoga Class

by

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MSN, University of Phoenix, 2013

BSN, New York University, 2002

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

November 2017

Abstract

Employees experience workplace stress that can affect their health resulting in chronic diseases such as diabetes, stress, hypertension, and cardiovascular diseases. Stress also contributes to staff presentism, absenteeism, and high turnover rate. The employee wellness program (EWP) yoga class at a metropolitan teaching hospital has not been evaluated for its effectiveness in employee stress reduction and improvement in employee health. The practice focus question for this project explored employees' perception of the impact of a metropolitan teaching hospital's EWP yoga class on their stress reduction and health promotion activities. The theoretical framework for this project is Lazarus' transactional model of stress and coping. This model suggests that individuals assess the stressor and find strategies for coping with the stress as it relates to them and their environment. The evidence that guided this project included a comprehensive literature review and the analysis of data retrieved from semi structured interviews with 20 participants in the yoga class who responded to an open invitation. Audiotaped interviews with the participants were analyzed and coded for common themes and revealed that participating in the EWP yoga program helped to reduce their perceived stress and improve their mental and physical well-being. The findings of this project were used to inform organizational leadership and may provide opportunities to evaluate the current yoga program regarding employee stress reduction, improving healthy activities, expansion of the program to other work sites within the organization, maintaining a healthy workforce, and reducing health care costs.

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Acknowledgments

First, thanks to God for helping me throughout this journey. Without my firm trust and belief in Him, I would not be able to make this journey. I am grateful and thankful to my family, friends, and coworkers and to have worked with the staff at Walden University, especially a phenomenal chair, Dr. Diane Whitehead. Dr. Whitehead, you have been a mentor and strong advocate for my doctoral studies by guiding me to transition from a practitioner to a researcher and for that I am most grateful. You are an educator and your interest in seeing your students succeed says volumes. Thanks to my husband and my three wonderful daughters who have been patient with me from start to finish the past 3 years.

To my coworker, Tzu-Ching Lu who has been a support to me throughout this journey, thank you. Dr. Nadine Drescher, thank you for your support and encouragement. To the staff at my practicum: site thank you. Thank you to the Integrative Health team. A very special thank you to Jeanne Abate Marco who has been a source of strength and support since we first met. Robert Sirianni, Amy Eberhardt, Amy Gissen, and Ilene Masser, thank you. Thank you to Dr. Mary Kiely my mentor for your guidance and encouragement. Dr. Cherise Francis-Sterling thank you for your inspiration. Thank you to the staff at the Division of Prevention and Primary Care at NYC Department of Health and Mental Hygiene for your assistance. A heartfelt thank you to the staff who participated in the interviews and in making this project possible.

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Section 1: Nature of the Project

Introduction

Employer health care costs have increased significantly due to the increasing health issues of the employees (Thomley, Ray, Cha, & Bauer, 2011). There is evidence that employees experience occupational stress and burnout, compassion fatigue, and often lack self-care that can affect their ability to function effectively (You, Aiken, Sloane, Liu, & He, 2013). The occupational physical and mental stressors associated with employees' daily work influence their performance and affect the caregivers and patients (Farquharson et al., 2012; You et al., 2013). Occupational stress can lead to physical and mental health issues including, hypertension, depression, presentism, weight issues, and cardiac diseases (Donovan, Doody, & Lyons, 2013).

Work-related stress accounts for many employees' occupational health risks (The Centers for Disease Control and Prevention [CDC], 2015a). Also, employer high health care costs can result from employee chronic diseases and related unhealthy lifestyle choices. Employers lose over approximately \$225 billion annually due to employee absences from illness resulting in low productivity (CDC, 2013; CDC, 2016).

The development of employee workplace programs (EWPs) is the result of provisions of the Affordable Care Act (ACA) of 2010 (United States Department of Labor, 2014). These provisions focus on improving employee health and wellness. The design for the ACA includes public health training, clinical health prevention, community health prevention, and research (Anderko et al., 2012). Organizations develop EWPs hoping that employees will participate in the programs and make alternate lifestyle

choices to prevent the development or advancement of various chronic diseases (Carter, Kelly, Alexander, & Holmes, 2011). By reducing insurance costs and managing chronic health conditions of employees, the EWP not only provides strategies for employees to improve health and well-being but assists in reducing escalating insurance costs for the institution (Hymel et al., 2011). One of the benefits of this hospital's wellness program is the yoga program for the employees.

Problem Statement

Occupational stress or burnout affects the physical and mental health of individuals and is a major concern for health care providers. Stress and burnout are occupational hazards that can result in chronic diseases, staff absenteeism, and sometimes a high rate of staff turnover (Tucker, Weymiller, Cutshell, Rhudy, & Lohse, 2012).

These chronic diseases are significant health issues that can result in a change in individuals' quality of life. Employees may participate in a hospital employees' wellness yoga program for several reasons: (a) to improve personal health, (b) explore health risks, and (c) manage occupational stress or burnout (Cancelliere, Cassidy, Ammendolia, & Côté, 2011). The purpose of this project was to explore employees' perceptions of a metropolitan teaching hospital's EWP yoga program regarding stress reduction and health promotion. An effective yoga program for reducing employees stress will improve productivity and health promotion.

Purpose

Health care workers experience work-related stress, such as variations in work shift schedules and the effects of the physical working environment (Chiou, Chiang,

Huang, Wu, & Chien, 2013). Individuals' with unhealthy lifestyles can be absent from work due to illness, ill health, low productivity, and lack of ability to work efficiently. EWPs aim at improving employees' lifestyle and consequently health improvement, productivity, and improving their work activity (Rongen, Robroek, van Lenthe, & Burdorf, 2013). The gap in this EWP yoga program is to determine if employees participating in the program experience a change in their perceived stress and health promotion. According to Neville, Merrill, and Kumpfer (2011), long-term participation in employer-based workplace health programs positively affects individuals' health. According to the CDC (2013), in 2014, 73% of small corporations and 98% of large companies offered at least one wellness program to improve employee health. The purpose of this Doctor of Nursing Practice (DNP) project was to examine the hospital's Made for Your Health EWP yoga program to determine its effectiveness in reducing employee stress, improving their health, and self-care. The practice focus question was: How do participants in an EWP yoga class perceive the impact of the program on their stress reduction and health promotion activities? The project will demonstrate that: (a) informed stakeholders and decision makers will evaluate the program for employee accessibility including nurses; (b) based on the evidence from the information collected from the participants, will demonstrate the need to expand the program to other sites and help in improving workforce health, and (c) yoga practice may contribute to improving the delivery of services, may show a return on investment (ROI), and improve patient satisfaction.

Nature of the Doctoral Project

The hospital's yoga program has not been evaluated therefore there is no evidence showing that the program is effective in improving the health and well-being of its employees and reducing their perceived stress experience. The program lacked documentation on participants' responses to the program. There are no follow-up measures to identify the effectiveness of the program to employee health.

The purpose of this DNP project was to explore the perceptions of the participants in an EWP yoga program related to stress reduction and health promotion activities. The project included semi-structured interviews with the participants in the yoga program. The interviews explored participants' perceptions related to the impact of the program on their stress reduction and health promotion activities.

EWPs are beneficial to employees in health promotion and wellness, and employers may see a ROI when their employees engage in these EWPs. Yoga has been beneficial to decreasing employee perceived stress (Bernstein et al., 2015; Huang, Chien, & Chung, 2013). I demonstrated that participating in a yoga program is therapeutic and this can be helpful in alleviating employees' perceived stress and ultimately assist in the promotion of healthy behaviors and activities, by connecting the gap in practice to the findings from the data analysis.

Significance

Stakeholders

Quality care and quality improvement should be a part of any health care organization's vision, values, and mission. Employee health promotion should be a

priority for the organization's vision, mission, and goals (American Hospital Association [AHA], 2011). The stakeholders must implement appropriate strategies to achieve organizational goals.

The rising costs of employee medical claims resulted in a collaboration between the government and organizations to make changes in the workplace as measures to control their health care costs. These actions required employers to adopt and develop EWP as strategies to encourage their employees to develop healthier behaviors thereby decreasing their risk of developing chronic diseases (CDC, 2013). Many studies revealed that the high risk of occupational injury could be from fatigue that results in the employees' inability to function effectively (Cancelliere et al., 2011; Fiabane, Giorgi, Sguazzin, & Argentero, 2013; Hymel et al., 2011; & Sharma et al., 2014). Thus, the hospital's Made for Your Health wellness program incorporates various departments and stakeholders within the hospital. These stakeholders include the dean, chief nursing officer, the board of directors, upper-level management, the integrative health and employee benefits departments, employees, and patients.

Contributions to Health Care Practices

Stress affects individuals' physical and psychological being (CDC, 2015b; Keller et al., 2012). Job-related stress also results in high health care costs sustained from employees. Job-related stress influences individuals' health and behaviors such as alcohol consumption, smoking, and decreased physical activity (Roberts & Grubb, 2014). Job satisfaction can be influenced by job-related stress (Roberts & Grubb, 2014). Psychological effects of stress include depression, feelings of inadequacy, low self-

esteem, lack of self-care, and somatic disturbances (Farquharson et al., 2012; Roberts & Grubb, 2014).

Potential contributions of this doctoral project to nursing practice include adding evidence-based practice, based on the benefits of yoga to health that may help to reduce occupational stress experience and promote healthy activities or behavior, resulting in improved delivery of patient care and outcomes. Transferability of the project to similar practice areas would help employees in these sites participate in the program and assist in the development of a culture of health. These attitudes would reduce illnesses and improve services.

The development of the hospital's EWP was based on the dean of the hospital's vision and goals in maintaining a healthy workforce and ensuring that the hospital provides excellent and quality service to its patients. The realization of this vision of a healthy workforce came through the EWP. The ACA is also a motivator for the development of the EWP. The inception of the EWP serves as an incentive and motivation for employees to improve their health. One of the benefits of the EWP is the employee yoga program. Participation in the yoga program may help employees with stress reduction and health promotion. The employees, however, must initiate self-reflection of their perceptions of self-care, health promotion, and health maintenance. Employees must understand and be aware when they are experiencing job stress. According to the CDC (2015a), signs of workplace stress include headaches, irritability, difficulty concentrating, low morale, and other symptoms. These symptoms can lead to cardiovascular diseases, workplace injuries, and psychological disorders.

The EWP program is an important feature of the hospital's mission. However, there is no formal documentation showing that the yoga program is effective in promoting employees' health or reducing stress. Evaluating the program's effectiveness in employee stress reduction and health promotion is critical for all stakeholders. This information is valuable in determining if the program needs reassessing or if developing other programs would be beneficial to decreasing stress and improving employees' health and well-being.

Contributions to Social Change

The health of the organization's workforce plays a significant role in its financial success and the health of the population (Cancelliere et al., 2011). If employees are not in a good state of health, it can potentially have a negative effect on their performance (Cancelliere et al., 2011; Farquharson et al., 2012; Merrill et al., 2013). The expected impact of the hospital's yoga program is the improvement in employees' health and stress reduction. Undertaking this project has the potential for social change. The belief is that providing interventions for reducing occupational stress such as yoga classes, mind-body activities, recognition, improve communication, and incentives are necessary strategies to modify employee health behaviors and improve organizational progress (Bono, Glomb, Shen, Kim, & Koch, 2013; Huff & Ablah, 2016). Evaluation of the yoga program helped in providing valuable information on lifestyle modifications that employees can make after their participation in the program. The results of the post program participation indicated that the program made a difference in their perception of stress, self-care, health, and well-being. Reduced stress and illnesses and physical and mental stability,

contribute to an individual's state of well-being (Farquharson et al., 2012; Nantsupawat, Nantuspawat, Kunaviktikul, Turale, & Poghosyan, 2016).

A change in employee self-care and health awareness may influence their performance, increase knowledge of health promotion, self-care, health maintenance, and satisfaction of their patients and families, and other individuals in the communities. An implication for positive social change is providing valuable information that would help in organizational outcomes for employee health, satisfaction, and wellness programs. Increasing employees' knowledge and awareness of their health have the potential to improve community health promotion, health maintenance, and economic or financial gains to the hospital due to patients' satisfaction and reimbursement (Kaspin, Gorman, & Miller, 2013; Pronk, 2014). Evidence has shown that employee health and wellness programs have provided positive benefits in modifying the risk factors of cardiovascular disease (CVD) in both healthy individuals and individuals already diagnosed with the disease (Arena et al., 2013). A positive outcome of the yoga program is helping employees to educate their families and communities on self-care and health promotion especially since the hospital has expanded its services into various communities. Some of these communities are low-income communities and communities of individuals that may have difficulty accessing quality health care. Expanding health care services in these communities are strategies of establishing a standardized level of care to all individuals within the organization's health system. Developing health promotion and awareness in diverse communities complies with Healthy People 2010's goal of achieving healthier communities regardless of gender, sex, race, education, geographic

location, and disability (United States Department of Health and Human Services [DHHS], 2014). When employees develop a culture of wellness, they can share this valuable information in their communities. An individual's health plays an integral part in the health of those individuals in the community, and the community's health has a connection with the general population (Anderko et al., 2012).

Summary

Improving public health is possible with the development of a workplace culture of health promotion. The ACA supports health promotion by focusing on prevention and maintaining health and lifestyle modification through employee wellness programs (Anderko et al., 2012). A decline in employees' health results in increased employee health-related costs due to presentism and absenteeism. The hospital's yoga program is a strategy to improve and maintain employees' health and lifestyles. The yoga program may help to decrease or prevent various health issues; however, the program needs a formal evaluation to determine its effectiveness in reducing stress and improving employee health behaviors.

Section 2: Background and Context

Introduction

Employees experience occupational stress that can affect their health and well-being (Tucker et al., 2012). This decline in the health of the employees can result in an increase in chronic diseases resulting in increased absenteeism and high health care costs to the employer (Anderko et al., 2012; CDC, 2015). This increase in employee illnesses in the workforce has motivated employers to develop wellness programs to help employees improve their health and maintain healthy behaviors (Anderko et al., 2012). The practice-focused question was: How do participants in an EWP yoga class perceive the impact of the program on their stress reduction and health promotion activities.

Concepts, Models, and Theories

Lazarus' Transactional Model of Stress and Coping

This project used Lazarus' transactional model of stress and coping (TMSC). The TMSC model provides the opportunity for evaluating the various processes of individuals coping with stressful situations. The TMSC model focuses on the individual's perception of a stressor, different ways of coping with a stressor, past experiences, and personality type (Smith, 2012). The model emphasizes the individual's stress experience and social support. This model explores individual threats, challenges, and harmful situations that result in an inability to cope with stressful events (Lazarus, 1966). In this model, a stressful experience is described as a transactional experience, one that is dependent on the individual's perception. When individuals encounter stressful situations, they evaluate the potential threat, assess the situation, and generate coping efforts concerning

the issue or stressor. Employees with an awareness of their stress level can devise strategies for managing and coping with their stress. The TMSC theory can serve as a foundation for the EWP that enables behavioral health changes through the benefits of the yoga program.

Definition of Terms

Stress

Stress is a mental reaction that results in a physical outcome. Toh, Ang, and Devi (2012) identified stress as the physiological response that manifests itself in a psychosomatic manner such as a headache and hypertension. Toh et al. (2012) further defined stress as a disconnection between the individual's ability to cope with the situation or stressor. According to Cohen, Kamarck, & Mermelstein (1983), perceived stress is an individual's appraisal of their life situation as being stressful. Stress reduction or stress management is a skill that employees develop to improve their ability to cope with stressful occupational situations, as defined by National Safety and Occupational Institute (NIOSH, 2014).

Workplace Health Promotion

The CDC (2015b) defined workplace health promotion as “a coordinated, planned, and organized set of programs, policies, benefits, and environmental support designed to meet the health and safety needs of all employees” (para.1). Healthy People 2010 defined EWPs as programs that provide health education, integration into an organization's structure, environments that support the social and physical needs of

individuals, access to employee assistance programs (EAP), and worksite health screenings (CDC, 2015b). These terms will be used throughout the discussions.

