

2019

The Heart of Atrial Fibrillation: Integrating Yoga for Holistic Care

Jessica Lee McAlpine
Augsburg University

Follow this and additional works at: <https://idun.augsburg.edu/etd>



Part of the [Alternative and Complementary Medicine Commons](#), and the [Nursing Commons](#)

Recommended Citation

McAlpine, Jessica Lee, "The Heart of Atrial Fibrillation: Integrating Yoga for Holistic Care" (2019). *Theses and Graduate Projects*. 929.
<https://idun.augsburg.edu/etd/929>

This Open Access Thesis is brought to you for free and open access by Idun. It has been accepted for inclusion in Theses and Graduate Projects by an authorized administrator of Idun. For more information, please contact bloomber@augsb.org.

THE HEART OF ATRIAL FIBRILLATION:
INTEGRATING YOGA FOR HOLISTIC CARE

JESSICA LEE MCALPINE

Submitted in partial fulfillment of
the requirement for the degree of
Doctor of Nursing Practice

AUGSBURG UNIVERSITY
MINNEAPOLIS, MINNESOTA

2019

AUGSBURG UNIVERSITY®

**Augsburg University
Department of Nursing
Doctor of Nursing Practice Program
Scholarly Project Approval Form**

This is to certify that **Jessica L. McAlpine** has successfully presented her scholarly doctoral project entitled **"The Heart of Atrial Fibrillation: Integrating Yoga for Holistic Care"** and fulfilled the requirements for the Doctor of Nursing Practice degree.

Date of presentation: May 3, 2019.

Committee Members' Signatures:

Major Advisor: Joyce P. McAlpine DNP, RN Date May 3, 2019

Faculty Member: Kim Mottale DNP RN Date May 3, 2019

Community Member: Cassie Tessem Date May 3, 2019

Department Chair: Joyce P. McAlpine DNP, RN Date May 2, 2019

Table of Contents

FIGURES	v
TABLES	vi
PRESENTATIONS.....	vii
DEDICATION	viii
ACKNOWLEDGEMENTS.....	ix
ABSTRACT	x
CHAPTER ONE: INTRODUCTION.....	1
Background	1
Significance of Project	4
Nursing Theoretical Foundation.....	6
CHAPTER TWO: LITERATURE SUPPORT.....	9
Yoga and The Heart	9
Yoga and Quality of Life: A Context-thick Concept	13
Yoga as a Holistic Practice.....	16
Transpersonal Caring	19
Opening to the Spiritual and Unknown.....	21
CHAPTER THREE: INTEGRATING YOGA.....	22
Description of the Project.....	22
Theoretical Framework and Conceptual Model.....	27
CHAPTER FOUR: EVALUATION.....	35
Evaluation Process	35
How the Project Advances Nursing Practice	39
Personal Reflection and Insights.....	40
CHAPTER FIVE: CONCLUSIONS	43
Doctor of Nursing Practice Essentials.....	43

Future Expansion and Sustainability.....45

REFERENCES47

APPENDICES57

Appendix A: PDSA Worksheet.....57

Appendix B: Simple Yoga Sequence58

Appendix C: Online Yoga Resource Link59

Appendix D: DNP Project Presentation Slides60

Figures

FIGURES

Figure 1: PDSA cycle.....	23
Figure 2: Project data	26
Figure 3: Conceptual model: Unfolding lotus.....	28

Tables

TABLES

Table 1: Possible mechanisms by which yoga affects afib	10
Table 2: Astanga (the eight limbs of yoga).....	19

Presentations

The Heart of Atrial Fibrillation: Integrating Yoga for Holistic Care

Poster Session

April 26th, 2019

Minnesota Advanced Practice Registered Nurse Coalition Conference

Burnsville, MN

Dedication

This project is dedicated to my parents. To my mother, Debra Perry, who is my inspiration and my nurse hero. Throughout my entire life she has modeled how to be a kind, caring, and knowledgeable nurse and leader. She is endless love and strength embodied. To my father, Paul Perry, who sacrificed his college dreams to provide for his family and instilled in me a deep love of education. He is intelligence, curiosity, and joy in learning personified.

Acknowledgements

First and foremost, I would like to thank my husband, Nathan McAlpine, for his support and for giving me the strength to chase my dreams. He has been my hero, love, joy, personal grammar cop/editor, and biggest cheerleader. To my children, Kaia and Connor, thanks for all the snuggles and hours spent doing homework together which motivated me to stay on task throughout this project. I would like to thank my faculty advisor on this project, Dr. Joyce Miller, for her mentorship, valuable guidance, advice, and the many hours spent assisting with and editing my project. Also, I would like to take this opportunity to thank the DNP faculty and staff at Augsburg University for the learning opportunities and guidance which helped me grow as a nurse and successfully complete my project. I would like to thank my DNP classmates who, with tears and laughter, have shared in this journey with me. Finally, an honorable mention goes to all the rest of my family and friends for their understanding, unwavering support, and love.

Abstract

Atrial fibrillation (afib) is a chronic disease with no reliable cure that is caused by a chaotic heart rhythm. The heart has both metaphysical and physical meaning as the place where the spirit resides, a symbol of love, and as an organ that provides life. Yoga can be integrated as a holistic modality that has both physical and metaphysical benefits.

Literature demonstrates that yoga can reduce self-assessed symptoms of afib, secondary outcomes, and objective episodes of afib. Negative emotional states can increase afib frequency. Yoga has been found to improve emotional states, ability to cope with chronic disease, perceived wellness, and quality of life. This project introduced yoga as a holistic modality to 12 patients with a diagnosis of afib and utilized a Plan-Do-Study-Act cycle for rapid quality improvement. Of the patients introduced to yoga, 83% were willing to learn more and practice yoga on their own. At the 12 week follow up, 33% were practicing at least some yoga, 25% reported an improved feeling of wellness, 33% found the yoga sequence helpful, and 8.3% found the online resource helpful. Watson's human caring theory was chosen as the theoretical foundation of this project as it focuses on caring, transcends cure, and emphasizes wellness independent of a bio-medical cure. The concepts of holistic transpersonal care and being open to the spiritual in human caring theory is synergistic with the concept of connection with the universe, which is central to yoga practice. Future direction includes the design and development of a Yoga for Heart Health group class.