The ACA's introduction of EWP allowed employers to provide programs for their employees to improve their health. There are, however, regulations outlined by the ACA preventing employers from discriminating against their employees' participation in the programs based on their genetic information, health status, and disability (Pollitz & Rae, 2016). There are exceptions for wellness programs by regulatory bodies such as The Employee Retirement Income Security Act (ERISA). ERISA offers premium or cost-sharing discounts to individuals with certain health conditions (Pollitz & Rae, 2016). The Health Insurance Portability and Accountability Act (HIPAA) outlined standards and laws to protect individuals' privacy regarding their health information. These laws protect individuals who are participating in EWP. There are standards and legislation covering employees in wellness programs and employers are required to uphold these requirements of keeping employees' medical information confidential regardless of the methods of collecting the information.

Relevance to Nursing Practice

Numerous studies revealed that nurses experience occupational stress that includes shift work and the nursing duties resulting in various physical and mental illnesses (Alexander, 2013; Farquharson et al., 2012; Huff & Ablah, 2016). The hospital's EWP incorporates various strategies such as walking programs, weight management, exercise programs such as gym memberships, smoking cessation programs, and other programs that assist with stress reduction and promotion of a healthy lifestyle.

The implementation of EWP has shown improvement in financial benefits to organizations and employee morale (Carter et al., 2011; Kaspin et al., 2013; Sorrell, 2015). The practice focus question was: How do participants in an EWP yoga class perceive the impact of the program on their stress reduction and health promotion activities?

The implementation of the ACA gave rise to the need for more advanced practice nurses (APN) such as the DNP nurse. The DNP nurse has the capability to provide health promotion in various areas through leadership and collaborative interdisciplinary efforts (Institute of Medicine [IOM], 2010; Lathrop & Hodnicki, 2014). The employee yoga program will be helpful to nurses by providing opportunities to change and manage their coping strategies. A healthier workforce increases productivity and decreases health care costs (Merrill et al., 2013). Yoga therapy has increasingly become a part of nursing practice in helping patients with stress reduction and employers have similarly provided these programs to help in improving employee stress, productivity, and health.

Existing Scholarship

The databases and search engines explored for current evidence included CINAHL, Google Scholar, ProQuest, PubMed, and Medline. Keywords used for the literature review were *employee wellness programs*, *stress*, *occupational stress*, *yoga*, *workplace wellness programs*, *yoga and health*, and *stress and yoga*. The search was narrowed down using Boolean searches such as *yoga and stress* and *yoga and health*. The literature review yielded 300 peer-reviewed articles from the years 2011 to 2017.

The pool of articles was narrowed down further, to *yoga*, *stress*, and *health*, and 114 articles were reserved and used for the literature review.

A close evaluation of the quality of the literature was graded based on Melnyk and Fineout-Overholt's pyramid level of evidence. The analysis of the evidence revealed 39 summaries of Level I, 11 summaries of Level II, eight summaries of Level III, 18 summaries of Level IV, one summary of Level V, 21 summaries of Level VI, and 16 summaries of Level VII on the topic of interest (Table 1). Table 1 shows the hierarchy of the evidence reviewed. The literature review matrix (Appendix A) was used for summarizing and organizing the articles to ensure that the necessary information was included in the discussion on the DNP project proposed for the hospital's employee yoga program.

Table 1

Hierarchy of Evidence

Level	Description	Articles per Evidence
I	Evidence from a systematic review or meta-analysis of randomized controlled trials (RCTs)	39
II	Evidence from at least one well designed RTC.	11

(table continues)

Level	Description	Articles per Evidence
III	Evidence from well-designed control trials without randomization.	8
IV	Evidence from well-designed case – controlled and cohort	18
V	A synthesis of evidence from systematic review of qualitative or descriptive studies	1
VI	Evidence from a single qualitative or descriptive study	21
VII	Evidence from authoritative opinions from experts	16

Melnyk, B. M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice* (2nd ed.). Philadelphia, PA: Lippincott, Williams, and Wilkins.

Occupational Stress

Occupational stress is a result of the working environment and the worker, and therefore, working conditions are primarily responsible for job stress (NIOSH, 2014). Stress can affect the physical as well as the mental status of individuals and lead to various chronic diseases. The workplace for health care workers is changing, and these

workers are experiencing higher levels of stress that affect not only health care workers but also health care organizations (NIOSH, 2014). Medical doctors and nurses reported that excessive workload resulted in increased turnover, presentism, chronic diseases such as diabetes and hypertension (Bono et al., 2013; Dhabhar, 2014; Huff & Ablah, 2015). Various studies (see Djindjic, Jovanovic, Djindjic, Jovanovic, & Jovanovic, 2012; Donovan et al., 2013; Keller et al., 2012; Landsbergis, Dobson, Koutsouras, & Schnall, 2013; Steptoe & Kivimäki, 2012) revealed a direct link between occupational stress and chronic diseases such as diabetes, hypertension, and cardiovascular diseases (CVD). In contrast, Cosgrove, Sargeant, Caleyachetty, and Griffin (2012) found that occupational stress has no direct significance to an increased risk of Type 2 diabetes. The literature however, showed that occupational stress can lead to various chronic diseases such as hypertension. The link with these chronic diseases are due to different factors such as role conflict, working conditions, workload, shift assignments, workplace relationships, noise, and physical demands of the job (Adriaenssens, De Gucht, & Maes, 2015; Backé, Seidler, Latza, Rossnagel, & Schumann, 2012; Khamisa, Oldenburg, Peltzer, & Ilic, 2015; Sharma et al., 2014). CVD can be a result of occupational stress and has been linked to high morbidity and mortality however, despite the decrease in mortality from chronic heart diseases there is increasing prevalence of CVD (Backé et al., 2012). The association of occupational stress can negatively affect individuals' emotional, psychological, behavioral, and cognitive responses to real or imagined stimuli that they perceive as a threat to their well-being (Dhabhar, 2014; Donovan et al., 2013). Kivimäki and Kawachi (2015) found that the association between occupational stress and the risk

of CVD is high regardless of gender or age. Nyberg et al. (2013) argued that occupational stress is linked with a higher prevalence of diabetes, that results from adjustable health behaviors such as smoking. Although job strain affects the risks of diseases, Nyberg et al. (2013) argued that there is no clinical difference in the lipids levels and blood pressure or symptoms of hypertension. Dhabhar (2014) found that the length of time that individuals experience their perceived stress can have a positive or adverse effect on the immune system. Short-term stress experiences allow the body to respond in an immune-protective manner such as in wound healing. Bono et al. (2013) argued that positive work events are linked to employees' reduced stress and improved health. Gender roles have an association with occupational stress perception. Women experience high occupation stress than men depending on the task assignment (Herrero, Saldaña, Rodriguez, & Ritzel, 2012). Males with high strain jobs are three times more likely to suffer from a stroke than females with low strain jobs; females with low strain jobs as white-collar male manager with high strain jobs are found to be five times as likely to be at risk for a stroke (Tsutsumi, Kayaba, & Ishikawa, 2011). Employees experience various mental illnesses such as depression and anxiety from the effects of occupational stress. These diseases are the result of different job characteristics such as job demands, coping, and job satisfaction (Mark & Smith, 2012; Tehrani, Rakhshani, Zadeh, Hosseini, & Bagheriyan, 2013).

Occupational stress affects employee job satisfaction and organization retention. Job stress has a relationship with job satisfaction, and the level of satisfaction relates to the type of job stress that employees experience. These occupational stressors include

rewards, job workload, coping, mental health issues, physical illnesses, and compensation (Kang, Jo, Boo, & Kim, 2015; Trivellas, Reklitis, & Platis, 2013; Wang, Tao, Ellenbecker, & Liu, 2012). A comparison with physicians in Germany and those in Norway found that German physicians, experienced lower job satisfaction because of their higher risk of work-related stress than those physicians in Norway (Votmer, Rosta, Slegrist, & Aasland, 2012). Mohite, Shinde, & Gulavani (2014), argued that there is no significant association between occupational stress and job satisfaction in nurses working in tertiary care hospitals. Mohite et al. (2014) and Trivellas et al. (2013) similarly recommended that changing workload, reward or compensation, and autonomy of staff nurses would significantly improve performance. Individuals with high stress levels tend to have chronic diseases and be less active (Clark et al., 2011; Roberts, & Grubb, 2014). The health of employees can affect their level of productivity and helps to decrease presentism and absenteeism. Individuals who are inactive may need to change their health behaviors by participating in EWPs offered by their employers as this may help in reducing their stress and improving their health.

Yoga and Health

Yoga has been a part of the cultures of the Eastern world and has rapidly infiltrated into Western cultures, as many practitioners, both natural and traditional, are becoming more aware of the value of yoga to health. In the last two decades, the trend in yoga practices has increased and has gained acceptance in America, especially in the medical field (Douglass, 2007; Field, 2016). Yoga means a union and includes breathing techniques, strengthening exercises, posture, and meditation. Yoga is a systematic

practice that harmonizes the mind and body with oneself, society, and nature (Li & Goldsmith, 2012; Sharma, 2014). Sharma (2014) reported that yoga has positive benefits to individuals and reduces their stress experiences while other studies reveal significant improvement in individuals' physical and psychological well-being after practicing yoga (CDC, 2015a; Keller et al., 2012; Li & Goldsmith, 2012; Thomley et al., 2011).

Although many studies revealed the positive benefits of practicing yoga, there are conflicting arguments regarding the safety of yoga practices. Yoga is considered a safe practice. However, a survey of Japanese yoga practitioners showed that 28% of these practitioners experienced undesirable outcomes (Matsushita & Oka, 2015). The findings demonstrated that many of the practitioners were in poor physical health, were older practitioners, and suffered from chronic diseases. On the other hand, evidence from randomized controlled studies performed in the United States (U.S.), showed that yoga practice is as safe as exercising, and there is no significant difference in adverse events, whether serious or non-serious, between yoga practitioners and individuals who exercise (Cramer et al., 2015; Field, 2016;)

Yoga historically is viewed as a practice that included a broad range of techniques promoting the health and wellbeing of the mind-brain-body functions. Many of these techniques are directed to paths that lead the participants to intellectual discernment, doing service, devotion, and offered practices that helped individuals to experience a higher level of consciousness especially when they encounter future situations (Field, 2016; Jeter, Slutsky, Singh, & Khalsa, 2015; Park, Braun, & Siegel, 2015). Evidence showed the positive benefits of yoga on the psychological and physical being of

individuals. In recent years yoga practice, has shown to improve depression, post-traumatic stress disorder (PSTD), stress, anxiety, among others (Balasubramaniam, Telles, & Doraiswamy, 2012; Cramer, Lauche, Langhorst, & Dobos, 2013; Li & Goldsmith, 2012; Woodyard, 2011). This concurs with other studies demonstrating that yoga is becoming more popular in many correctional institutions worldwide, and has shown positive effects on the psychological well-being, cognitive, and behavioral functioning of the prison population (Auty, Cope, & Liebling, 2017; Bilderbeck, Farias, Brazil, Jakobwitz, & Wikholm, 2013; Muirhead & Fortune, 2016).

Yoga practices have shown to be therapeutic in helping to treat chronic diseases, such as diabetes, mental stress, hypertension, obesity, and coronary diseases (Taneja, 2014). There is evidence that yoga is used as a therapy for helping patients recovering from breast cancer treatment (Harder, Parlour, & Jenkins, 2012; McCall, Thorne, Ward, & Heneghan, 2015). While other studies show that patients with various types of cancer recorded positive physical and psychosocial benefits of practicing yoga (Van Uden-Kraan, Chinapaw, Drossaert, Verdonck-de Leeuw, & Buffart, 2013). Practicing yoga has shown to effectively lower blood pressure in individuals with a diagnosis of hypertension. Practicing certain types of yoga weekly for a period may reduce blood pressure, prevent stroke, and other symptoms of cardiovascular diseases (Backé et al., 2012; Field, 2016; Taneja, 2014). People with diabetes have shown to benefit from practicing yoga with significant improvements in their endocrine system. A study in India revealed that individuals with Type 2 diabetes practicing asana and pranayama yoga for 40 days experienced a decrease in fasting and postprandial blood glucose levels

(Taneja, 2014). Other studies have demonstrated how yoga practices positively affect the endocrine-immune response of patients with Type 2 diabetes (Balasubramaniam et al., 2012; Cui et al., 2017; Innes & Selfe, 2016; Singh, Khandelwal, & Serpa, 2015).

Practitioners in psychiatric care have utilized yoga practices to help in the treatment of patients with mental issues and have found that yoga helped in improving the symptoms of depression and other mental diseases. Daly, Haden, Hagins, Papouchis, and Ramirez (2015) conducted a randomized controlled trial in high school students (15-17) years old. The study revealed that while there is no significant relationship between the changes in emotional regulation; participating in yoga increases the capability of emotion regulation that extends beyond participating in physical education only. Ironically, however, it is found that middle school age children participating in yoga reported experiencing increased negative emotions when compared with the students in a physical education group, who reported feeling less emotional (Haden, Daly, & Hagins, 2014).

Prenatal and postpartum women have reported positive experiences with practicing yoga. These experiences include enhanced fetal growth, alleviation of feelings of anxiety, feelings of fatigue, and other high cortisol symptoms such as depression (Bershadsky, Trumpfheller, Kimble, Pipaloff, & Yim, 2014; Field, Diego, Delgado & Medina, 2013; Gong, Ni, Shen, Wu, & Jiang, 2015; Polis, Gussman, & Kuo, 2015). With this evidence, the assumption is that yoga is a valuable, safe, and effective therapy for individuals' mental and physical health and well-being.

Yoga and Stress

The literature showed that yoga has a positive effect on individuals' health and can help to reduce their perceived stress. An examination of how practicing yoga reduces stress was conducted through the review of the literature (Riley & Park, 2015). The outcome of the review showed that yoga plays a role in reducing stress and improving health by acting on various biological and psychological mechanisms such as the posterior hypothalamus, C-reactive protein, cortisol, and interleukin-6. These mechanisms resulted in mindfulness, stress reduction, self-awareness, and spirituality (Büssing, Hedtstuck, Khalsa, Osterman, & Heusser, 2012), and calmness (Li & Goldsmith, 2012; Woodyard, 2011). For example, in a stressful experience, yoga decreases sympathetic responses, such as the systolic and diastolic pressures, heart rate, and vagal activity decreases stress hormones such as cortisol (Field, 2013; Riley & Park, 2015). Bernstein et al. (2015) conducted a non-randomized quasi-experimental study to measure the effectiveness of Hatha yoga instructions on perceived stress among employees in an Intensive Care Unit (ICU). Deshpande (2012) used an exploratory study to gain a better understanding of how yoga, meditation, and humor can affect individuals experiencing workplace stress. The studies further substantiated the importance of incorporating exercise in workplace wellness, the effect of yoga practice, and its benefit in alleviating stress. These results identify with a ten-week study by Bilderbeck et al. (2013), of prisoners practicing yoga, and other studies revealing that yoga practice improved mood, reduced psychological distress, and reduced stress (Auty et al., 2017; Cramer et al., 2013; Hartfiel, Havenhand, Khalsa, Clarke, & Krayner, 2011; Muirhead & Fortune, 2016). An

interesting discovery in a study by Bilderbeck et al. (2013) is that the prisoners who were randomly assigned in the ten-week yoga program reported a change in various psychological behaviors such as mood swings when compared with those assigned to the control group. Practicing some types of yoga such as Sudarshan Kriya affected prisoners with psychiatric disorders (Sureka et al., 2014). While other studies revealed that juvenile offenders, who practiced yoga reported an increase in their self-control and a reduction in perceived stress (Bilderbeck et al., 2013; Danielly & Silverthorne, 2017; Perelman et al., 2012); reduction in substance abuse (Muirhead & Fortune, 2016); and improved mental health (Danielly & Silverthorne, 2017). Yoga is advocated as a therapy for improving individuals' health. Cho, Moon, and Kim (2015) suggested in their study the benefits of yoga on stress, by looking further at the positive influence of yoga on stress reduction and the inflammatory process in individuals with chronic low back pain. The participants in the study verbalized significant relief in their stress and pain experiences. Other studies revealed yoga participation improved individuals' well-being. Hartfiel et al. (2011) conducted a randomized trial to examine yoga's effect in enhancing worker emotional well-being and resilience to occupational stress, and increased feelings of well-being in male prisoners (Danielly & Silverthorne, 2017; Sureka et al., 2014). Roberts and Grubb (2014) investigated the impact that job-related stress has on the health and safety of nurses, and the role working conditions and job characteristics play in causing stress. The evidence from their study concurred with Hartfiel et al. (2011) that stress could have a fatal outcome on individuals' mental and physical being; while Chong, Tsunaka, Tsang, Chang, and Cheung (2011), provided evidence that individuals who are considered

healthy also experience stress, and yoga has proven to improve their stress experiences. Although occupational stress affects adults, adolescents also experience stress and anxiety when they must perform certain tasks. In a study to replicate findings on adults of the effect of yoga on music performance anxiety (MPA), Khalsa, Butzer, Shorter, Reinhardt, & Cope, (2013), found that in young musicians, yoga is a promising therapy to reduce MPA. Khalsa et al. (2013), however, suggested that yoga serves as a treatment modality that could potentially prevent the early disruption or termination of individuals' musical careers. Weaver and Darragh (2015) reported that a yoga intervention revealed reduced anxiety in children and adolescents diagnosed with irritable bowel syndrome (IBS). Similarly, Rosenblatt et al. (2011) revealed a decrease in some behavioral symptoms. However, they argued that despite the reduction in anxiety the evidence was weak to support that yoga is the primary contributor to reducing the children's anxiety.