Keywords: atrial fibrillation, cardiac, heart, heart rhythm, holistic nursing, integrative care, meditation, mind-body-spirit, PDSA, pranayama, yoga

Chapter One: Introduction

Diagnosis of a chronic disease can be a life-changing event for individuals. One such chronic disease, atrial fibrillation (afib), is an epidemic disease caused by a chaotic, irregular heart rhythm in the atria (HRS, 2017). The Heart Rhythm Society (2017) describes afib as the most common arrhythmia where the atria fibrillate creating an irregular rhythm that can lead to stroke if left untreated. Afib's most impactful consequences are related to its relationship with stroke, heart failure, anxiety, and dementia. Medicare costs associated with afib related stroke in the United States are \$2.6 billion in the first year alone (Reynolds & Essebag, 2012). Besides the monetary costs of afib, there can also be a substantial burden to people's quality of life (QOL). A holistic approach to care, such as yoga, is necessary to maximize positive outcomes, reduce risks, reduce disease-related anxiety and stress, and help patients develop active coping. To improve patient care, this project introduced yoga as a holistic modality to 12 patients with a diagnosis of afib at a large urban medical Afib Center and utilized a Plan-Do-Study-Act cycle for rapid quality improvement.

Background

The Afib Center was first formed in 2016 and is staffed by Cardiac Electrophysiologists (EP) and Nurse Practitioners (NP). The patients that will be seen for this project will be from two different locations. The first location is in Minneapolis, MN and is a modern, urban, 342,000-square-foot care facility that opened in February 2016 (About the clinics and surgery center, 2016). The second location is the community outreach clinic in Fridley, MN. The population focus of this project is adult patients,

mostly elderly, living with afib and treated at the Afib Center in Minneapolis or Fridley. A total of 12 patients will be introduced to yoga during this project.

The project will integrate yoga as therapeutic intervention for patients diagnosed with afib through a brief introduction to yoga by a NP in the Afib Center who, to deepen her understanding of yoga and its application as an integrative therapy, is working on her Registered Yoga Teacher (RYT) certification through The Yoga Alliance (TYA). TYA (2017) was formed over 20 years ago to establish national standards in the United States for training yoga teachers in response to the varied, lack of insight into the deeper meaning of yoga intended by its creators, and often dangerous training due to the absence of anatomical knowledge that was being engaged before that time.

Yoga Alliance has since grown to become the most significant international nonprofit and is setting standards for safer yoga practice, honoring the history, language, and traditions of yoga practice to help minimize cultural appropriation (TYA, 2017). Rogers (2006) defines cultural appropriation as an active “taking of a culture’s symbols, artifacts, genres, rituals, or technologies by members of another culture” (p. 474) and then making it one’s own. Yoga has become a commodity which has been drastically altered from its original purpose and form to be more palatable for Western consumption. This appropriation and resulting transformation help to sustain global geopolitical imbalance as the original culture sees little profit or benefit from the commercialization of its cultural history (Stam & Shoat, 2005). An essential component of RYT training is to learn the rich history of yoga as well as key Sanskrit terminology. Language is essential to understanding meaning and purpose of yoga and “Sanskrit is the language of

yoga” (Bachman, 2005, p. 1). RYTs are trained that yoga has always been syncretic, that it is a holistic practice, and to teach as it has been practiced for thousands of years.

Currently, there is no focus on holistic care or integrative modalities for the treatment of afib at the Afib Center. The approach utilized is purely bio-medical, which could lead to disappointment for both the providers and the patients. Patients often approach afib as if their heart is a simple machine that has malfunctioned, and the NP is an electrician who can rewire the heart or ‘fix-it’. Unfortunately, this is not true and can lead to dissatisfaction among patients, as well as, frustration among NPs when a quick-fix is not achieved. There is currently no reliable cure for afib, only symptom management through heart rate control, reduction of the frequency of afib episodes with antiarrhythmic drug therapy or ablation, and risk reduction modalities such as anticoagulation (Prystowsky, Padanilam, & Fogel, 2015). Individuals who are affected by chronic illness, such as afib, may be subjected to long-term treatments. These individuals could benefit from holistic care that incorporates their physical, emotional, social, and spiritual wellbeing. Holistic medicine focuses upon the physical, nutritional, environmental, emotional, spiritual and lifestyle of an individual (Principles of holistic medicine, n.d.). Yoga has the potential to improve the quality of life of people living with afib, reduce anxiety, and improve coping skills of both patients and families.

There are several mechanisms of action that can be used to explain the influence that yoga has on the human body. The endocrine effects of yoga include decreases in cortisol, and increases in serotonin and melatonin (Mehrotra, 2016). These endocrine effects result in reduced anxiety and depression, improved self-control and sleep, and better insulin sensitivity (Mehrotra, 2016). The nervous system effects of yoga include

decreased responsiveness of the autonomic nervous system, increased response of the peripheral nervous system, and increased gamma-aminobutyric acid (GABA) which regulates communication in the nervous system (Mehrotra, 2016). These nervous system effects decrease heart rate (HR), blood pressure (BP), and anxiety. Other impacts of yoga include increased muscle strength, improved balance, and reduced oxygen consumption (Mehrotra, 2016). The complete benefits of yoga on the heart cannot be explained through a bio-medical lens alone.

Mehrotra (2016) states that the Sanskrit root of the word yoga is Yuj which means to join or create a union of the individual consciousness with the universal consciousness. Humans have been losing awareness of their connection to the universe and the planet yet, despite this lack of awareness, the connection remains of vital importance to humans and the earth (Berry, 1999). Since times of antiquity and ancient Greek mythology, the heart has been known as the seat of the soul (Lykouras, Poulakou-Rebelakou, & Ploumpidis, 2010). Sickness of the heart, including afib, is becoming more prevalent. There is room for the unknown and contemplation that there is a disconnect between individuals and the universe that may affect the health of people.