The positive benefits of yoga are reported on various health issues and among different age groups. According to Khalsa, Hickey-Schultz, Cohen, Steiner, and Cope (2012), adolescent students in a secondary school reported a significant difference in their stressful experiences, fatigue, and anger control after participating in an 11-week yoga class during physical education classes. Many studies support the fact that yoga is effective in reducing stress and maintaining health (Büssing, Michalsen, Khalsa, Telles, & Sherman, 2012; Field, 2012).

Keller et al. (2012) examined the relationship between the amount of stress, the perception that stress affects health, and the health and mortality outcomes of a nationally representative sample of the United States population. The researchers conducted a

systematic review and found that implementing strategies for integrating person-focused and organizational-focused interventions can potentially be effective in decreasing work-related stress for nurses in various specialties. Alexander, Rollins, Walker, Wong, and Pennings (2015) found that there is an increased awareness that nurses worldwide experience a high level of stress. In the study, a correlation exists between nurses' perceived stress and their performance. The study further revealed a positive effect when nurses participated in mind-body interventions such as yoga that helped to improve their self-care, mindfulness, and reduce their perceived stress experiences. Based on these results, yoga can be a therapy for helping practitioners such as nurses to improve their practice or productivity. A conclusion is possible as the evidence supports the positive effect of yoga on individuals' emotional well-being, their ability to manage occupational stress, and improve physical health.

Employee Wellness Program

Employees experience occupational stress resulting in an increase in chronic diseases and increase in employer health care costs (Chiou et al., 2013; Djindjic et al., 2012). Increasing employer health care costs are due to increased employee illnesses resulting from chronic diseases such as diabetes, heart diseases, and hypertension (NIOSH, 2014; Thomley et al., 2011). The CDC (2015b) suggested that employers should implement wellness programs as a measure to reduce employees' perceived stress. The CDC (2013) and Anderko et al. (2012) explored the effects of stress and argued on the increasing health care costs to employers, due to employee absences and illnesses resulting from occupational stress. Organizations with an EWP are not only concerned

about the health of their employees but also, controlling the cost of health care that many hope will be a positive return on investment (ROI) by developing these programs (Horwitz, Kelly, & DiNardo, 2013). Horchart and Lang (2011) argued that EWPs target employees who are high risk. Employers recognizing the importance of keeping their workers healthy have developed and implemented various wellness programs including yoga classes. Many employers attach an incentive to the programs as a strategy to motivate their staff to participate in the programs. While some employers found a positive outcome with using incentives, other employers do not. The authors suggested that further studies are necessary to determine the results of using incentives tied to employee health promotion. In contrast, Cawley and Price (2013) found that employees were initially motivated when offered financial incentives for participating in an employee weight-loss program; however, the employees lost their motivation over time. These studies can conclude that despite financial incentives employers can see conflicting results in the outcomes of the EWPs.

Since its inception, the hospital's Made for Your Health EWP has not been evaluated for its effectiveness in reducing the employees' perceived stress experiences. The literature review revealed that many organizations include yoga classes as one of the mind-body modalities in their EWP as a therapy for reducing stress. However, these organizations with an EWP do not evaluate the effect of the program in reducing employee perceived stress and health promotion. The literature does not provide a plethora of evidence confirming the effects of EWPs in reducing employees' stress.

Employers are gaining more interest in improving their workforce thereby improving the health of their employees. Employees participating in their employer yoga programs have reported positive responses to their participation in the programs. Some studies demonstrate the use of yoga practice in the treatment of chronic and terminal diseases such as hypertension and cancer (Bernstein et al., 2015; Buffart et al., 2012; Büssing, Ostermann, Lüdtkke, & Michalsen, 2012). With many employers seeking various strategies for maintaining a healthy and stress-free environment, it is necessary that employees understand the value of participating in these programs.

Recommendations for improving health and decreasing employees' perceived stress include providing accessible, relevant, and cost-effective programs for staff to reduce their stress. Many employers have included mindfulness-based activities such as mindful breathing and other variations of yoga in their programs.

There is evidence showing that many organizations have implemented yoga practices as part of their EWPs. However, there is not a vast array of evidence demonstrating that these programs are evaluated for their effectiveness in reducing employees' perceived stress and health promotion. Many employers have explored other strategies to address this gap in practice. These strategies are based on provisions of the ACA (2010) allowing employers to provide incentives to their employees according to specific criteria (Pollitz & Rae, 2016). These employee incentives included health plan cost-sharing, rewards such as discounts for individuals who meet outcomes, group-based financial incentives for their employees, and rewards for individuals who participate in

wellness activities or classes (Anderko et al., 2012; Cawley et al., 2013; Kullgren et al., 2013; Pollitz & Rae, 2016).

The purpose of this DNP project was to explore the perception of the participants in the EWP yoga program as it relates to stress reduction and health promotion activities. The DNP project helped to provide critical information to the stakeholders of the value of the yoga program to the organization. Educating the stakeholders will be helpful to improving the current program by making it more accessible to all employees, that may result in reduced perceived stress and improvement in employee health. Employees may be more productive and better prepared in managing their stress resulting in decreased absenteeism, presentism, and increased productivity (Cancelliere et al., 2011; Neville et al., 2011; Rongen et al., 2013).

Local Background and Context

Relevance of the Problem

There is an increase in employee chronic diseases and employer health care costs. Many employees have increased sick calls that may affect productivity and organizational finances. The passage of the ACA for wellness programs serves as an incentive to employers to motivate their employees to improve their health. The wellness programs will expand and become a critical part of a strategy to examine chronic diseases on a national basis (Anderko et al., 2012). The hospital's EWP consists of various activities. However, more than 70% of the staff does not participate in the programs. Current evidence supports the idea that individuals participating in yoga classes may experience reduced stress and improved health (Bernstein et al., 2015; Deshpande, 2012;

Keller et al., 2012). The hospital's yoga program consists of floor and chair yoga, meditation, and other mind-body strategies to help to motivate employees to participate in the programs. The yoga classes offered at the hospital are not well attended by the employees. The programs are advertised via emails, flyers, and word of mouth, however, the time that the classes are conducted is often not convenient for many employees and therefore it makes it difficult or impossible for them to participate in the yoga classes. Another reason that guided this DNP project is that the hospital has different sites and the program is not accessible to the staff in these off-sites. Lack of accessibility of the program adds to the lack of knowing the value of the program and the motivation to participate in the program. There is no evidence or documentation showing that the employer performs a follow up with participants in the program. There is no standardized document indicating the number of employees that participate in the EWP offered by the hospital. The outcome of this DNP project provided critical information to the leaders and organizers of the program to re-evaluate the program, determine if the program is effective, expand it to other sites, and determine if the ROI on the program is worth it. Many companies in the United States offer wellness programs to help to improve the employee health, control health costs, reduce absenteeism, and increase productivity. These reasons are quantifiable and can provide valuable information on the ROI (Horwitz et al., 2013; Pronk, 2014).

Role of the DNP Student

Participating in this doctoral project provided me the opportunity to collaborate with different individuals and disciplines within the organization. I met and discussed the

project with various disciplines in the integrative health department, collaborated with individuals of the integrative health, employee benefits, and the nurse recruitment departments. This level of collaborative discussion helped me to develop my confidence and improved my leadership skills. Learning these skills will be a lifelong process of leadership development. This experience provided me the opportunity to gain a better understanding of the importance of interdisciplinary collaboration, confidence in communicating with various disciplines, and the effect of collaboration in the provision of quality and improved level of care. I had the opportunity of evaluating an employer-based wellness program that provided valuable information on employee occupational stress and health risks and how this program may be useful in reducing employee illnesses. Interdisciplinary collaboration and population health improvement aligned with the DNP Essentials VI and VII (AACN, 2006) that outlined the need for interprofessional collaboration and preventing and controlling occupational injuries that will result in improving patient care and outcomes.

Motivations for the DNP Project

After spending some time in the integrative health department, I realized that the Made for Your Health program is available to staff, however, despite monthly advertising of the programs, they are not well attended by the staff. Some of the programs include mind-body activities such as yoga and meditation, walking club, and weight management programs. Based on discussions with the employee health department and information on the hospital's website more employees participate in the walking program and the weight management programs because of the incentives attached to these programs.

These programs are also more accessible and flexible for employee participation. The alternative health programs such as yoga are not offered at times that are convenient to the staff, and I believe that an evaluation of the program provided an opportunity for improving the hospital's yoga EWP and increase employee participation.

Summary

There is an increase in employee illnesses, absenteeism, and decreased productivity and many of these diseases and symptoms result from occupational stress (Clark et al., 2011; Farquharson et al., 2013). Many employers are placing the onus on their employees to be more active and more accountable for their health, leading organizations to develop and implement wellness programs geared at promoting a culture of health and well-being (Birdee et al., 2013). The hospital's wellness yoga program has not been evaluated to determine the effectiveness of the program on employee perceived stress and health promotion.

Section 3: Collection and Analysis of Evidence

Introduction

The CDC (2015b) has identified increasing health issues that have resulted from employee occupational stress. Those employees experiencing high stress levels tend to develop chronic diseases such as heart diseases, diabetes, and hypertension (CDC, 2013; Hammer & Sauter, 2013; Roberts & Grubb, 2014), resulting in absenteeism, illnesses, and increasing health care costs (CDC, 2013; Clark et al., 2011; Farquharson et al, 2012; Tucker et al., 2012). The purpose of this DNP project was to evaluate employee participation in a yoga class and their perceptions of stress. Section 3 addresses the sources of evidence, analysis, and synthesis of the related evidence used to guide this project.

Practice-Focused Question

The practice-focused question for this DNP project was: How do participants in an EWP yoga class perceive the impact of the program on their stress reduction and health promotion activities?

Sources of Evidence

Published Outcomes and Research

The sources of evidence that guided this project included a literature review using databases and search engines such as CINAHL and others, keywords related to the topic of interest, and semi structured interviews with participants of the employee yoga program. An analysis of the interviews with the participants in the program was conducted as it related to their perception of the EWP yoga class in reducing their stress

and health promotion activities. The participants' responses were analyzed for common themes.

Evidence generated for the Doctoral Project

Procedures

I met with yoga instructors to discuss the project. I attended yoga classes for one month as requested by yoga instructors and provided participants in the yoga class a written invitation to participate in this project (see Appendix B). The invitation included my email and phone number for interested employees to contact me to set up a time for an interview. Employees were interviewed in a quiet space. At the time of the interview, participants signed an informed consent form. At the time of the interview, the participants were given the following information:

- No incentives attached to participation
- Participation is voluntary
- Length of the semi structured interview
- Place and time of the interview
- Storage of the information
- How the information will be used
- Option to withdraw from the project can occur at anytime
- Interviewer contact information

The interviews were audiotaped lasting approximately 45 minutes to one hour.

The semi structured interviews were guided by the following open-ended questions (see Appendix C):

- How would you describe stress?
- How would you describe workplace stress?
- On a scale of 1-5, with 5 being the maximum work stress, how would you describe your work stress perception today?
- What made you decide to participate in the yoga class?
- How often do you participate in the yoga classes?
- What other activities are you participating in (a) just for fun (b) to help reduce any perceived stress?
- Describe how you feel before and after you participate in the yoga class?
- Are there features of the class that you think can be improved?
- Would you recommend this yoga class to a colleague?
- What recommendations would you have (if any) for prospective participants in the yoga class?
- Have you seen any benefits of participating in the yoga class in reducing your perceived stress?
- Would you like to share any other information about your experience in the yoga class?

I transcribed the transcripts and analyzed the results. The information was placed into themes.

Protections

Before collecting the data, Institutional Review Board (IRB) approval (08-10-17 0561662) was obtained from Walden University. A support letter was obtained from the

hospital for conducting the study. The participants' consent form, IRB approval from Walden University, and the support letter from the project site ensured the ethical protection of all the participants involved in the project. To maintain confidentiality, participants were asked to select an alias. All documents regarding the data collection will be stored in a concealed file on the computer and a hard copy in a locked cabinet in the interviewer's home office. Transcripts will be stored for 5 years and then shredded.

Analysis and Synthesis

The interviews were audiotaped analyzed, and coded. Themes or categories were identified based on the participants' responses from the interviews. The themes identified from the interviews and evidence-based literature resulted in recommendations for evaluating the current EWP yoga program and were developed and presented to the integrative health nurse coordinator.

Summary

Yoga has been widely practiced for many years by both Eastern and Western populations. With the increase in employee occupational stress and health issues, this health care organization has implemented an employee wellness yoga class to help in improving employee health. There is not adequate documentation showing that the program is effective in reducing stress or improving employee health. This DNP project explored an employees' wellness yoga program and its effectiveness in reducing employee perceived stress and promote healthy activities. The success of this project necessitated collaboration with different stakeholders, interviews with the participants, and identifying common themes. This project provided information that may be useful in

improving and expanding the yoga program throughout the hospital system, thereby improving employee health and the opportunity to maintain a healthy workforce.

Section 4: Findings and Recommendations

Introduction

The purpose of this project was to explore employees' perceptions of the hospital's Made for your Health employee wellness yoga program in stress reduction and health promotion. The gap in this employee wellness yoga program is to determine if employees participating in the program experience a reduction in their perceived stress and health promotion. Yoga has shown to improve physical and psychological health and has been practiced by adults and children. Some of the benefits of practicing yoga include the management of weight, stress, diabetes mellites, and hypertension (Backé et al., 2012; Balasubramaniam et al., 2012; Bershadsky et al., 2014; Kullgren et al., 2013; Landbergis et al., 2013; Weaver & Darragh, 2015). The project question was: How do participants in the EWP yoga class perceive the impact of the program on their stress reduction and health promotion activities? EWPs are beneficial to employees with high stress levels and chronic diseases and yoga has proven to be beneficial in improving quality of life (Clark et al., 2011). Nurses' quality of care and patient outcomes often can reflect their stress levels (Nantsupawat et al., 2016; Sharma et al., 2014) and employee performance and absenteeism is related to their level of engagement, physical health, and health behaviors (Merrill et al., 2013; Sharma, 2014).

The sources of evidence that directed the project question were a review of the literature spanning a 5-year period and key words regarding the topic of interest. Semi structured interviews were conducted with the participants in the yoga program. The responses were analyzed for common themes, differences, and relationships.

Findings and Implications

Emails were sent to 40 employees who participated in the yoga class. Of these 25 employees responded to the email. The semi structured interviews were conducted with 20 participants in the yoga program and analyzed for emerging themes. There were some employees ($n=5$), who attended the yoga class less than five times and chose not to participate in the interviews. However, in their response emails, four of the employees expressed feeling less stressed and other thoughts (see Table 2), despite only participating a few times in the yoga class. These responses were placed into common themes such as accessibility of class, time or frequency of class, difficulty of class, and feelings of stress.