Significance to Practice

The burden of afib is snowballing. Afib incidence is projected to double in the United States (US), from 1.2 million new cases diagnosed in 2010 to 2.6 million new cases expected to be diagnosed in 2030 (Colilla, Crow, Petkun, Singer, Simon, & Liu, 2013, p. 1144). Given this increase in incidence, afib prevalence in the US is projected to increase from 5.2 million total cases of afib in 2010 to 12.1 million total cases in 2030 (Colilla et al., 2013, p. 1144). For the worldwide population aged 40 years or older, the

lifetime risk of developing afib is approximately 1 in 4 (Lane, Skjoth, Lip, Larsen, & Kotecha, 2017). Afib is a significant concern among the vulnerable elderly population as it is more common in adults over 65 years-old, the patients within this population are often not ideal candidates for bio-medical interventions, and afib can lead to other serious medical problems including stroke and death.

Emerging data indicate that negative emotions, including sadness, anxiety, anger, and stress, can increase the incidence of symptomatic afib episodes in patients with a history of afib (Lampert, Jamner, Burg, Dziura, Brandt, Liu, Soufer, 2014). Lampert et al. (2014) also find that a good mood or emotions such as happiness are protective against afib, reducing the risk of afib episodes by 85%. Afib also has a complex relationship with anxiety and depression where symptomatic afib increases anxiety and depression, as well as, anxiety and depression increase incidence of afib episodes (Patel, McConkey, Sohaney, McNeil, Jedrzejczyk, & Armaganijan, 2013). Treating these emotions with conventional Western medical modalities in patients with afib is complicated by the fact that concomitant use of drugs for mental health and antiarrhythmic therapy drugs used to treat afib have a small risk of causing QT prolongation which increases the risk of the lethal arrhythmia torsade de points (Patel et al., 2013). Many mental health drugs may also increase the risk of bleeding when taken with afib anticoagulation therapies such as warfarin and dabigatran (Patel et al., 2013). Anxiety and depression may also increase the risk of reoccurrence of afib after circumferential pulmonary vein ablation for treatment of afib (Yu, Zhao, Wu, Qin, Huang, Cui, & Huang, 2012). Yoga is a low-risk modality that can help to reduce anxiety and depression, decrease episodes of afib, and improve the quality of life of patient's living with afib.

This project advances nursing practice with application towards transcultural leadership by providing the integrative healing modality of yoga to help control afib symptoms, episodes, reduce risk factors, increase emotional wellbeing, address spiritual needs, and provide a social outlet for patients with afib. Also, this project promotes the nursing view of holistic caring. The American Holistic Nurses Association (AHNA) (2018) defines holistic nursing as “all nursing practice that has healing the whole person as its goal” (para 1) and that it “leads the nurse to greater awareness of the interconnectedness of self, others, nature, spirit, and relationship with the global community” (para 2). Yoga taught by an RYT is an ideal integrative medicine intervention for the holistic transcultural nurse to consider. Yoga encompasses the physical (Hatha Yoga), as well as the emotional, spiritual, and mental (Raja Yoga) (Satchidananda, 2017). Yoga has the potential to increase an individual’s connection to the universe. Also noteworthy is the fact that yoga can provide a social outlet when practiced in a group setting.

Nursing Theoretical Foundation

The nursing theoretical foundation that will guide this project is Jean Watson’s (2008) Theory of Human Caring. The Theory of Human Caring focuses on caring and transcends cure. Watson (2012) states that nurses must see beyond the fix-it model of medicine where the human body is discussed in machine metaphors and instead look for other ways of knowing and being. The Theory of Human Caring highlights the importance of universal connection and holistic care. The idea of universal connection in Watson’s theory is synergistic with the thousands-of-year-old concept of Yuj, joining of the individual with the universe, which is central to yoga practice (Carrera, 2006). When

developing a project centered around a disease process that has no reliable cure, it becomes essential to look for a theory that emphasizes wellness independent of a bio-medical cure.

The Other is a concept in phenomenology that is used to define the differences between human beings, humans and animals, or humans and everything else (Hegel & Miller, 1977). Over the past several hundred years, humans have turned away from awareness of connection to the universe and focused on reducing or using the Other. The world has gone from one of balance to one of unfettered human consumptions (Berry, 1999). Intention has shifted from balance and harmony to greed and egocentricity. The paradigm shift away from awareness of connection to one-sided vision has not changed the reality of the universal connection. The world and the humans living on it are becoming sicker as they continue to turn a blind eye to the concept of connection. The integral connection between human beings and the world is inescapable.

Watson (2008, 2012) describes ten *caritas* of heart-centered caring and compassion that represent the core of caring in the Theory of Human Caring. The two concepts this project focuses on are the following: the development of transpersonal caring relationships and opening up to the spiritual and unknown (Watson, 2008). The concept of transpersonal caring relationship focuses on the connection between humans (the nurse and the patient) and their combined connection to the “universal source for healing and renewal” (Watson, 2012, p. 75). The concept of opening up to the spiritual and unknown means that the nurse should acknowledge that there are mysteries in life without answers and allow space for spiritual forces (Watson, 2008). These *caritas* have

the power to facilitate wholeness, wellness, and the evolution of humanities' universal connection.

In conclusion, Chapter 1 describes a decrease in QOL in patients living with afib due to sequelae of afib related illness, such as stroke, and furthermore, the relationship between afib and emotional states, such as anxiety and depression, was established. Afib can harm patients' lives and health, and there is substantial difficulty in managing this chronic disease that has no reliable cure using a strict Western medical model. In Chapter 2, the literature review will include an exploration of the relationship between QOL and yoga, the relationships between negative emotional states and yoga, and will also examine how the practice of yoga directly affects afib, secondary outcomes, and afib risk factors in patient populations.

Chapter Two: Literature Support

Chapter 1 highlighted the devastating effects that living with a diagnosis of afib has on people's lives. To deepen understanding and set a theoretical framework for this project an exploration of literature support was completed. Literature support presented in Chapter 2 addresses how yoga relates to the heart through primary effects and risk factor modification, explores QOL as an outcome measure, yoga as a holistic practice, and delves into Watson's (2012) Theory of Human Caring concepts of development of transpersonal caring relationships and opening up to the spiritual and unknown.

Yoga and the Heart

The title of this project: *The heart of atrial fibrillation: Integrating yoga for holistic care* eludes to the historical, spiritual, and metaphoric importance of the heart as the seat of the soul. Butcher (2002), in his landmark paper, describes the heart as "humankind's most enduring, important, evocative, and provocative symbol" (p. 7). Butcher (2002) explores the metaphysical and physical meaning of the heart as both the place where the spirit resides and as an organ that provides life while simultaneously symbolizing love and compassion. Afib is a sickness of the heart. Afib is the most common arrhythmia in the world, being an electrical conduction disorder that causes the heart to beat irregularly and can also cause tachycardia (HRS, 2017). Medical modalities utilized to manage afib can be costly and may have unwanted side effects. Yoga can be used as a holistic, integrative modality that is available to the population on a wide scale and may provide benefit in the management of afib as it has positive effects on both the physical and metaphysical heart.

The practice of yoga directly affects primary outcomes of afib in patient populations and risk factors for afib. Yoga has the potential to directly impact primary outcomes of afib such as afib burden, heart rate, and patient symptoms (Lakkireddy et al., 2013; Wahlstrom, Karlsson, Medin, & Frykman, 2017). In the Yoga My Heart Study, Lakkireddy et al. (2013) found yoga practice can significantly reduce the number of afib episodes measured objectively with cardiac monitoring, as well as, systolic blood pressure, and heart rate. Reduction in blood pressure and heart rate can reduce the frequency of afib episodes, patient symptoms, and decrease the risk of tachy-mediated heart failure because of afib (Wahlstrom et al., 2017). Yoga can also reduce subjective measures of self-rated anxiety, depression, as well as, improve QOL scores (Lakkireddy et al., 2013; Wahlstrom et al., 2017). It is important to note that both Lakkireddy et al. (2013) and Wahlstrom et al. (2017) utilized yoga as an integrative therapy combined with standard guideline-directed medical treatments. Table 1 describes the possible mechanisms by which yoga affects afib.

Table 1 Possible Mechanisms by which Yoga Affects Afib	
Decreased	Increased
Cortisol Anxiety Depression Heart rate Blood pressure Oxygen consumption Afib burden Afib related patient-reported symptoms Intima-media thickness	Serotonin Melatonin QOL Sleep quality GABA Muscle strength Cerebral blood flow in areas that regulate emotion and autonomic function

Yoga has also been found to have a positive effect on risk factors associated with afib including coronary artery disease (CAD), hypertension, and negative emotional states. Studies have shown that yoga practice improves heart health in individuals living with CAD. Manchanda et al. (2013) showed that a year of yoga practice involving asanas, pranayama, and meditation lead to a significant reduction in artery intima-media thickness which is a measure of atherosclerotic vascular disease. One metaanalysis which included 48 randomized control trials (RCT) with over 6600 combined participants showed that yoga could improve blood pressure and is effective as an integrative therapy (Tyagi, A. & Cohen, M., 2014). Despite the need for more scientific research to demonstrate reproducible results, yoga as a holistic integrate modality may provide benefits for individuals living with afib.

In the significance section of this project, the relationship between afib and negative emotional states, such as anxiety and depression, was established. Studies over the past several decades show that yoga can have a positive impact on emotional states yet, until recently, little work has been done to quantify the type of yoga practice or dosing required for the most favorable impact. Roche, Barrachina, Fernandez, & Bentancort (2017) conducted a study on 100 participants to determine if different aspects of yoga would have different outcomes. Outcomes measured included BP, HR, interoceptive awareness, mindfulness, anxiety, depression, perceived happiness, and perceived stress pre-study and post-study. All instruments used to measure outcomes were standardized and validated (Roche et al., 2017). The participants were randomized into one of 4 groups: yoga practice, pranayama, meditation, or control group. There was a significant improvement in emotional states and mindfulness in all three intervention

groups over the control group, which scored some of these areas worse post-study than pre-study (Roche et al., 2017). The meditation group had the most impactful changes followed by both the yoga and the pranayama groups. This study highlights the fact that the benefits of yoga are not only from the physical postures (asanas) and exercise that tend to be the focus of yoga practice in mainstream Western cultures. It is essential to include the traditional yoga aspects of pranayama and meditation in yoga practice.

New research in the field also explores ‘how’ yoga may influence physical processes. One mechanism through which yoga may provide benefit is by reducing serum cortisol levels. Thirthalli et al. (2013) conducted a non-randomized control trial evaluating the baseline and post-study serum cortisol levels and self-rated depression scores in 54 participants. The researchers found that adherence to yoga treatment led to a decrease in serum cortisol. Participants in the yoga-only group “showed a high correlation between reduction of serum cortisol level and antidepressant response” (Thirthalli et al., 2013, p. S407). Benvenuti et al. (2017) found that 30 minutes of Hatha Yoga which included asanas, pranayama, and mediation before performing a psychological arithmetic-related stress task led to immediate benefits for stress reactivity and acute stress recovery time, as well as a decrease in salivary cortisol.

Yoga has been found to lead to a reduction in symptoms of anxiety and depression and the research in the field has been moving towards looking at specific recommendations for yoga interval and duration for the most impactful benefit. Telles, Pathak, Kumar, Mishra, & Balkrishna (2015) found that daily time spent practicing yoga, for at least four days per week, had a direct relationship with improvement in anxiety scores, and that duration in months of regular yoga practice had a positive effect on

depression scores. The results revealed that yoga can quickly reduce anxiety with daily practice and, yoga can be beneficial in depression but may take more time of dedicated practice to see maximal benefit.