Table 2

Relationship of theory to the analysis-participants attending yoga less than five times

Relationship to theory	Themes	Supporting narratives
Variables	Accessibility	-the location of the class was too far from the worksite
Identifying the event or situation	Time	-the timing of the class not conducive to work schedule - unable to tell effect of class due to low attendance
	Difficulty of class	-class too difficult and prefer to attend local gym - low attendance but felt less stressed and more relaxed

Those participants who attended the class more than five times ($n=20$), (see Table 3), revealed the most common themes as feelings of relaxation, participation relieved stress, recognize need to keep healthy, improved coping, and spirituality.

Table 3

Relationship of theory to the analysis- participants attending yoga more than five times

Relationship to theory	Themes	Supporting narratives
Variables	Feelings of relaxation	-participation in the yoga class resulted in feeling more relaxed - more flexible and balanced - improved breathing - improved confidence
Identifying the event or situation	Feelings of stress	-participation resulted in reduced stress and impulsiveness
Decision to participate	Recognition of health	-feeling more energetic -improved self-awareness and appreciation -increased sleep and reduced naps -not sick as often - classes are free -feeling better mentally and physically -improved posture and awareness - feeling happy and free “like I can fly”
Positive thinking	Coping	-feeling more focused -positive thinking -think more clearly -feeling much calmer -mentally better prepared to cope with any possible issue -more productive
	Spirituality	-oneness with a higher being

During the interviews, the participants were very receptive and eager to share their experiences. Many of the participants ($n=15$) expressed feelings of gratitude to participate in the project. While there were participation and lack thereof, most of the participants ($n=24$) expressed their feelings of relaxation and reduced stress. The implications resulting from the findings of the project will play a significant role in employees' response to the yoga class and its relation to a change in their health behaviors. Based on the responses, the consensus of the participants included a recognition of the importance of health, a need to change their response to situations and coping, awareness of self-care (internal and external), and feelings of mindfulness. Some of the participants seek other strategies to help with relaxation since their participation in the yoga class; these included crocheting ($n=2$), playing string instruments ($n=3$), origami ($n=1$), and practicing some of the yoga moves individually ($n=5$). The project can influence social change positively in that the findings may motivate employees to share their experience with their families, friends, and the general communities in which they live. The program can be expanded to other worksites and may influence improvements in stress reduction and management, increased relaxation, and delivery of patient care.

Recommendations

The review of the literature, semi structured interviews, and the current employee wellness yoga program lead to the primary recommendation to improve and expand the program. These recommendations are to advertise the program more via mediums such as screen savers, more leadership involvement (as this will help to create a culture of

health), online video, convenience and increased frequency of classes, developing a beginners and advanced yoga class, and expansion of the program to other sites within the organization. Each year at the employee appreciation celebration, the integrative health department provides 10-minute massages for employees who would like a massage. Utilizing the employee appreciation program could be another strategy to introduce the yoga program, by beginning with chair yoga, keeping a streaming video as a way of providing employees with information on the benefits of yoga and the employee yoga classes that the hospital offers. Informational handouts to the employees may also be helpful. The solution to the gap in the literature on the effectiveness of a yoga program in reducing employee stress experience and promoting healthy behaviors, is to follow the above recommendations. Maintaining appropriate documentation and following up with the participants at 3 months and 6-12 months after their participation in the program to determine its effectiveness in reducing employee stress and improve health activities.

Strengths and Limitations of the Project

The strengths of the project, is its accessibility and ability to conduct interviews in a manner that was manageable to the participants and did not interrupt their workflow. The literature review played a critical role in providing evidence for the benefits of an employee wellness yoga program and its positive effect on employee health and stress. Responses from the interview questions were significant to the project. The project also revealed valuable information for leadership to consider revising the program so that this

would realize the Dean's goal and mission of a healthy workforce that will ultimately maintain the standard of providing high-level patient care across the continuum.

A limitation of the project is the sample size since they did not represent a large proportion of the employees in the organization. This small number of participants may not motivate upper leadership to expand the program and provide sufficient information to show the return on investment. Another limitation was that the interviews were conducted during the participants' break time and therefore may have limited their responses. The project, however, provided the opportunity for further research on the benefits of employee wellness yoga programs and its effect in reducing stress, improving health, and services.

Section 5: Dissemination Plan

The format that was used for disseminating this DNP project findings on employees' perception of stress after participating in a yoga class was an oral presentation utilizing PowerPoint. The results were presented to the integrative health nurse manager and employee benefits department. The integrative health nurse manager will be sharing the results with the rest of the team in the department and yoga instructors for further discussions. The employee benefits department manager will be sharing the information with upper leadership for review.

The DNP project can be disseminated to the broader nursing audiences via the use of nursing journals. The project can also be shared with nurses and other employees on patient care units within the hospital. Nursing conferences, seminars, and other professional settings are areas where the project can be disseminated.

Analysis of Self

The knowledge I gained from the experience, made a significant impact on my leadership skills, communication skills, my ability to conduct and implement a program, and knowledge of the benefits of participating in a yoga class. I have evolved both as a person and professionally. I gained a better understanding of interprofessional collaboration and improved in my ability to appropriately respond and address organizational issues. As a scholar, my participation in this project has helped me to acquire the skills to utilize scholarly works to promote the nursing profession. As a change agent, I acquired knowledge and skills to implement change, through participation in quality improvement and clinical practices to advance the profession.

The experience came with some challenges, one of which is, initially not knowing who the various contacts were that were responsible for the program. Conducting interviews was also a bit challenging as the participants were not only from various departments but also from various sites in the organization. This made it difficult to synchronize our times. In some instances, I had to walk 15 minutes between different sites in the organization. The insights, however, that I gained from this experience will allow me to identify relevant issues, develop quality improvement programs, and through interdisciplinary collaboration implement evidence-based practice in the organization to maintain high-level care and improve delivery of care. I have developed the ability to participate in initiatives that will advance the nursing profession and improve outcomes.

Summary

The evidence showed that occupational stress could be harmful to employees' health and organizations have developed EWPs as a strategy to reduce stress and improve health care costs and employee health. The aim of this project was to explore employee perception of stress reduction and health activities after participating in an employee wellness yoga program. The analysis gained from the interview suggested that yoga is beneficial to reducing employee stress and improve their health promotion activities. The program will need further development, as this will allow more employees the opportunity to participate in the program, thereby developing a hospital-wide commitment to maintaining a healthy workforce that may result in reduced health care costs and improve organizational services to the wider population.

References

- Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Causes and consequences of occupational stress in emergency nurses, a longitudinal study. *Journal of Nursing Management, 23*(3), 346-358. doi:10.1111/jonm.12138
- Alexander, G. (2013). Self-care and yoga-academic-practice collaboration for occupational health. *Workplace Health and Safety, 65*(12), 510-513. doi:10.3928/218/21650799-201312066-
- Alexander, G., Pennings, J. Rollins, K., Walker, D., & Wong. L. (2015). Yoga for self-care and burnout prevention among nurses. *Workplace Health & Safety, 63*(10), 462-470. doi:10.1177/121650799015596102
- American Association of the Colleges of Nursing. (2006). *The essentials of doctoral education of advanced nursing practice*. Retrieved from aacn.nche.edu/dnp/Essentials.pdfInsert
- American Hospital Association. (2011). Hospitals should create a culture of health for HCWs. *Hospital Employee Health, 30*(7), 73-76. Retrieved from highbeam.com/doc/IGI-260491493.html
- Anderko, L., Roffenbender, J.S., Goetzel, R.Z., Millard, F., Wildenhaus, K., DeSantis, C., & Novelli, W. (2012). *Promoting prevention through the Affordable Care Act: Workplace wellness*. Retrieved from cdc.gov/PCD/issues/2012/12_0092.htm
- Arena, R., Guazzi, M., Briggs, P.D., Cahalin, L. P., Myers, J., Forman, D. E....Lavie, C.J. (2013). Promoting health and wellness in the workplace: A unique opportunity to establish primary and extended secondary cardiovascular risk reduction program.

- Mayo Clinic Proceedings*, 88(6), 605-617. doi:10.1016/j.mayocp.2013.03.002
- Auty, K.M., Cope, A., & Liebling, A. (2017). A systematic review and meta-analysis of yoga and mindfulness meditation in prison: Effects on psychological well-being and behavioral functioning. *International Journal of Offender Therapy and Comparative Criminology*, 6(16), 689-710. doi:10.1177/0306624X15602514
- Backé, E., Seidler, A., Latza, U., Rossnagel, K., & Schumann, B. (2012). The role of psychosocial stress at work for the development of cardiovascular diseases: A systematic review. *International Archives of Occupational and Environmental Health*, 85(1), 67-79. doi:10.1007/s00420-011-0643-6
- Balasubramaniam, M., Telles, S., & Doraiswamy, P. (2012). Yoga on our minds: A systematic review of yoga for neuropsychiatric disorders. *Frontiers in Psychiatry*, 3(117), 1-16. doi.org/10.3389/fpsy.2012.00117
- Bernstein, A.M., Kobs, A., Bar, J., Fay, S., Doyle, J., Golubic, M., & Roizen, M.F. (2015). Yoga for stress management among intensive care unit staff: A pilot study. *Alternative and Complementary Therapies*, 21(3), 111-115. doi:10.1089/act.2015.28999.amb
- Bershady, S., Trumpfheller, L., Kimble, H.B., Pipaloff, D., & Yim, I.S. (2014). The effect of prenatal Hatha yoga on affect, cortisol, and depressive symptom. *Complementary Therapies in Clinical Practice*, 20(2), 106-113. doi:10.1016/j.ctcp.2014.01.002
- Bilderbeck, A.C., Farias, M., Brazil, I.A., Jakobowitz, S., & Wikholm, C. (2013). Participation in a 10-week course of yoga improves behavioral control and

decreases psychological distress in a prison population. *Journal of Psychiatric Research*, 47(10), 1438-1445.

Birdee, G.S., Byrne, D.W., McGown, P.W., Rothman, R.L., Rolando, L.A., Holmes, M.C., & Yarbrough, M.I. (2013). Relationship between physical inactivity and health characteristics among participants in an employee wellness program. *Journal of Occupational and Environmental Medicine*, 55(5), 514-519.
doi:10.1097/JOM.0b013e31827f3d7

Bono, J.E., Glomb, T.M., Shen, W., Kim, E., & Koch, A.J. (2013). Building positive resources: Effects of positive events and positive reflection on work stress and health. *Academy of Health Management Journal*, 56(6), 1601-1627.
doi:10.5465/amj.2011.0272

Buffart, L.M., Uffelen, J.G.Z., Riphagen, I.I., Brug, J., Mechelen, W., Brown, W.J., & Chinapaw, M.J. (2012). Physical and psychosocial benefits of yoga in cancer patients and survivors: A systematic review and meta-analysis of randomized control trials. *BMC Cancer*, 12, 559-580. <http://doi.org/10.1186/1471-2407-12-559>

Büssing, A., Hedstuck, A., Khalsa, S.B., Ostermann, T., & Heusser, P. (2012). Development of specific aspects of spirituality during a 6-month intensive yoga practice. *Evidence-Based Complementary Medicine*, 12, 1-7.
doi.org/10.1155/2012/981523

Büssing, A., Khalsa, S.B., Michalsen, A., Telles, S., & Sherman, K.J. (2012). Effects of yoga on mental and physical health: A short summary of reviews. *Evidence-*

Based Complementary and Alternative Medicine, 2012, ID 165410, 1-7.

doi.org/10.1155/2012/165410

Büssing, A., Ostermann, T., Ludtke, R., & Michalsen, A. (2012). Critical review effects of yoga interventions on pain and pain-associated disability: A meta-analysis.

Journal of Pain, 13(1), 1-9. doi:10.1016/j.jpain.2011.10.001

Cancelliere, C., Cassidy, J. D., Ammendolia, C., & Côté, P. (2011). Are workplace health promotion programs effective at improving presentism in workers? A systematic review and best evidence synthesis of the literature. *BMC Public Health*, 11, 395. Retrieved from [http://www.biomedcentral.com/1471-](http://www.biomedcentral.com/1471-2458/11/395)

2458/11/395

Carter, R., Kelly, R., Alexander, C., & Holmes, L. (2011). A collaborative university model for employee wellness. *Journal of American College Health*, 59(8), 761-763. doi:101080/07448481.2010.544347

Cawley, J., & Price, J.A. (2013). A case study of a workplace wellness program that offers financial incentives for weight loss. *Journal of Health Economics*, 32(2013), 794-803. doi:10.1016/j.jhealeco.2013.04.005

Centers for Disease Control and Prevention. (2013). *Workplace health promotion. Rising health care costs are unsustainable*. Retrieved from cdc.gov/workplacehealthpromotion/businesscase/reasons/rising.html

Centers for Disease Control and Prevention. (2015a). *Wellness at work: Chronic disease at work*. Retrieved from cdc.gov/features/workingwellness/

- Centers for Disease Control and Prevention. (2015b). *Workplace health promotion*. Retrieved from cdc.gov/chronicdisease/resources/publications/aag/workplace-health.htm
- Centers for Disease Control and Prevention. (2016). Health expenditures. Retrieved from cdc.gov/nchs/fastats/health-expenditures.htm
- Chiou, S., Chiang, J., Huang, N., Wu, C., & Chien, L. (2013). Health issues among nurses in Taiwanese hospitals: National survey. *International Journal of Nursing Studies*, 50(2013), 1377-1384. doi:10.1016/j.ijnurstu.2013.01.012
- Cho, H.K., Moon, W., & Kim, J. (2015). Effects of yoga on stress and inflammatory factors in patients with chronic low back pain: A randomized controlled study. *European Journal of Integrative Medicine*, 7(2), 118-123. doi.org/10.1016/j.eujim.2014.10.008
- Chong, C .S., Tsunaka, M., Tsang, H.W., Chan, E.P., & Cheung, W.M. (2011). Effects of yoga on stress management in healthy adults: A systematic review. *Alternative Therapies in Health and Medicine*, 17(1), 32-38.
- Clark, M.M., Warren, B.A., Hagen, P.T., Johnson, B.D., Jenkins, S.M., Verneburg, B.L., & Olsen, K.D. (2011). Stress level, health behaviors, and quality of life in employees joining a wellness center. *American Journal of Health Promotion*, 26(1), 21-25.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385-386.