The need for longer duration of yoga practice to have a positive effect on depression may be because yoga acts on neurotransmitter secretion such as GABA and dopamine, and improvement in depression scores with yoga practice may require changes of the synaptic receptors which take time (Telles et al., 2015; Streeter et al., 2007; Kjaer et al., 2002). In addition, Newberg et al. (2010) found that the cerebral blood flow in areas that regulate emotion and autonomic function, such as the “prefrontal cortex, parietal cortex, thalamus, putamen, caudate, and midbrain”, of long-term meditators was significantly higher compared to non-meditators indicating that long-term practice changes the function of the brain (p. 899). The limitations found in the literature review are that there is no standard definition of yoga in the literature and most studies have a small sample size and are single-center. Despite these serious limitations, yoga is a low-cost, low-risk, non-invasive holistic practice that is safe to use as an integrative modality. To adhere to the concept of holistic care, it is crucial to examine how yoga effects outcomes such as QOL which look beyond the physical.

Yoga and Quality of Life: A Context-Thick Concept

Both the background and the significance of the project illustrate the negative impact that afib can have on patients' QOL. QOL is a comprehensive multidimensional concept that encompasses both positive and negative aspects of life (CDC, 2016). The literature review will include an exploration of the relationship between QOL and yoga to establish yoga as an effective or ineffective intervention.

Consideration of self-assessed QOL in the search for effective interventions for afib is a shift away from the paradigm of Western medicine's focus on strictly objective outcomes. The traditional medical-model which focuses on how to approach a chronic disease such as afib has been context-thin. Scott (1998) defines thin as "formulaic simplifications" (p. 309). Perhaps in an attempt at efficiency or to make sense of complexity, Western medicine has reduced people into disease and body systems. This simplification does not lead to a system that is designed to handle the complex nature of a human being. The context-thin approach to medicine identifies disease and prescribes treatment for that disease (Scott, 1998). Context-thick considers the many variables and complexities of a person's life (Scott, 1998). People are inherently complex, and body systems do not act independently from each other or the person in which they are functioning.

Understanding perceived QOL is not only essential to the comprehension of the phenomena, but it may also be a "more powerful predictor of mortality and morbidity than many objective measures of health" (CDC, 2016, p.1). According to the CDC (2016), some of the domains that influence QOL are health, culture, spirituality, community, home, socioeconomic status, functional status, and social support. Assessment of QOL is a context-thick approach which is an essential part of the paradigm shift needed by the medical community to better help people to health and wellness.

Lindhahl, Tilton, Eickholt, & Ferguson-Stegall (2016) found that a 7-week yoga intervention leads to a profoundly significant improvement in the participants' self-assessed feelings of wellness. The participants engaged in 60-minute Hatha Yoga classes

with a focus on a combination of asanas (physical postures) and pranayama (deep breathing) taught by a certified yoga teacher twice a week (Lindahl et al., 2016). Goncalves et al. (2011) found an improvement in QOL and functional autonomy over a 14-week period with a twice-weekly Hatha Yoga classes consisting of asanas, pranayama, and dharana (meditation). Halpern et al. (2014) found that 12 weeks of twice-weekly yoga classes incorporating asanas and meditation as well as daily home meditative yoga improved QOL. The yoga intervention group experienced improved QOL especially reduced fatigue, depression, anxiety, stress, tension, and anger as well as increased general well-being, vitality, and function in physical, emotional, and social roles (Halpern et al., 2014). It should be noted that the level of positive outcomes in Halpern et al.'s study was directly related to practice compliance.

Some of the positive effects on QOL may be attributable to yoga's impact on one's relationship with self and community. Kishida, Mama, Larkey, & Elavsky (2017) conducted a qualitative study to explore how yoga practice can lead to enhanced wellbeing through effects on intra- and interpersonal relationships. Yoga in this study refers to a foundation in traditional practice encompassing breathing, physical postures, meditation or mindfulness, and ethics. The study's focus on understanding the meaning of yoga to yogis and the intra- and interrelational context of the practice falls in a humanistic philosophical paradigm. Fawcett & Garity (2009) state that a study designed within a humanistic philosophical paradigm is valuable as it highlights the lived-experience and individuals' perception of reality of the experience allowing greater understanding of the meaning of the experience.

In another qualitative study that explored how yoga practice influences QOL, Kishida et al. (2017) made use of open-ended questions and in-depth interviews to reveal the stories and lived-experience of the meaning of yoga to the participants. Kishida et al. identified the following four themes from the study: states of calm, yoga as a practice that cultivates mindfulness, kindness to oneself and others, and sense of feeling connected and part of a community. The first three themes show a pattern of yoga leading to a positive intrapersonal relationship through non-reactive and compassion in oneself (Kishida et al., 2017). This positive intrapersonal relationship benefited their social interactions and therefore interpersonal relationships. The fourth theme focuses on the effect of yoga on interpersonal relations and the feeling of connectedness and community that the participants felt during their yoga practice (Kishida et al., 2017). Quotes from participants are used liberally in the article to demonstrate the origin of the themes and utilized as a vehicle to understanding the participants' viewpoint and wisdom. One such quote is, "I find that I crave the peace I find in yoga and extend it to all aspects of my life" (Kishida et al., 2017, section 3.1). The researchers were able to concentrate the wisdom and lived-experience of the participants. Yoga may improve QOL through its holistic nature.

Yoga as a Holistic Practice

Review of the literature reveals a serious lack of standard definition of yoga in scientific research. Often the focus of yoga in studies is on asanas (physical postures) with more recent studies also including pranayama (breathing) and meditation. These interventions are often the Westernized vision of yoga that had become a 16-billion-dollar industry in the United States (Walton, 2016). As a transcultural nursing project, it

is essential that a more profound understanding of yoga is achieved to honor the people, wisdom, and culture in which the tradition originated.