- Cosgrove, M.P., Sargeant, L.A., Caleyachetty, R., & Griffin, S.J. (2012). Work-related stress and Type 2 diabetes review and meta-analysis. *Occupational Medicine*, 62(3), 167-173. doi:10.1093/occmed/kqs002
- Cramer, H., Ward, L., Saper, R., Fishbein, D., Dobos, G., & Lauche, R. (2015). The safety of yoga: A systematic review and meta-analysis of randomized controlled trials. *American Journal of Epidemiology*, 182(4), 281-293. doi:10.1093/aje/kwv071
- Cramer, H., Langhorst, J., Lauche, R., & Dobos, G. (2013). Yoga for depression: A systematic review and meta-analysis. *Depress Anxiety*, 30(11), 1068-1083. doi:10.1002/da.22166
- Cui, J., Yan, J., Yan, L., Pan, L., Le, J., & Guo, Y. (2017). Effects of yoga in adults with Type 2 diabetes mellitus: A meta-analysis. *Journal of Diabetes Investigation*, 8(2), 201-209.
- Daly, L.A., Haden, S.C., Hagins, M., Papouchis, N., & Ramirez, P.M. (2015). Yoga and emotion regulation in high school students: A randomized controlled trial. *Evidence-Based Complementary and Alternative Medicine*, 215, ID 794928, 1-8. doi.org10.1155/2015/794928
- Danielly, Y., & Silverthorne, C. (2017). Psychological benefits of yoga for female inmates. *International Journal of Yoga Therapy*. (Epub). doi:10.17761/IJYT2017
- Deshpande, R.C. (2012). A healthy way to handle workplace stress through yoga, meditation, and soothing humor. *International Journal of Environmental Sciences*, 2(4), 2143-2154. doi:10.9790/487X-1810031825

- Dhabhar, F. (2014). Effects of stress on immune function: The good, the bad, and the beautiful. *Immunology Research*, 58(2-3) 193-210. doi:10.1007/s120269-014-8517-0
- Djindjic, N., Jovanovic, J., Djindjic, B., Jovanovic, M., & Jovanovic, J.J. (2012). Associations between the occupational stress index and hypertension, type 2 diabetes mellitus, and lipid disorders in middle-aged men and women. *Annals of Occupational Hygiene*, 56(9), 1051-1062. doi:10.1093/annhyg/mes059
- Donovan, R.O., Doody, O., & Lyons, R. (2013). The effect of stress and its implications for nursing. *British Journal of Nursing*, 22(16), 969-973. doi:10.12968/bjon.2013.22.16.969
- Douglass, L. (2007). How did we get here? A history of yoga in America, 1800-1970. *International Journal of Yoga Therapy*, 17(1), 35-42.
- Farquharson, B., Bell, C., Johnston, D., Jones, M., Schofield, P., Allan, J....Johnston, M. (2012). Nursing stress and patient care: real-time investigation of the effect of nursing tasks and demands on psychological stress, physiological stress, and job performance: Study protocol. *Journal of Advanced Nursing*, 69(10), 2327-2335. doi:10.1111/jan.12090
- Fiabane, E., Giorgi, I., Sguazzin, C., & Argentero, P. (2013). Work engagement and occupational stress in nurses and other health care workers: The role of organizational and personal factors. *Journal of Clinical Nursing*, 22(17-18), 2614-2624. doi 10.1111/jocn.12084
- Field, T. (2016). Yoga research review. *Complementary Therapies in Clinical Practice*,

24, 145-161. doi.org/10.1016/j.ctcp.2016.06.005

Field, T., Diego, M., Delgado, J., & Medina, L. (2013). Yoga and social support reduce prenatal depression, anxiety, and cortisol. *Journal of Bodywork, Movement, Therapies*, 17(4), 397-403. doi:10.1016/j.jbmt.2013.03.010

Field, T. (2012). Exercise research on children and adolescents. *Complementary Therapies in Clinical Practice*, 18(1), 54-59. doi:10.1016/j.ctcp.2011.04.002

Gong, H., Ni, C., Shen, X., Wu, T., & Jiang, C. (2015). Yoga for prenatal depression: A systematic review and meta-analysis. *BMC Psychiatry*, 15, 14. doi:10.1186/s12888-015-0393-1

Haden, S.C., Daly, L., & Hagins, M. (2014). A randomized controlled trial comparing the impact of yoga and physical education on the emotional and behavioral functioning of middle school children. *Focus on Alternative and Complementary Therapies*, 19(3), 148-155. doi:10.1111/fct.12130

Hammer, L.B., & Sauter, S. (2013). Total worker and work-life stress. *Journal of Occupational & Environmental Medicine*, 55(12) Supplement, S25-S29. doi:10.1097/JOM.0000000000000043

Harder, H., Parlour, L., & Jenkins, V. (2012). Randomized controlled trials of yoga interventions for women with breast cancer: A systematic literature review. *Support Care Cancer*, 20(12), 3055-3064. doi:10.1007/s00520-012-1611-8

Hartfiel, N., Havenhand, J., Khalsa, S.B., Clarke, G., & Krayner, A. (2011). The effectiveness of yoga for the improvement of well-being and resilience to stress in the workplace. *Scandinavian Journal of Work, Environment & Health*, 37(1), 70-

76.

- Herrero, S.G., Saldaña, M.A.M., Rodriguez, J.C., & Ritzel, D.O. (2012). Influence of task demands on occupational stress: Gender differences. *Journal of Safety Research*, 43(5-6), 365-374.
- Hochart, C., & Lang, M. (2011). Impact of a comprehensive worksite wellness program on health risks, utilization, and health care costs. *Population Health Management*, 14(3), 111-116. doi:10.1089/pop.2010.0009
- Horwitz, J.R., Kelly, B.D., & DiNardo, J.E. (2013). Wellness incentives in the workplace: Cost savings through cost shifting to unhealthy workers. *Health Affairs*, 32(3), 468-476. doi:10.1377/hlthaff.2012
- Huang, F., Chien, D., & Chung, U. (2013). Effects of hatha yoga on stress in middle-aged women. *Journal of Nursing Research*, 21(1), 59-65. doi:10.1097/jnr.0b013e3182829d6d
- Huff, J., & Ablah, E. (2016). Stress and presentism among Kansas Hospital employees: What stress reduction interventions might hospitals benefit from offering to employees? *Journal of Occupational and Environmental Medicine*, 58(11), e368-e369. doi:10.1097/JOM0000000000000872
- Hymel, P.A., Loeppke, R.R., Baase, C.M., Burton, W.N., Hartenbaum, N.P., Hudson, T.W... Larson, P.W. (2011). Workplace health protection and promotion: A new pathway for a healthier and safe workplace. *Journal of Occupational and Environmental Medicine*, 53(6), 695-702. doi:10.1097/JOM.0b013e31822005d0

- Innes, K.E., & Selfe, T.K. (2016). Yoga for adults with Type 2 diabetes: A systematic review of controlled trials. *Journal of Diabetes Research*, 2016(2016), Article ID: 6979370, 1-23. doi.org/10.1155/2016/6979370
- Institute of Medicine (IOM). (2010). *The future of nursing: Leading change, advance health*. Washington, DC: Author.
- Jeter, P.E., Slutsky, J., Singh, N., & Khalsa, S.B. (2015). Yoga as a therapeutic intervention: A bibliometric analysis of published research studies from 1967 to 2013. *Journal of Complementary Medicine*, 21(10), 586-592. doi:10.1089/acm.2015.0057
- Kang, S., Jo, H.S., Boo, Y.J., Lee, J.S., & Kim, C.S. (2015). Occupational stress and related factors among surgical residents in Korea. *Annals of Surgical Treatment and Research*, 89(5), 268-274. doi.org/10.4174/astr.2015.89.5.268
- Kaspin, L.C., Gorman, K.M., & Miller, R.M. (2013). Systematic review of employer-sponsored wellness strategies and their economic and health-related outcomes. *Population Health Management*, 16(1), 14-21. doi:10.1089/pop.2012.0006
- Keller, A., Litzelman, K., Wisk, L.E., Maddox, T., Cheng, E., Rose, C....Witt, W.P. (2012). Does the perception that stress affects health matter? The association with health and mortality. *Health Psychology*, 31(5), 677-684. doi:10.1037/a0026743
- Khalsa, S.B., Butzer, B., Shorter, S. M., Reinhardt, K.M., & Cope, S. (2013). Yoga reduces performance anxiety in adolescent musicians. *Alternative Therapies*, 19(2), 34-45.

- Khalsa, S.B., Cope, S., Cohen, D., Hickey-Schultz, L., & Steiner, N. (2012). Evaluations of the mental health benefits of yoga in a secondary school: A preliminary randomized controlled trial. *Journal of Behavioral Health Services and Research*, 39(1), 80-90. doi.org/10.1007/s11414-011-9249-8
- Khamisa, N., Oldenburg, B., Peltzer, K., & Ilic, D. (2015). Work related stress, burnout, job satisfaction and general health of nurses. *International Journal of Environmental Research and Public Health*, 12(1), 652-666. doi:10.3390/ijerph120100652
- Kivimäki, M., & Kawachi, I. (2015). Work stress as a risk factor for cardiovascular disease. *Current Cardiology Reports*, 17(9), 74. doi:10.1007/s11886-015-0630-8
- Kullgren, J.T., Troxel, A.B., Loewenstein, G., Asch, D.A., Norton, L. A., Wesby, L... Volpp, K.G. (2013). Individual-versus group-based financial incentives for weight loss: A randomized controlled trial. *Annals of Internal Medicine*, 158(7), 505-517. doi:10.7326/0003-4819-158-7-201304020-00002
- Landsbergis, P.A., Dobson, M., Koutsouras, G., & Schnall, P. (2013). Job strain and ambulatory blood pressure: A meta-analysis and systematic review. *American Journal of Public Health*, 103(3), e61-e71. doi:10.2105/AJPH.2012.301153
- Lathrop, B., & Hodnicki, D. (2014). “The Affordable Care Act: Primary care and the Doctor of Nursing Practice Nurse” OJIN: *Online Journal of Issues in Nursing*, 19(2). doi:10.3912/OIJN.Vol198No02PPT02
- Lazarus, R.S. (1966). *Psychological stress and the coping process*. New York, NY: McGraw-Hill.

- Li, A.W., & Goldsmith, C.W. (2012). The effects of yoga on anxiety and stress. *Alternative Medicine Review, 17*(1), 21-35.
- Mark, G., & Smith, A.P. (2012). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. *Anxiety, Stress, & Coping, 25*(1), 63-78.
doi:10.1080/10615806.2010.548088
- Matsushita, T., & Oka, T. (2015). A large-scale survey of adverse events experienced in yoga classes. *Biopsychosocial Medicine, 9*(9), 1-10. doi:10.1186/s13030-015-0037-1
- McCall, M., Thorne, S., Ward, S., & Heneghan, C. (2015). Yoga in adult cancer: An exploratory, qualitative analysis of the patient experience. *BMC Complementary and Alternative Medicine, 15*(1), 245-253. doi:10.1186/s12906-0738-9
- Melynk, B.M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and health care: A guide to best practice* (2nd ed.). Philadelphia: PA. Lippincott, Williams & Wilkins.
- Merrill, R.M., Aldana, S.G., Pope, J.E., Anderson, D.R., Coberley, C.R., Grossmeier, J.J., & Whitmer, R.W. (2013). Self-rated job performance and absenteeism according to employee engagement, health behaviors, and physical health. *Journal of Occupational & Environmental Medicine, 55*(1), 10-18.
doi:10.109+7/JOM.0b013e31827b73af
- Mohite, N., Shinde, M., & Gulavani, A. (2014). Occupational stress among nurses working in selected tertiary care hospitals. *International Journal of Science and*

Research, 3(6), 999-1005.

Muirhead, J., & Fortune, C. (2016). Yoga in prisons: A review of the literature.

Aggression and Violent Behavior, 28(2016), 57-63.

doi:10.1016/j.avb.2016.03.013

Nantsupawat, A., Nantsupawat, R., Kunaviktikul, W., Turale, S., & Poghosyan, L.

(2016). Nurse burnout, nurse-reported quality of care, and patient outcomes in Thai hospitals. *Nursing Scholarship*, 48(1), 83-90. doi:10.1111/jnu.12187

National Institute for Occupational Safety and Health (NIOSH). (2014). *Stress at work*.

(Publication No. 99-101). Retrieved from cdc.gov/noish

Neville, B.H., Merrill, R.M., & Kumpfer, K.L. (2011). Longitudinal outcomes of a

comprehensive, incentivized worksite wellness program. *Evaluation & the Health Professions*, 34(1), 103-123. doi:10.1177/0163278710379222

Nyberg, S.T., Fransson, E.I., Heikkilä, K., Alfredsson, L., Casini, A., Clays,

E...Kivimäki, M. (2013). Job strain and cardiovascular disease risk factors:

Meta-analysis of individual-participant data from 47,000 men and women. *PLoS ONE*, 8(6), e67323. doi:10.101371/journal.pone.0067323

Park, C.I., Braun, T., & Siegel, T. (2015). Who practices yoga? A systematic review of

demographic, health-related, and psychosocial factors associated with yoga

practice. *Journal of Behavioral Medicine*, 38(3), 460-471. doi:10.1007/s10865-015-9618-5

Perelman, A.M., Miller, S.L., Clements, C.B., Rodriguez, A., Allen, K., & Cavanaugh, R.

(2012). Meditation in deep south prison: A longitudinal study of the effects of

Vipassana. *Journal of Offender Rehabilitation*, 51(3), 176-198.

doi:10.1080/10509674.2011.632814

Polis, R.I., Gussman, D., & Kuo, Y.H. (2015). Yoga in pregnancy: An examination of maternal and fetal responses to 26 yoga postures. *Obstetrics and Gynecology*, 126(6), 1237-1241. doi:10.1097/AOG.0000000000001137.

Pollitz, K., & Rae, M. (2016). Workplace wellness programs characteristics and requirements. The Kaiser Family Foundation. Retrieved from kff.org/private-insurance/issue-brief/workplace-programs-characteristics-and-requirements/

Pronk, N.P. (2014). Placing workplace wellness in proper context: Value beyond money. *Prevention Chronic Disease*, 11(7): E119. doi:10.588/pcd11.140128

Riley, K.E., & Park, C. L. (2015). How does yoga reduce stress? A systematic review of mechanisms of change and guide to future inquiry. *Health Psychology Review*, 9(3), 379-396. doi:10.1080/17437199.2014.981778

Roberts, R.K., & Grubb, P.L. (2014). The consequences of nursing stress and need for integrated solutions. *Rehabilitation Nursing*, 39(2), 62-69. doi:10.1002/rnj.97

Rongen, A., Robroek, S.J., van Lenthe, F.J., & Burdorf, A. (2013). Workplace health promotion: A meta-analysis of effectiveness. *American Journal of Preventive Medicine*, 44(4), 406-415. doi:10.1016/j.amepre.2012.12

Rosenblatt, L.E., Gorantla, S., Torres, J.A., Yarmush, R.S., Rao, S., Park, E. R... Levine, J.B. (2011). Relaxation response-based yoga improves functioning in young children with autism: A pilot study. *Journal of Alternative and Complementary Medicine*, 17(11), 1029-1055. doi:10.1089/acm.2010.0834

- Sharma, P., Davey, A., Davey, S., Shukla, A., Shrivastva, K., & Bansal, R. (2014). Occupational stress among staff nurses: Controlling the risk to health. *Indian Journal of Occupational & Environmental Medicine*, 18(2), 52-56.
doi:10.4103/00195278.146890
- Sharma, M. (2014). Yoga as an alternative and complementary approach for stress management: A systematic review. *Journal of Evidence-Based Complementary & Alternative Medicine*, 19(1), 59-67. doi:10.1177/2156587213503344
- Singh, V.P., Khandelwal, B., & Serpa, N.T. (2015). Psycho-neuro-endocrine-immune mechanisms of action of yoga in type II diabetes. *Ancient Science of Life*, 35(1), 12-17. doi.org/10.4103/0257-7941.165623
- Smith, M.A.P. (2012). Occupational stress, job characteristics, coping, and the mental health of nurses. *British Journal of Health Psychology*, 17(3), 505-521.
doi:10.1111/j.2044-8287.2011.02051.x.Epub
- Sorrell, J. (2015). "Ethics: Employer-sponsored wellness programs for nurses: The ethics of carrots and sticks." *OJIN: Online Journal of Issues in Nursing*, 20(1).
doi:10.3912/OJIN.Vol20No01EthCo101
- Stephens, A., & Kivimäki, M. (2012). Stress and cardiovascular disease. *Nature Reviews Cardiology*, 9(6), 360-370. doi:10.1038/nrcardio.2012.45
- Sureka, P., Govil, S., Dash, C., Dash, D., Kumar, M., & Singhal, V. (2014). Effects of Sudarshan Kriya on male prisoners with non-psychotic psychiatric disorders: A randomized control trial. *Asian Journal of Psychiatry*, 12, 43-49.
doi:10.1016/j.ajp.2014.06.010

- Taneja, D.K. (2014). Yoga and Health. *Indian Journal of Community Medicine*, 39(2), 68-72. doi.org/10.4103/0970-0218.132716
- Tehrani, H., Rakhshani, T., Zadeh, D.S., Hosseini, S.M., & Bagheriyan, S. (2013). Analyzing the relationship between job stress to mental health, personality type and stressful life events of the nurses occupied in Tehran 115 Emergency. *Iranian Red Crescent Medical Journal*, 15(3), 272-273. doi:10.5812/ircmj.1917
- Thomley, B.S., Ray, S.H., Cha, S.S., & Bauer, B.A. (2011). Effects of a brief comprehensive, yoga-based program on quality of life and biometric measures in an employee population: A pilot study. *Explore*, 7(1), 27-29. doi:10.1016/j.explore.2010.10.004
- Toh, S.G., Ang, E., & Devi, M.K. (2012). Systematic review on the relationship between the nursing shortage and job satisfaction, stress, and burnout levels among nurses in oncology or hematology settings. *International Journal of Evidence-Based Health care*, 10(2), 126-141. doi:10.1111/j.1744-1609.2012.00271.x
- Trivellas, P., Reklitis, P., & Platis, C. (2013). The effect of job related stress on employees' satisfaction: A survey in health care. *Procedia-Social and Behavioral Sciences*, 73, 718-726. doi.org/10.1016.j.sbspro.2013.02.110
- Tsutsumi, A., Kayaba, K., & Ishikawa, S. (2011). Impact of occupational stress on stroke across occupational class and gender. *Social Science & Medicine*, 72(10), 1652-1658. doi:10.1016/socscimed.2011.03.026
- Tucker, S.J., Weymiller, A.J., Cutshall, S.M., Rhudy, L., M., & Lohse, C.M. (2012). Stress ratings and health promotion practices among RNs: A case for action.