Western culture has effectively capitalized yoga and often views yoga in terms of asana only as there is empirical evidence that yoga can be utilized as a tool to achieve physical fitness. This watered-down version of yoga represents cultural appropriation that has little or no benefit to the indigenous peoples who first practiced yoga, thereby perpetuating power imbalance on a global scale. Yoga tradition goes well beyond the physical practice and, to honor the original culture, it is necessary to learn the history and deeper spiritual meaning of yoga. “Yoga is the activity of seeking a direct experience of the Sacred” (Vaughn, 2016, loc. 286). Ancient Yogis recognized that suffering (*duhkha*) is an immutable facet of human life and that through examining the nature of the mind and self-discipline humans can connect with the spiritual essence which is not limited by the body or the mind (Carrera, 2006).

Yoga has a rich history spanning thousands of years. Earliest archaeological evidence of yoga is from 3000 BCE found on soapstone seals originating in the Indus Valley civilization located in what is Pakistan and India today (Vaughn, 2016). The seals depict figures in yoga asanas. The first written history of yoga comes from the Vedas, a sacred text of Hinduism that reveals the Sanskrit language and date to approximately 1500 BCE (Vaughn, 2016). Yoga has changed and followed many paths over the years. The most prominent and arguably most important teachings on yoga were written in the 2nd or 3rd century called the Yoga Sutras of Patanjali (Vaughn, 2016). Patanjali’s Yoga Sutras describes the *astanga* (the eight limbs of yoga) (Bachman, 2005).

Astanga is central to understanding the tradition and purpose of yoga. The astanga are as follows: yama, niyama, asana, pranayama, pratyahara, dharana, dhyana, and samadhi (Bachman, 2005). The yama are the five restraints of nonviolence, truthfulness, nonstealing, nonexcess, and nonpossessiveness that should be practiced to live an ethical life (Adele, 2009). The niyama are the five observances of purity, contentment, self-discipline, self-study, and surrender practiced daily to facilitate inner balance (Adele, 2009). Asanas are the physical postures used for physical health and for training the body to be able to meditate, and the pranayama is the use of breath to control the flow of vital energy (Carrera, 2006). The next three astanga relate to what Western definitions would describe as meditation. Pratyahara is the withdraw of senses and pulling the attention inward to disconnect from objects, dharana is the practice of focus or concentration with the continual return of the wondering-mind to focus, and dhyana is meditation with maintenance of focus (Carrera, 2006). All the astanga are practiced with the goal of obtaining samadhi which is deep contemplation, complete absorption, or a state of union that leads to intuitive wisdom (Carrera, 2006). Table 2 describes the astanga.

Table 2	
Astanga (the eight limbs of yoga)	
yama	5 restraints: nonviolence, truthfulness, nonstealing, nonexcess, & nonpossessiveness
niyama	5 observances: purity, contentment, self-discipline, self-study, & surrender
asana	Physical postures. For physical health and for training the body to be able to meditate
pranayama	Use of breath to control the flow of vital energy
pratyahara	Withdraw of senses. Pulling the attention inward to disconnect from objects.
Dharana	Focus or concentration, the continual return of the wondering-mind to focus
dhyana	Meditation, maintenance of focus
samadhi	Contemplation, complete absorption, state of union. The ultimate goal of the above limbs that leads to intuitive wisdom.

Yoga is already widely available in the population with approximately 37 million people in the U.S. practicing today (Walton, 2016). Current yoga practice in the U.S. focuses on one small part of yoga, the asana, and misses the real potential and nature of yoga. Yoga has a deep and rich tradition that, when its history and intention are honored, has the potential to bring wellness to a vast number of people. Yoga teachings intersect with Watson’s (2008) Theory of Human Caring to establish a theoretical foundation for this project.

Transpersonal Caring

Watson (2008) places transpersonal caring relationships as a core concept in nursing theory. Embedded in the caring concept is the nurse’s ability to develop a caring

consciousness through connection with self and others as human beings, honoring wholeness of mind-body-spirit, maintaining balance, and connecting with “authentic presence” (Watson, 2012, p. 47). Watson (2008) describes how to put caring into action by stepping outside of the ego. Cowling, Smith, & Watson, (2008) describe healing as wholeness, return to essential nature, and understanding the interconnectedness of all things. Wendler’s (1996) concept analysis of healing defines healing as an energetic process that uses caring and transformative relationships to expand consciousness, achieve wholeness, integration, and balance. Healing, paradoxically, is both profoundly individual to unique human beings and indivisible from the balance found in connection with the universe. Despite the Western ideal of autonomy above all else, the idea of a human being as both an individual and an integral part of the universe is not a new idea. Yoga scholars have been passing down stories of universal connection for thousands of years.

If nurses are aware of universal oneness and act with intentionality, they can achieve a level of caring that has a vibrational energy which can positively affect health outcomes in themselves, others, and the whole of the world (Cowling et al., 2008). Butcher (2002) further describes the work of theologian Matt Fox who theorizes that compassion is born from the quest to understand “the interconnectedness of all things” (p. 10), is cosmic and energetic, and is loving others as oneself. In a “universe of deep connectedness,” even small actions of one individual human being can lead to great transformation (Butcher, 2002. P. 14). Through intentional seeking of connection, the bridge between a solipsistic individual reality to intersubjective relational lived experience can be crossed allowing for a sacred place of healing to develop.

Opening to the Spiritual and Unknown

Watson's (2008) concept of opening up to the spiritual and unknown allows room for the metaphysical. Metaphysics can be defined as a philosophy of reality outside of "objective experience" (Merriam-Webster, 2018, section1). Watson (2008) states that being open to the unknown is vital to nursing as the foundation of the discipline is "tied to humans, life, death" and "abstract notions" related to human caring requiring "deeper reflection" and 'wisdom" than can be understood utilizing empirical knowledge alone (pp. 55-56). Watson (2007) reflects that opening up to the spiritual and unknown is important because unknowns "are real to those affected" (p. 135) and allows for miracles and healing. The concept is relevant to this project because the complete benefits of yoga on the heart cannot be explained through a bio-medical lens or empirical knowledge alone.

Review of the literature shows that yoga relates to afib through primary physical outcomes, risk factor modification, and the non-physical yet context-thick outcome of QOL. Yoga is a holistic practice which intersects with Watson's (2008) Theory of Human Caring concepts of development of transpersonal caring relationships and opening up to the spiritual and unknown. Chapter 3 will describe how the quality improvement project on introducing yoga to patients diagnosed with afib was carried out.