Journal of Nursing Administration, 42(5), 282-292.

doi:10.1097/NNA.0b013e318253585f

United States Department of Health and Human Services. (2014). *Healthy People 2010: Understanding and improving health*, 2nd ed. Washington, DC: U.S. Government Printing Office. Retrieved from health.gov/healthypeople/

United States Department of Labor. (2014). *The Affordable Care Act and Wellness Programs*. Employee Benefits Security Administration. Retrieved from dol.gov/ebsa/newsroom/fswellnessprogram.html

Van Uden-Kraan, C.F., Chinapaw, M.J.M., Drossaert, C.H.C., Verdonck-de Leeuw, I.M., & Buffart, L.M. (2013). Cancer patients' experiences with and perceived outcomes of yoga: Results from focus groups. *Support Care Cancer*, 21(7), 1861-1870. doi:10.1007/s005209-013-1728-4

Voltmer, E., Rosta, J., Siegrist, J., & Aasland, O.G. (2012). Job stress and job satisfaction of physicians in private practice: Comparison of German and Norwegian physicians. *International Archives of Occupational and Environmental Health*, 58(7), 819-828. doi:10.1007/s00420-011-0725-5

Wang, L., Tao, H., Ellenbecker, C.H., & Liu, X. (2012). Job satisfaction, occupational commitment and intent to stay among Chinese nurses: A cross-sectional survey. *Journal of Advanced Nursing*, 68(3), 539-549. doi:10.1111/j.1365-2648.2011.05755

- Weaver, L.L., & Darragh, A.R. (2015). Systematic Review of yoga interventions for anxiety reduction among children and adolescents. *American Journal of Occupational Therapy*, 69(6), 1-9. doi:10.5014/ajot.2015.020115
- Woodyard, C. (2011). Exploring the therapeutic effects of yoga and its ability to increase quality of life. *International Journal of Yoga*, 4(2), 49-54. doi:10.4103/0973-6161.85485
- You, L.M., Aiken, L.H., Sloane, D.M., Liu, K., & He, G.P. (2013). Hospital nursing, care quality, and patient satisfaction: Cross-sectional surveys of nurses and patients in hospitals in China and Europe. *International Journal of Nursing Studies*, 50(2), 154-161. doi:10.1016/j.ijnurstu.2012.05.003

Appendix A: Literature Summary with Level of Evidence

Reference	Research Method	Main Findings	Level of Evidence
Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Causes and consequences of occupational stress in emergency nurses, a longitudinal study. <i>Journal of Nursing Management</i> , 23(3), 346-358. doi:10.1111/jonm.12138	Longitudinal Study	Work-related interventions influence performance and behaviors.	Level II
Alexander, G., Rollins, K., Walker, D., Wong, L., & Pennings, J. (2015). Yoga for self-care and burnout prevention among nurses. <i>Workplace Health & Safety</i> , 63(10), 462-470. doi:10.1177/121650799015596102	Randomized Control Trial	The nurses involved in mind-body practices are better able to manage stress and are emotionally resilient.	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Alexander, G. (2013). Self-care and yoga-academic-practice collaboration for occupational health. <i>Workplace Health and Safety</i> , 65(12), 510-513. Retrieved from http://whs.sagepub.com/content/61/12/510.short	Qualitative Descriptive Studies	Yoga is effective in motivating employees into maintaining health promotion.	Level VI
American Association of the Colleges of Nursing. (2006). <i>The essentials of doctoral education of advanced nursing practice</i> . Retrieved from aacn.nche.edu/dnp/Essentials.pdf	Expert Opinion	Identifies and discusses the provision of the DNP Essentials and clarifies the role of the DNP graduate nurse.	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
American Hospital Association. (2011). Hospitals should create a culture of health for HCWs. <i>Hospital Employee Health</i> , 30(7), 73-76. Retrieved from highbeam.com/doc/IGI-260491493 .html	Expert Opinion	Health care reform has provided organizations the opportunity to promote employee wellness.	Level VII
Anderko, L., Roffenbender, J.S., Goetzel, R.Z., Millard, F., Wildenhaus, K., DeSantis, C., & Novelli, W. (2012). <i>Promoting prevention through the Affordable Care Act: Workplace wellness</i> . Retrieved from cdc.gov/PCD/issues/2012/12_0092 .htm	Systematic Review of Randomized control trials	Economic and preventative incentives can effectively encourage employee behavioral changes.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>Arena, R., Guazzi, M., Briggs, P.D., Cahalin, L. P., Myers, J., Forman, D. E... Lavie, C.J. (2013). Promoting health and wellness in the workplace: A unique opportunity to establish primary and extended secondary cardiovascular risk reduction program. <i>Mayo Clinic Proceedings</i>, 88(6), 605-617. doi:10.1016/j.mayocp.2013.03.002</p>	<p>Systematic Review</p>	<p>Workplace wellness programs are important in employee wellness and can be a strategy to reducing the risks and managing cardiovascular diseases.</p>	<p>Level I</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>Auty, K.M., Cope, A., & Liebling, A. (2017). A systematic review and meta-analysis of yoga and mindfulness meditation in prison: Effects on psychological well-being and behavioral functioning. <i>International Journal of Offender Therapy and Comparative Criminology</i>, 6(16), 689-710. doi:10.1177/0306624X15602514</p>	Systematic Review	The evidence showed that yoga and meditation have immediate positive effect on behavior in incarcerated individuals.	Level I
<p>Backé, E., Seidler, A., Latza, U., Rossnagel, K., & Schumann, B. (2012). The role of psychosocial stress at work for the development of</p>	Systematic Review	Work-stress is a significant contributor for increasing cardiovascular disease.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>cardiovascular diseases: A systematic review. <i>International Archives of Occupational and Environmental Health</i>, 85(1), 67-79. doi:10.101007/s00420-011-0643-6</p>			
<p>Balasubramaniam, M., Telles, S., & Doraiswamy, P. (2012). Yoga on our minds: A systematic review of yoga for neuropsychiatric disorders. <i>Frontiers in Psychiatry</i>, 3(117), 1-16. doi.org/10.3389/fpsyt.2012.00117</p>	<p>Systematic Review</p>	<p>Yoga is effective in treating depression, sleep disorders, and other mental diseases.</p>	<p>Level I</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Bernstein, A.M., Kobs, A., Bar, J., Fay, S., Doyle, J., Golubic, M....& Roizen, M.F. (2015). Yoga for stress management among intensive care unit staff: A pilot study. <i>Alternative and Complementary Therapies</i> , 21(3), 111-115. doi:10.1089/act.2015.28999.amb	Single-arm non-randomized quasi-experiment n=24	The participants felt supported for participating in yoga and that it helped them to manage their stressful experiences.	Level III
Bershady, S., Trumpfheller, L., Kimble, H.B., Pipaloff, D., & Yim, I.S. (2014). The effect of prenatal Hatha yoga on affect, cortisol, and depressive symptom	Case controlled study	Pregnant women who practice yoga revealed lower cortisol levels and higher positive effect during the yoga class.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p><i>Complementary Therapies in Clinical Practice</i>, 20(2), 106-113.</p> <p>doi:10.1016/j.ctcp.2014.01.002</p>			
<p>Bilderbeck, A.C., Farias, M., Brazil, I.A., Jakobowitz, S., & Wikholm, C. (2013). Participation in a 10-week course of yoga improves behavioral control and decreases psychological distress in a prison population. <i>Journal of Psychiatric Research</i>, 47(10), 1438-1445.</p>	<p>Exploratory study</p>	<p>Yoga can reduce stress, increase self-esteem, improve wellbeing and mental health in prisoners.</p>	<p>Level IV</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Birdee, G.S., Byrne, D.W., McGown, P.W., Rothman, R.L., Rolando, L.A., Holmes, M.C., & Yarbrough, M.I. (2013). Relationship between physical inactivity and health characteristics among participants in an employee wellness program. <i>Journal of Occupational and Environmental Medicine</i> , 55(5), 514-519. doi:10.1097/JOM.0b013e31827f3d7	Cross-sectional analysis	Race, gender, and age are related to individuals' level of activity. Blacks, Hispanics, and women are less active. Higher cardiovascular diseases are noted in individuals who are less active.	Level VI
Bono, J.E., Glomb, T.M., Shen, W., Kim, E., & Koch, A.J. (2013). Building positive resources: Effects of positive events and positive	Longitudinal study	Positive, negative, and work-life events	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>reflection on work stress and health. <i>Academy of Health Management Journal</i>, 56(6), 1601-1627. doi:10.105465/amj.2011</p>		<p>contribute to changes in blood pressure, perceived stress, and mental health.</p>	
<p>Buffart, L.M., Uffelen, J.G.Z., Riphagen, I.I., Brug, J., Mechelen, W., Brown, W.J....Chinapaw, M.J. (2012). Physical and psychosocial benefits of yoga in cancer patients and survivors: A Systematic Review and meta-analysis of randomized control trials. <i>BMC Cancer</i>, 12, 559-580. doi.org/10.1186/1471-2407-12-559</p>	<p>Systematic Review</p>	<p>Patients with breast cancer reported a decrease in anxiety, depression, and distress when they practice yoga.</p>	<p>Level I</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Büssing, A., Hedstuck, A., Khalsa, S.B., Ostermann, T., & Heusser, P. (2012). Development of specific aspects of spirituality during a 6-month intensive yoga practice. <i>Evidence-Based Complementary Medicine</i> , 12, 1-7. doi.org/10.1155/2012/981523	Prospective pre-and-post study	Practicing yoga may affect certain aspects of the practitioner's spirituality, mood, and mindfulness.	Level III
Büssing, A., S.B. Khalsa., Michalsen, A., Telles, S., & Sherman, K.J. (2012). Effects of yoga on mental and physical health: A short summary of reviews. <i>Evidence-Based Complementary and Alternative Medicine</i> , 2012, ID 165410, 1-7. doi.org/10.1155/2012/165410	Systematic Review	The positive effects of yoga are significant in healthier individuals than those with chronic diseases.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Büssing, A., Michalsen, A., Ostermann, T., & Ludtke, R. (2012). Critical review effects of yoga interventions on pain and pain-associated disability: A meta-analysis. <i>Journal of Pain</i> , 13(1), 1-9. doi:10.1016/j.jpain.2011.10.001	Meta-analysis	Yoga is useful in supporting several pain-associated diseases. Some yoga styles are more effective in individuals with physical limitations.	Level I
Cancelliere, C., Cassidy, J. D., Ammendolia, C., & Côté, P. (2011). Are workplace health promotion programs effective at improving presentism in workers? A Systematic Review and best evidence synthesis of the literature. <i>BMC Public Health</i> , 11, 395.	Systematic Review	Evidence shows that employee health programs can positively affect presentism.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Retrieved from biomedcentral.com/1471- 2458/11/395			
Carter, R., Kelly, R., Alexander, C., & Holmes, L. (2011). A collaborative university model for employee wellness. <i>Journal of American College Health</i> , 59(8), 761-763. doi:101080/07448481.20 10.544347	Qualitative study	Universities that promote employee health may see a healthy workforce and health costs savings.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Cawley, J., & Price, J.A. (2013). A case study of a workplace wellness program that offers financial incentives for weight loss. <i>Journal of Health Economics</i> , 32(2013), 794-803. doi:10.1016/j.jhealeco.2013.04.	Qualitative study	Offering financial incentives may motivate employees in a weight loss program.	Level VI
Centers for Disease Control and Prevention. (2013). <i>Workplace health promotion. Rising health care costs are unsustainable</i> . Retrieved from cdc.gov/workplacehealthpromotion/businesscase/reasons/rising/htm	Expert Opinion	Technology and increasing employee illnesses contribute to employee health care costs.	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Centers for Disease Control and Prevention. (2015a). <i>Wellness at work: Chronic disease at work</i> . Retrieved from cdc.gov/features/workingwellness/	Expert Opinion	Obesity and hypertension are the most common diseases among employees.	Level VII
Centers for Disease Control and Prevention. (2015b). <i>Workplace health promotion</i> . Retrieved from cdc.gov/chronicdisease/resources/publications/aag/workplace-health.htm	Expert Opinion	Employee chronic diseases and lack of productivity are a result of high health care costs. Workplace programs are helpful.	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Centers for Disease Control and Prevention. (2016). Health expenditures. Retrieved from cdc.gov/nchs/fastats/health-expenditures.htm	Expert Opinion	Out-of-pocket expenditure for complementary practitioners was higher than purchasing natural products. Adults spend higher than for children.	Level VII
Chiou, S., Chiang, J., Huang, N., Wu, C., & Chien, L. (2013). Health issues among nurses in Taiwanese hospitals: National survey.	Cross-sectional survey	Emergency room and intensive care nurses experience high levels of	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<i>International Journal of Nursing Studies</i> , 50(2013), 1377-1384. doi:10.1016/j.ijnurstu.2013.01.012		depression and the worst health than other nurses.	
Cho, H. K., Moon, W., & Kim, J. (2015). Effects of yoga on stress and inflammatory factors in patients with chronic low back pain: A non-randomized controlled study. <i>European Journal of Integrative Medicine</i> , 7(2), 118-123. doi:10.1016/j.eujim.2014.10.008	Randomized control study	Yoga may be an effective therapy for chronic lower back pain and stress.	Level II
Chong, C .S., Tsunaka, M., Tsang, H.W., Chan, E.P., & Cheung, W.M. (2011). Effects of yoga on stress management in healthy adults:	Systematic Review	Yoga has a positive effect in reducing stress in healthy adults.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>A systematic review.</p> <p><i>Alternative Therapies in Health and Medicine</i>, 17(1), 32-38.</p>		<p>Recommendation for long-term study.</p>	
<p>Clark, M.M., Warren, B.A., Hagen, P.T., Johnson, B.D., Jenkins, S.M., Verneburg, B.L., & Olsen, K.D. (2011). Stress level, health behaviors, and quality of life in employees joining a wellness center.</p> <p><i>American Journal of Health Promotion</i>, 26(1), 21-25.</p>	<p>Qualitative study</p>	<p>When planning to join a wellness program it is important to assess the stress levels of employees.</p>	<p>Level VI</p>
<p>Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress.</p>	<p>Validation of three data samples. One of college</p>		

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<i>Journal of Health and Social Behavior</i> , 24(1983), 385-386.	students, and one of individuals participating in a smoking cessation program	A moderate correlation was noted between stressful life events and the Perceived Stress Scale (PSS).	Level IV
Cosgrove, M.P., Sargeant, L.A., Caleyachetty, R., & Griffin, S.J. (2012). Work-related stress and Type 2 diabetes review and meta-analysis. <i>Occupational Medicine</i> , 62(3), 167-173. doi:10.1093/occmed/kqs002	Systematic Review	A high psychosocial environment has a direct association with the risk of T2DM.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Cramer, H., Ward, L., Saper, R., Fishbein, D., Dobos, G. & Lauche, R. (2015). The safety of yoga: A systematic review and meta-analysis of randomized controlled trials. <i>American Journal of Epidemiology</i> , 182(4), 281-293. doi:10.1093/occmed/kqs002	Systematic Review	Yoga practice appears to be a safe form of exercise as regular exercise.	Level I
Cramer, H., Langhorst, J., Lauche, R., & Dobos, G. (2013). Yoga for depression: A Systematic review and meta-analysis. <i>Depress Anxiety</i> , 30(11), 1068-1083. doi:10.1002/da.22166	Systematic randomized controlled trials (RCTs)	Yoga can be considered an ancillary therapy for treating depressive disorders.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Cui, J., Yan, J., Yan, L., Pan, L., Le, J., & Guo, Y. (2017). Effects of yoga in adults with Type 2 diabetes mellitus: A meta-analysis. <i>Journal of Diabetes Investigation</i> , 8(2), 201-209.	Meta-analysis	Yoga is beneficial to adult patients with T2DM. Further study needed on long-term effect of yoga and T2DM.	Level I
Daly, L.A., Haden, S.C., Hagins, M., Papouchis, N., & Ramirez, P.M. (2015). Yoga and emotion regulation in high school students: A Randomized Controlled trial. <i>Evidence-Based Complementary and Alternative Medicine</i> , 215, ID 794928, 1-8. doi.org10.1155/2015/794928	Randomized control trial	Data revealed that emotion regulation increased in adolescents participating in yoga than those who did not.	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Danielly, Y., & Silverthorne, C. (2017). Psychological benefits of yoga for female inmates. <i>International Journal of Yoga Therapy</i> . (Epub). doi:10.17761/IJYT2017	Qualitative mixed study	Yoga is an inexpensive and beneficial intervention in reducing some mental health issues and negative behaviors in prisoners.	Level VI
Deshpande, R.C. (2012). A healthy way to handle workplace stress through yoga, meditation, and soothing humor. <i>International Journal of Environmental Sciences</i> , 2(4), 2143-2154. doi:10. 9790/487X-1810031825	Exploratory study	Employee stress can be decreased if employers are receptive to including yoga in employee health programs.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Dhabhar, F. (2014). Effects of stress on immune function: The good, the bad, and the beautiful. <i>Immunology Research</i> , 58(2-3) 193-210. doi:10.1007/s120269-014-85187-0	Expert Opinion	Chronic stress can result in illness however, short-term stress can enhance immunosuppression such as wound healing.	Level VII
Djindjic, N., Jovanovic, J., Djindjic, B., Jovanovic, M., & Jovanovic, J.J. (2012). Associations between the occupational stress index and hypertension, type 2 diabetes mellitus, and lipid disorders in middle-aged men and women.	Prospective study	There is an association between work stress, hypertension, and metabolic disorders in male and females.	Level III

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
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<i>Annals of Occupational Hygiene</i> , 56(9), 1051-1062. doi:10.1093/annhyg/mes059			
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Donovan, R.O., Doody, O., & Lyons, R. (2013). The effect of stress and its implications for nursing. <i>British Journal of Nursing</i> , 22(16), 969-973. doi:10.12968/bjon.2013.22.16.969	Systematic Review	Stress is a part of life however, distress is chronic, can be debilitating, affect work and the ability to function effectively.	Level I
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Douglass, L. (2007). How did we get here? A history of yoga in	Systematic Review	Yoga, although new to the United States should be considered	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
America, 1800-1970. <i>International Journal of Yoga Therapy</i> , 17(1), 35-42.		an acceptable therapy in health care.	
Farquharson, B., Bell, C., Johnston, D., Jones, M., Schofield, P., Allan, J....Johnston, M. (2012). Nursing stress and patient care: real-time investigation of the effect of nursing tasks and demands on psychological stress, physiological stress, and job performance: Study protocol. <i>Journal of Advanced Nursing</i> , 69(10), 2327-2335. doi:10.1111/jan.12090	Real-time repeated measured scales such as The Job Content Questionnaire, Effort and PSS.	Real-time psychological and physiological observation showed possible routes toward stress reduction.	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Fiabane, E., Giorgi, I., Sguazzin, C., & Argentero, P. (2013). Work engagement and occupational stress in nurses and other health care workers: The role of organizational and personal factors. <i>Journal of Clinical Nursing</i> , 22(17-18), 2614-2624. doi: 10.1111/jocn.12084	Cross-sectional study	Organizational and personal factors are significantly associated with work engagement. Professional efficacy can predict job satisfaction.	Level VI
Field, T. (2016). Yoga research review. <i>Complementary Therapies in Clinical Practice</i> , 24, 145-161. Retrieved from doi.org/10.1016/j.ctcp.2016.06.005	Randomized controlled studies	Yoga has a therapeutic effect on mental health. More studies needed to compare yoga practice and active exercise.	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Field, T., Diego, M., Delgado, J., & Medina, L. (2013). Yoga and social support reduce prenatal depression, anxiety, and cortisol. <i>Journal of Bodywork, Movement, Therapies, 17</i> (4), 397-403. doi: 10.1016/j.jbmt.2013.010	Controlled trial no randomization	N=92 prenatally depressed yoga participants revealed lower depression, anger, and anxiety.	Level III
Field, T. (2012). Exercise research on children and adolescents. <i>Complementary Therapies in Clinical Practice, 18</i> (1), 54-59. doi:10.1016/j.ctcp.2011.04.002	Systematic review	ADHD and anxiety were studied in children revealed that yoga and tai chi may stimulate pressure receptors resulting in vagal activity and reduce stress.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>Gong, H., Ni, C., Shen, X., Wu, T., & Jiang, C. (2015). Yoga for prenatal depression: A systematic review and meta-analysis. <i>BMC Psychiatry</i>, 15,14. doi:10.1186/s12888-015-0393-1</p>	<p>Systematic Review and Meta-analysis</p>	<p>Pregnant women N=395 diagnosed with depression showed a reduction in depression when they participated in prenatal yoga classes.</p>	<p>Level II</p>
<p>Haden, S.C., Daly, L., & Hagins, M. (2014). A randomized controlled trial comparing the impact of yoga and physical education on the emotional and behavioral functioning of middle school children. <i>Focus on Alternative and Complementary Therapies</i>, 19(3), 148-155. doi:10.1111/fct.12130</p>	<p>Randomized control trial</p>	<p>n=32 middle school children reported an increase in negative emotions after participating in yoga while children in the PE group reported a decrease in these feelings.</p>	<p>Level II</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Hammer, L.B., & Sauter, S. (2013). Total worker and work-life stress. <i>Journal of Occupational & Environmental Medicine</i> , 55(12) Supplement, S25-S29. doi:10.1097/JOM.00000000000000043	Systematic Review	Work-life stress is a negative occupational exposure related to poor health behaviors such as smoking.	Level I
Harder, H., Parlour, L., & Jenkins, V. (2012). Randomized controlled trials of yoga interventions for women with breast cancer: A systematic literature review. <i>Support</i>	Systematic Review of randomized control trials	Evidence revealed that yoga can be used as a therapy for positive health and well-being of individuals.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p><i>Support Care Cancer</i>, 20(12), 3055-3064. doi:10.1007/s00520-012-1611-8</p>			
<p>Hartfiel, N., Havenhand, J., Khalsa, S.B., Clarke, G., & Krayer, A. (2011). The effectiveness of yoga for the improvement of well- being and resilience to stress in the workplace. <i>Scandinavian Journal of Work, Environment & Health</i>, 37(1), 70-76.</p>	<p>Randomized control trial</p>	<p>Participating in a short-term yoga program enhances emotional well- being and coping with stress in the workplace.</p>	<p>Level II</p>
<p>Herrero, S.G., Saldaña, M.A.M., Rodriguez, J.C., &</p>	<p>Data was extracted from the VI</p>	<p>Gender consideration is</p>	<p>Level IV</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Ritzel, D.O. (2012). Influence of task demands on occupational stress: Gender differences. <i>Journal of Safety Research</i> , 43(5-6), 365-374.	National Survey on Working Conditions (IVNSWC).	necessary when assigning tasks in high demand jobs.	
Hochart, C., & Lang, M. (2011). Impact of a comprehensive worksite wellness program on health risks, utilization, and health care costs.	Qualitative study	Involved leadership can help in building a culture of wellness and improve worker health	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
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<i>Population Health Management</i> , 14(3), 111-116. doi:10.1089/pop.2010.0009			
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Horwitz, J.R., Kelly, B.D., & DiNardo, J.E. (2013). Wellness incentives in the workplace: Cost savings through cost shifting to unhealthy workers. <i>Health Affairs</i> , 32(3), 468-476. doi:10.1377/hlthaff.2012	Randomized controlled study	Cost-shifting is helpful in employers saving on employee wellness programs.	Level II
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Huang, F., Chien, D., & Chung, U. (2013). Effects of hatha yoga on stress in middle-aged women. <i>Journal of Nursing Research</i> , 21(1), 59-65	Quasi-experimental	Participation <i>n</i> =63 in yoga showed a significant decrease in stress levels.	Level III

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
doi:10. 10097/jnr.0b13e3182829d6d			
Huff, J., & Ablah, E. (2016). Stress and presentism among Kansas Hospital employees: What stress reduction interventions might hospitals benefit from offering to employees? <i>Journal of Occupational and Environmental Medicine</i> , 58(11), e368-e369. doi:10.1097/JOM0000000000000872	Survey	Recognition, offering exercise space, yoga classes, and flex time improved communication with employer when given the time to do so.	Level III

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Hymel, P.A., Loeppke, R.R., Baase, C.M., Burton, W.N., Hartenbaum, N.P., Hudson, T.W....Larson, P.W. (2011). Workplace health protection and promotion: A new pathway for a healthier and safe workplace. <i>Journal of Occupational and Environmental Medicine</i> , 53(6), 695-702. doi:10.1097/JOM.0b013e31822005d0	Systemic Review	Implementation of strategies to decrease workforce injuries will enhance employee health and well-being.	Level I
Innes, K.E., & Selfe, T.K. (2016). Yoga for adults with Type 2 diabetes: A systematic review	Systematic Review	Yoga practices may promote significant T2DM management such as lipids levels,	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
of controlled trials. <i>Journal of Diabetes Research</i> , 2016, Article ID: 6979370, 1-23. doi.org/10.1155/2016/6979370		sleep, and glycemic control.	
Institute of Medicine (IOM). (2010). The future of nursing: Leading change, advance health. Washington, DC: Author.	Expert Opinion	Recommendations for nurses to utilize and advance their education and skills to advance health care and the nursing profession.	Level VII
Jeter, P.E., Slutsky, J., Singh, N., & Khalsa, S.B. (2015). Yoga as a therapeutic intervention: A bibliometric analysis of published	Systematic Review	Yoga practice in the clinical arena may result in positive health benefits.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>research studies from 1967 to 2013. <i>Journal of Complementary Medicine,</i> 21(10), 586-592. doi:10.1089/acm.2015.00 57</p>			
<p>Kang, S., Jo, H.S., Boo, Y.J., Lee, J.S., & Kim, C.S. (2015). Occupational stress and related factors among surgical residents in Korea. <i>Annals of Surgical Treatment and Research,</i> 89(5), 268-274. doi.org/10.4174/astr.2015. 89.5.268</p>	<p>Case controlled study</p>	<p>Surgical residents experience higher occupational stress than surgeons and other professionals.</p>	<p>Level IV</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Kaspin, L.C., Gorman, K.M., & Miller, R.M. (2013). Systematic review of employer-sponsored wellness strategies and their economic and health-related outcomes. <i>Population Health Management, 16</i> (1), 14-21. doi: 10.1089/pop.2012.0006	Systematic Review	Employee wellness programs are beneficial in improving employee health and financial stability.	Level I
Keller, A., Litzelman, K., Wisk, L.E., Maddox, T., Cheng, E.R., Creswell, P.D....Witt, W.P. (2012). Does the perception that stress affects health matter? The association with health and mortality. <i>Health Psychology, 31</i> (5), 677-684. doi:10.10327/a0026743	Separate logistic-regression	High amounts of stress levels can affect health and result in premature death by 43%.	Level V

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Khalsa, S. B., Butzer, B., Shorter, S. M., Reinhardt, K.M., & (2013). Yoga reduces performance anxiety in adolescent musicians. <i>Alternative Therapies, 19</i> (2), 34-45.	Case-controlled study	Yoga participants showed statistically significant reduction in MPA.	Level IV
Khalsa, S.B., Cope, S., Cohen, D., Hickey-Schultz, L., & Steiner, N. (2012). Evaluation of the mental health benefits of yoga in a secondary school: A preliminary randomized control trial. <i>Journal of Behavioral Health Services and Research, 39</i> (1), 80-90. doi:10.1007/s11414-011-9249-8	Case controlled study	Yoga may be effective in improving well-being, mental health, and executive functioning in the prison population.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Khamisa, N., Oldenburg, B., Peltzer, K., & Ilic, D. (2015). Work related stress, burnout, job satisfaction and general health of nurses. <i>International Journal of Environmental Research and Public Health</i> , 12(1), 652-666. doi:10.3390/ijerph120100652	Cross-sectional study	Staff issues are associated with burnout and job satisfaction affecting performance and productivity.	Level IV
Kivimäki, M., & Kawachi, I. (2015). Work stress as a risk factor for cardiovascular disease. <i>Current Cardiology Reports</i> , 17(9), 74. doi:10.1007/s11886-015-0630-8	Systematic Review	Age, socioeconomic background, and gender can affect job strain experiences.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Kullgren, J.T., Troxel, A.B., Loewenstein, G., Asch, D.A., Norton, L.A., Wesby, L....Volpp, K.G. (2013). Individual-versus group-based financial incentives for weight loss: A randomized controlled trial. <i>Annals of Internal Medicine</i> , 158 (7), 505- 51. doi:10.7326/0003-4819-158- 7-201304020-00002	Randomized control trials	Group-based financial incentive is more effective than individual incentive.	Level II
Landsbergis, P.A., Dobson, M., Koutsouras, G., & Schnall, P. (2013). Job strain and ambulatory blood pressure: A meta-analysis and systematic review. <i>American Journal of Public Health</i> , 103(3), e61-e71. doi:10.2105/AJPH.2012.301153	Meta- analysis	Workplace strain can result in hypertension. Wellness programs can facilitate cardiac- risk reduction programs.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Lathrop, B., & Hodnicki, D. (2014). “The Affordable Care Act: Primary care and the Doctor of Nursing Practice Nurse” OJIN: <i>Online Journal of Issues in Nursing</i> 19(2). doi:10.3912/OIJN.Vol198No02PPT02	Descriptive study	Professional and legal barriers are necessary to be removed for the DNP nurse to provide appropriate level of care.	Level VI
Lazarus, R.S. (1966). <i>Psychological stress and the coping process</i> . New York, NY: McGraw-Hill.	Expert Opinion	This provides a background on Lazarus’ stress model the Transactional Model of Stress and Coping (TMSC).	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Li, A.W., & Goldsmith C.W. (2012). The effects of yoga on anxiety and stress. <i>Alternative Medicine Review, 17</i> (1), 21-35.	Systematic Review	Evidence shows that yoga can be beneficial in reducing stress and anxiety.	Level I
Mark, G., & Smith, A.P. (2012). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. <i>Anxiety, Stress, & Coping, 25</i> (1), 63-78. doi:10.1080/10615806.2010.548088.	n=840 nurses completed a questionnaire	Workplace demands, and negative behaviors can contribute to high levels of depression and job satisfaction. Rewards and social support can lower anxiety and depression.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Matsushita, T., & Oka, T. (2015). A large-scale survey of adverse events experienced in yoga classes. <i>Biopsychosocial Medicine</i> , 9(9), 1-10. doi:10.1186/s13030-015-0037-1	Survey	Individuals with chronic diseases must be given special consideration when introducing yoga to them.	Level III
McCall, M., Thorne, S., Ward, S., & Heneghan, C. (2015). Yoga in adult cancer: An exploratory, qualitative analysis of the patient experience. <i>BMC Complementary and Alternative Medicine</i> , 15(1), 245-253. doi:10.1186/s12906-0738-9	Exploratory qualitative study	A positive experience is reported with no adverse events after participating in yoga treatment for patients with cancer.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Melynk, B.M., & Fineout-Overholt, E. (2011). <i>Evidence-based practice in nursing and health care: A guide to best practice</i> (2nd ed.). Philadelphia: PA. Lippincott, Williams & Wilkins.	Expert Opinion	Nurses will understand the importance of EBP in improving patient outcomes.	Level VII
Merrill, R.M., Aldana, S.G., Pope, J.E., Anderson, D.R., Coberley, C.R., Grossmeier, J.J., & Whitmer, R.W. (2013). Self-rated job performance and absenteeism according to employee engagement, health behaviors, and physical health. <i>Journal of Occupational & Environmental Medicine</i> , 55(1), 10-18. doi:10.1093/JOM.0b013e31827b73af	Qualitative study	Employee engagement and physical health were significantly associated with job performance and absenteeism.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Mohite, N., Shinde, M., & Gulavani, A. (2014). Occupational stress among nurses working in selected tertiary care hospitals. <i>International Journal of Science and Research</i> , 3(6), 999-1005.	Qualitative descriptive	Nurses experience frequent stressful situations, and this may have a negative effect on performance and organizational outcomes.	Level VI
Muirhead, J., & Fortune, C. (2016). Yoga in prisons: A review of the literature. <i>Aggression and Violent Behavior</i> , 28(2016), 57-63. doi:10.1016/j.avb.2016.03.013	Systematic Review	Yoga can positively affect mood, anxiety disorders, substance abuse, impulsivity, and other outcomes.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Nantsupawat, A., Nantsupawat, R., Kunaviktikul, W., Turale, S., & Poghosyan, L. (2016). Nurse burnout, nurse-reported quality of care, and patient outcomes in Thai hospitals. <i>Journal of Nursing Scholarship</i> , 48(1), 83-90. doi:10.1111/jnu.12187	Cross-sectional study	Burnout is high among nurses and this can significantly affect patient care.	Level IV
National Institute for Occupational Safety and Health (NIOSH). (2014). <i>Stress at work</i> . (Publication No. 99-101). Retrieved from cdc.gov/noish	Expert Opinion	Work and personal life balance, a supportive network, relaxation, and positive outlook can help in reducing perceived job stress.	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Neville, B.H., Merrill, R.M., & Kumpfer, K.L. (2011). Longitudinal outcomes of a comprehensive, incentivized worksite wellness program. <i>Evaluation & the Health Professions</i> . 34(1), 103-123. doi:10.1177/0163278710379222	Longitudinal study	Employer wellness programs showed improvement in blood pressure, BMI, and cholesterol.	Level III
Nyberg, S.T., Fransson, E.I., Heikkilä, K., Alfredsson, L., Casini, A, Clays, E... Kivimäki, M. (2013). Job strain and cardiovascular disease risk factors: Meta-analysis of individual-participant data from 47,000 men and women. <i>PLoS ONE</i> , 8(6), e67323. doi:10.101371/journal.pone.006732	Meta-analysis	Job strain are likely to develop into diabetes and other risk factors of cardiovascular diseases.	Level I I