Chapter Three: Integrating Yoga for Holistic Care

After a comprehensive review of the literature, this project started with the assumption that yoga can be beneficial for the physical health and metaphysical wellness of individuals living with the diagnosis of afib. Therefore, the project was designed to explore how yoga as an intervention can be introduced in an afib clinic setting as a quality improvement project. The project was designed to incorporate the nursing principle of holistic care using the Plan-Do-Study-Act (PDSA) model to determine the real-world feasibility of promoting yoga as an intervention. The project goals were to assess the willingness of patients to engage in yoga after a brief in-clinic introduction to the modality and to follow up with them in 12 weeks to determine if they continued the practice, discover if resources provided were helpful, and if yoga improved their subjective wellness. In addition, Chapter 3 will detail the project's conceptual model and theoretical framework.

Description of the Project

This project utilized the PDSA model (see figure 1) as it is recommended by the Institute for Healthcare Improvement (IHI) as a “powerful tool for accelerating quality improvement” (Plan-Do-Study-Act (PDSA) Cycle, 2013, para 1).

Figure 1: PDSA cycle



Used with permission. Copyright © 2009, John Wiley and Sons

PDSA is intended to test a change using the scientific method to determine if the change leads to an improvement or if further changes are necessary (Langley, 2009). The first step in the PDSA cycle is to plan. The first part of the Plan step is to develop an aim statement (PDSA: Plan-Do-Study-Act, 2019). This project aimed to utilize yoga as a holistic, integrative therapy to improve patient care for individuals living with afib and receiving treatment at the Afib Center. This project challenges the current systems lack of utilization of holistic care for afib patients as the Afib Center organization had little focus on integrative modalities. There are siloed systems of care with only a few specialized clinics offering holistic care practices. The Afib Center did not provide any holistic care practices before the implementation of the project. However, the strengths of the Afib Center organization include specialized expertise and training to provide high-level evidenced-based care, an extraordinary reputation, and superior locations to reach a substantial number of the population living with afib in central Minnesota. The final aim developed for this project is to utilize yoga as a holistic, integrative modality alongside evidence-based specialized electrophysiology medical modalities to improve

patient care for individuals living with afib and receiving treatment at the Afib Center in the Minneapolis and Fridley, MN clinic locations.

The goal of PDSA is for rapid quality improvement; therefore, the plan for this project focused on a simple and time-limited gathering of data. The project plan included giving 12 patients a brief introduction to yoga during an afib clinic appointment. As a NP working in the Afib Center, the NP holds mixed electrophysiology, general cardiology, and Afib Center clinics three days a week and participants in the PDSA QI test were chosen by being the first 2 patients with a diagnosis of afib (paroxysmal, persistent, or chronic) during the day on 6 different days during the time period of May 1, 2018 to May 15, 2018.

The plan introduced yoga in a step-wise approach. Step 1 was to briefly discuss the Yoga My Heart Study (Lakkireddy, 2013) and other evidence supporting the use of yoga for afib. During step 2, I asked patients if they were willing to practice yoga on their own. Step 3 was two-pronged: if the patient answer was no then there was no further yoga discussion. If the patient response was yes, then yoga teaching was provided with a few minutes long chair yoga sequence, as well as, providing a link to free/reduced yoga community classes in the patient's after clinic visit summary to take home with them. Step 4 was a follow-up call at 12 weeks to assess if the patient was practicing yoga greater than or equal to one day per week, practicing yoga less than one day per week, or not practicing yoga at all. In addition, I asked the patient if they felt yoga improved their subjective wellness (simple QOL measure), and if the resources were helpful.

The simple yoga sequence to be taught in the clinic setting was as follows: seated mountain pose, seated cat and cow, seated side angle, seated chest expansion, seated

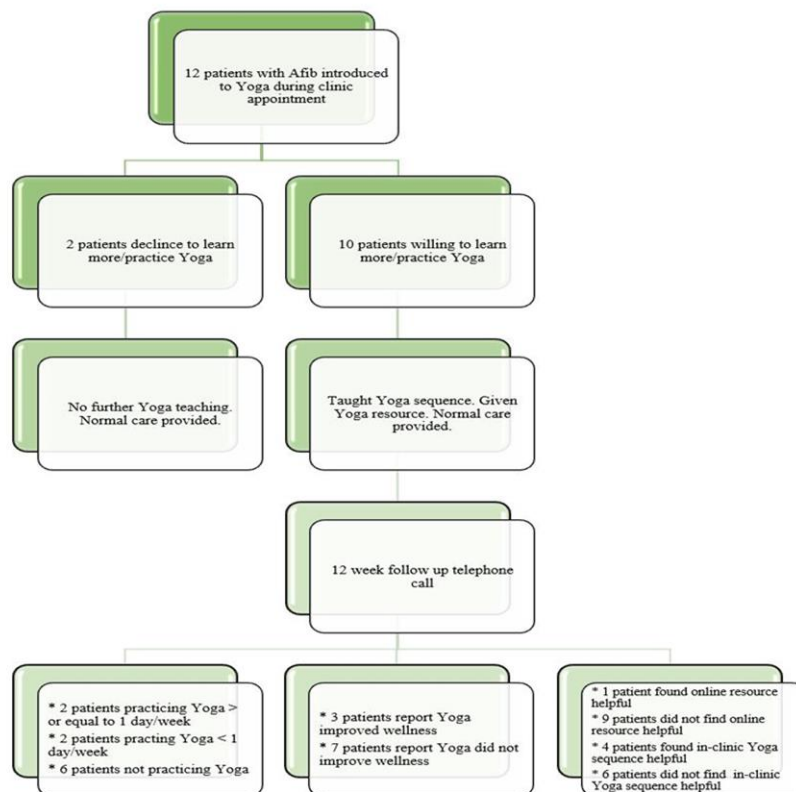
spinal twist, seated pigeon, Ujjayi pranayama, and mediation. The resource provided in the after clinic visit summary was <https://twincitiesonthecheap.com/your-guide-to-free-or-cheap-yoga-in-the-twin-cities>. During the planning phase, it was decided that the change of introducing yoga in the clinic appointment would be a quality improvement if at least 25% of patients would be practicing yoga more than or equal to one day per week.