Reference	Research Method	Main Findings	Level of Evidence
<p>Park, C.I., Braun, T., & Siegel, T. (2015). Who practices yoga? A systematic review of demographic, health-related, and psychosocial factors associated with yoga practice. <i>Journal of Behavioral Medicine</i>, 38(3), 460-471. doi:10.1007/s10865-015-9618-5</p>	<p>Systematic Review</p>	<p>Women of high socioeconomic background participate in yoga, that is related to psychosocial factors such as mindfulness.</p>	<p>Level I</p>
<p>Perelman, A.M., Miller, S.L., Clements, C.B., Rodriquez, A., Allen, K., & Cavanaugh, R. (2012). Meditation in deep south prison: A longitudinal study of the effects of Vipassana. <i>Journal of Offender Rehabilitation</i>, 51(3),</p>	<p>Longitudinal study</p>	<p>Vipassana yoga can be helpful in reducing chaos and stressors in prisons.</p>	<p>Level IV</p>

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
176-198. doi:10.1080/105096 74.2011.632814			
Polis, R.I., Gussman, D., & Kuo, Y.H. (2015). Yoga in pregnancy: An examination of maternal and fetal responses to 26 yoga postures. <i>Obstetrics and Gynecology</i> , 126(6), 1237-1241. doi:10.1097/AOG.00 0000000001137	Prospective study	Pregnant women <i>n</i> =25 showed no adverse maternal or fetal events after participating in 26 yoga postures.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Pollitz, K., & Rae, M. (2016). Workplace wellness programs characteristics and requirements. The Kaiser Family Foundation. Retrieved from kff.org/private-insurance/issue-brief/workplace-programs-characteristics-and-requirements/	Expert Opinion	Recommendations are for workplace wellness programs to be offered to all employees.	Level VII
Pronk, N.P. (2014). Placing workplace wellness in proper context: Value beyond money. <i>Prevention Chronic Disease, 11(7)</i> : E119. doi:10.588/pcd11.140128	Descriptive study	Workplace wellness programs should be assessed for its benefits, negative events, and the resources to gain.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Riley, K.E., & Park, C. L. (2015). How does yoga reduce stress? A Systematic Review of mechanisms of change and guide to future inquiry. <i>Health Psychology Review</i> , 9(3), 379-396. doi:10.1080/17437199.2014.981778	Systematic Review	Positive affect, self-compassion, and various psychological factors such as inhibition of salivary cortisol are related to stress response.	Level I
Roberts, R.K. & Grubb, P.L. (2014). The consequences of nursing stress and need for integrated solutions. <i>Rehabilitation Nursing</i> , 39(2), 62-69. doi:10.1002/rnj/.97	Systematic Review	Job stress is a major barrier in attaining nurses' wellness and safety. Stress reducing interventions is	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
		important in reducing nurses stress.	
Rongen, A., Robroek, S.J., van Lenthe, F.J., & Burdorf, A. (2013). Workplace health promotion: A meta-analysis of effectiveness. <i>American Journal of Preventive Medicine</i> , 44(4), 406-415. doi:10.1016/j.amepre.2012.12.007	Systematic Review	Workplace health programs are more effective in the younger population and depends on type and content.	Level I
Rosenblatt, L.E., Gorantla, S., Torres, J.A., Yarmush, R.S., Rao, S., Park, E.R... Levine, J.B. (2011).	Pilot Study	Yoga can be effective in the treatment of behavioral issues and some aspects of autism.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>Relaxation response-based yoga improves functioning in young children with autism: A pilot study.</p> <p><i>Journal of Alternative and Complementary Medicine</i>, 17(11), 1029-1055.</p> <p>doi:10.1089/acm.2010.0834</p>		.	
<p>Sharma, P., Davey, A., Davey, S., Shukla, A., Shrivastva, K., & Bansal, R. (2014). Occupational stress among staff nurses: Controlling the risk to health. <i>Indian Journal of Occupational & Environmental Medicine</i>, 18(2). 52-56.</p>	Cross-sectional study	Work-related stress accounts for nurses' health and impacts their ability to cope with job demands.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
doi:10.4103/0019527 8.146890			
Sharma, M. (2014). Yoga as an alternative and complementary approach for stress management: A systematic review. <i>Journal of Evidence-Based Complementary & Alternative Medicine</i> , 9(1), 59-67. doi:10.1177/2156587213503344	Systematic Review	Stress is a major health issue and yoga may be an efficient approach for stress management.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Singh, V.P., Khandelwal, B., & Serpa, N.T. (2015). Psycho-neuro-endocrine- immune mechanisms of action of yoga in type II diabetes. <i>Ancient Science of Life</i> , 35(1), 12-17. doi.org/10.4103/0257- 7941.165623	Systematic Review	Yoga has a positive effect on the immune system of diabetics.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Smith, M.A.P. (2012). Occupational stress, job characteristics, coping, and the mental health of nurses. <i>British Journal of Health Psychology</i> , 17(3), 505-521. doi: 10.1111/j.2044-8287.2011.02051.x.Epub	Case-control study	Job demands, and over-commitment were associated with higher levels of depression and anxiety.	Level IV
Sorrell, J. (2015). "Ethics: Employer-sponsored wellness programs for nurses: The ethics of carrots and sticks." <i>OJIN: Online Journal of Issues in Nursing</i> , 20(1). doi:10.3912/OJIN.Vol20No01E thCol01	Expert Opinion	A "carrot" approach to wellness programs target individuals changing to a healthy lifestyle. Ethical standards are important.	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Step toe, A., & Kivimäki, M. (2012). Stress and cardiovascular disease. <i>Nature Reviews Cardiology</i> , 9(6), 360-370. doi:10.1038/nrcardio.2012.45	Expert Opinion	Stress may be a contributing factor to the risk of cardiovascular disease. Further research is needed.	Level VII
Sureka, P., Govil, S., Dash, D., Dash, C., Kumar, M., & Singhal, V. (2014). Effects of Sudarshan Kriya on male prisoners with non-psychotic psychiatric disorders: A randomized control trial. <i>Asian Journal of Psychiatry</i> , 12, 43-49. doi:10.1016/j.ajp.2014.06.010	Randomized control trial	Practicing Sudarshan Kriya can significantly reduce depression and anxiety levels in male prisoners. Its effect on self-control and vitality were insignificant.	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Taneja, D. K. (2014). Yoga and Health. <i>Indian Journal of Community Medicine</i> , 39(2), 68–72. doi.org/10.4103/0970-0218.132716	Systematic Review	Practicing yoga benefits the mental, physical, social being, and promotes a sense of harmony with nature.	Level I
Tehrani, H., Rakhshani, T., Zadeh, D.S., Hosseini, S.M., & Bagheriyan, S. (2013). Analyzing the relationship between job stress to mental health, personality type and stressful life events of the nurses occupied in Tehran 115	Cross-sectional study	Increased stressful life events can result in workplace stress. Type A personality are prone to Experience mental disorders.	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>emergency. <i>Iranian Red Crescent Medical Journal</i>, 15(3), 272-273. doi: 10.5812/ircmj.1917</p>			
<p>Thomley, B.S., Ray, S.H., Cha, S.S., & Bauer, B. A. (2011). Effects of a brief, comprehensive yoga-based program on quality of life and biometric measures in an employee population: A pilot study. <i>Explore</i>, 7(1), 27-29. doi: 10.1016/j.explore.2010.10.004</p>	Pilot Study	<p>Yoga-based wellness programs make positive changes in the health and well-being of employees.</p>	Level IV

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Toh, S.G., Ang, E., & Devi, M.K. (2012). Systematic review on the relationship between the nursing shortage and job satisfaction, stress, and burnout levels among nurses in oncology or hematology settings. <i>International Journal of Evidence-Based Health care</i> , 10(2), 126-141. doi:10.1111/j.1744-609.2012.00271.x	Systematic Review	Nursing shortage is associated with nurses' job satisfaction and non-Magnet designated hospitals are likely to experience inadequate staffing.	Level I

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Trivellas, P., Reklitis, P., & Platis, C. (2013). The effect of job related stress on employees' satisfaction: A survey in health care. <i>Procedia-Social and Behavioral Sciences</i> , 73, 718-726. doi.org/10.1016/j.sbspro.2013.02.110	Participants received a 7-point questionnaire and the Job-Related Tension Scale	Conflict, lack of autonomy, and workload were associated with job satisfaction. Lack of access to information affects sense of job security.	Level IV
Tsutsumi, A., Kayaba, K., & Ishikawa, S. (2011). Impact of occupational stress on stroke across occupational class and gender. <i>Social Science & Medicine</i> , 72(10), 1652-1658. doi:10.1016.socscimed.2011.03.026	Prospective Study	No significant differences noted between the incidence of stroke among the job characteristics in female workers.	Level II

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Tucker, S.J., Weymiller, A.J., Cutshall, S.M., Rhudy, L., M., & Lohse, C.M. (2012). Stress ratings and health promotion practices among RNs: A case for action. <i>Journal of Nursing Administration, 42(5), 282- 292.</i> doi:10.1097/NNA.0b013e31 853585f	Qualitative Study	Workplace interventions promoting nurses' health and wellness, reduce home and work stress that influences positive delivery of patient care and outcomes.	Level VI
United States Department of Health and Human Services. (2014). <i>Healthy People 2010: Understanding and improving health, 2nd ed.</i> Washington, DC: U.S.	Expert Opinion	Individuals with high income tend to fare better and live three years longer than those individuals in the lower income population.	Level VII

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
United States Department of Labor. (2014). The Affordable Care Act and Wellness programs. Employee Benefits Security Administration. Retrieved from dol.gov/ebsa/newsroom/fswellnessprogram.html	Expert Opinion	The ACA supports the design of workplace wellness programs to improve employee health.	Level VII
Van Uden-Kraan, C.F., Chinapaw, M.J.M., Drossaert, C.H.C., Verdonck-de Leeuw, I.M., & Buffart, L.M. (2013). Cancer patients' experiences with and perceived outcomes of yoga: Results from focus groups. <i>Support Care Cancer</i> , 21(7), 1861-1870. doi:10.1007/s005209-013-1728-4	Qualitative Descriptive study	Patients diagnosed with different types of cancer perceived psychosocial and physical benefits of practicing yoga.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Voltmer, E., Rosta, J., Siegrist, J., & Aasland, O.G. (2012). Job stress and job satisfaction of physicians in private practice: Comparison of German and Norwegian physicians. <i>International Archives of Occupational and Environmental Health</i> , 58(7), 819-828. doi:10.1007/s00420-011-0725-5	Cross-sectional study	Job satisfaction and reward were significant factors for Norwegian physicians while German physicians demonstrated higher stress levels.	Level VI
Wang, L., Tao, H., Ellenbecker, C.H., & Liu, X. (2012). Job satisfaction, occupational commitment and intent to stay among Chinese nurses: A cross-sectional survey. <i>Journal of Advanced Nursing</i> , 68(3), 539-549. doi:10.1111/j.1365-2648.2011.05755	Cross-sectional study	Nurses' job satisfaction and their intent to stay includes modification of tasks, opportunity to grow professionally, and salary increase.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
Weaver, L.L., & Darragh, A.R. (2015). Systematic Review of yoga interventions for anxiety reduction among children and adolescents. <i>American Journal of Occupational Therapy</i> , 69(6), 1-9. doi:10.5014/ajot.2015.020115	Systematic Review	Children with anxiety disorders who participated in yoga experienced reduced anxiety.	Level I
Woodyard, C. (2011). Exploring the therapeutic effects of yoga and its ability to increase quality of life. <i>International Journal of Yoga</i> , 4(2), 49-54. doi:10.4103/0973-6131.85485	Qualitative Study	Yoga practices enhance muscular strength, flexibility, reduces stress, and improve overall quality of life.	Level VI

(table continues)

Reference	Research Method	Main Findings	Level of Evidence
<p>You, L.M., Aiken, L.H., Sloane, D.M., Liu, K., & He, G.P. (2013). Hospital nursing, care quality, and patient satisfaction: Cross-sectional surveys of nurses and patients in hospitals in China and Europe. <i>International Journal of Nursing Studies</i>, 50(2), 154-161. doi:10.1016/j.ijnurstu.2012.05.003</p>	<p>Cross-sectional study</p>	<p>Improving the quality of work life environment and nursing education for Chinese nurses will improve hospital and patient outcomes.</p>	<p>Level VI</p>

Appendix B: Letter of Invitation to participate in a Project Interview

Current Date

Participant's Name

Participant's Address

Dear _____

I am inviting you to participate in a one-hour interview I will be conducting as partial fulfillment for the requirement for obtaining a Doctor of Nursing Practice Degree from Walden University. The purpose of this project is to evaluate how participants in the hospital's employee wellness yoga program perceive the impact of the program on their stress reduction and health promotion activities.

Your participation in a one-hour audiotaped interview will be voluntary. The audiotape will be used solely for facilitating and transcribing your responses which will be kept confidential, by using aliases to replace your name to conceal your identity. There are no risks or compensation involved for participating in the interview. If you decide to participate in the interview you may contact me at (XXX)-XXX-XXXX or email me at XXX@waldenu.edu.

Thank you

Rosemarie Lee

Doctor of Nursing Practice Student

Walden University

Appendix C: Interview Questions

1. What made you decide to participate in the yoga class?

2. How do you perceive stress?

3. How would you describe workplace stress?

4. How often do you participate in the yoga class?

5. Describe how you feel before and after you participate in the yoga class?

6. On a scale of 1 to 5 with 5 being the maximum work stress, how would you describe your work stress perception today?

7. What other activity (s) are you participating in (a) just for fun (b) to help reduce

any perceived stress?

8. How does participating in this program help with your health management?

9. Are there features of the class that you think can be improved?

10. Would you recommend this yoga class to a colleague? (b) What recommendations you have (if any) for prospective participants to the yoga class?

11. Have you seen any benefits of participating in the yoga class in reducing your perceived stress?

12. Would you like to share any other information about your experience in the yoga class?

Thank you for participating in this interview.