The second step of the PDSA cycle is the Do step. During this step, the project tests the QI changes of introducing yoga during the clinic appointment and adjusts the plan as necessary for real-world enactment. The most significant change that had to be made during the Do step was to drastically shorten the simple yoga sequence to the following: seated mountain pose, seated cat and cow, seated chest expansion, Ujjayi pranayama, and meditation. The need for the shortened sequence was influenced by time constraint during the office visit. Of the 12 patients, two patients declined to learn more about yoga and 10 (83%) were willing to learn more. At the 12-week follow-up phone call to the ten patients willing to learn more, two were practicing yoga greater than or equal to one day a week, two were practicing yoga less than one day a week, and six were not practicing yoga. Four out of the original 12 (33%) were still practicing at least some yoga 3 months later. Three patients (25%) reported an improved feeling of wellness at 12 weeks. Four patients (33%) found the in-clinic seated yoga sequence was helpful yet; only one patient (8.3%) found the online resource helpful.

The third step of the PDSA cycle is the Study step. This step helps to determine if the plan and data gathered during Step 2 result in improvement, if the improvement was worth the investment, and if there were any unintended side effects (PDSA: Plan-Do-

Study-Act, 2019). The QI goal that at least 25% of participants would be practicing yoga more than or equal to one day a week was achieved. The project did lead to improvement as 4 out of the 12 patients (33%) achieved this outcome and 3 out of the 12 patients (25%) felt that they experienced an improvement in wellness. The critical limitation of time constraint during a regular clinic visit calls into question the worth of the action as an investment. There were no unintended side effects or complications from integrating yoga with standard care. Zaccagnini & White (2017) state that analysis of quality improvement data is different from and is not comparable to data of controlled research. Quality improvement data often “cannot be subjected to rigorous statistical methods” and results are more adequately represented by utilizing visual methods such as the flowchart presented in Figure 2 (Zaccagnini et al., 2017, p. 490).

Figure 2: Project Data

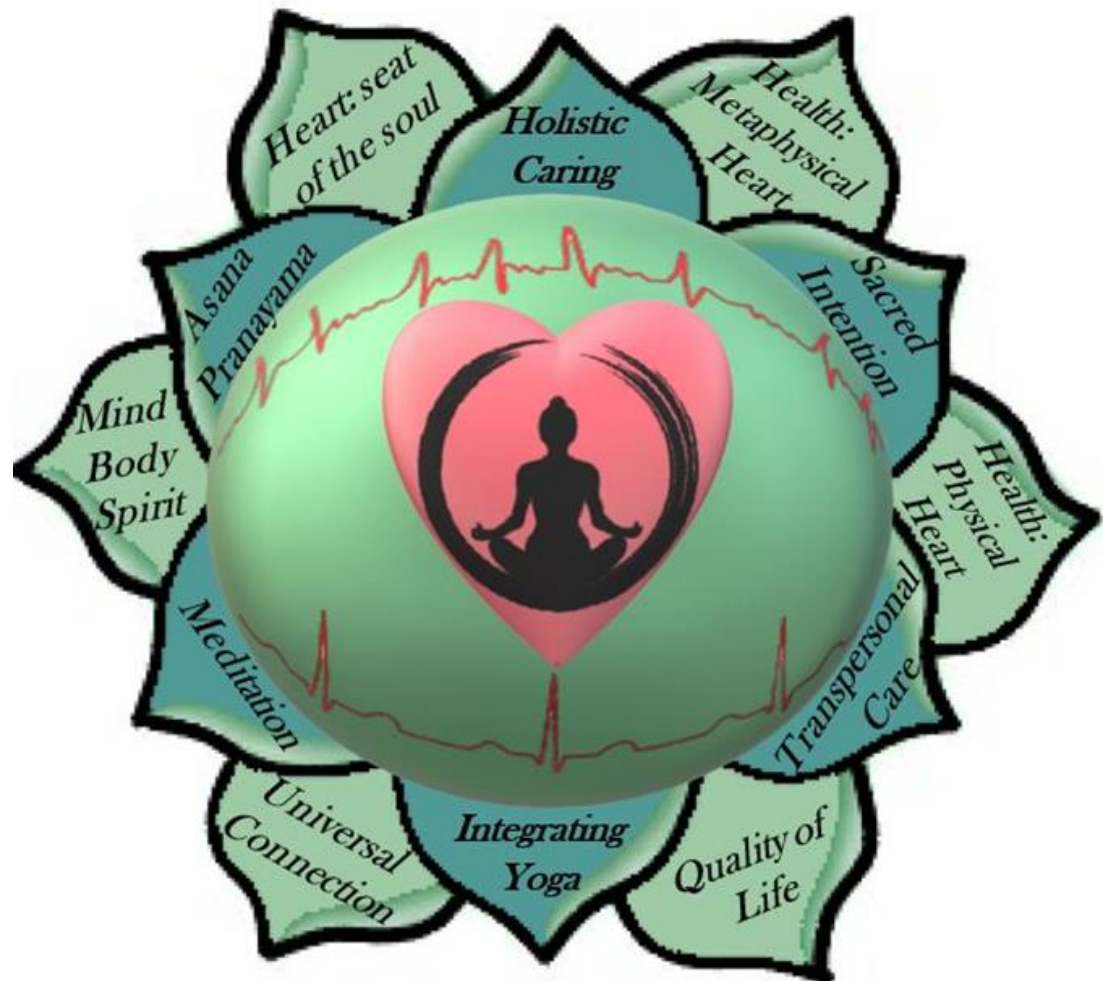


Step 4 of the PDSA cycle is the Act step. It is in this step that a reflection on the plan and outcomes are done (PDSA: Plan-Do-Study-Act, 2019). Here it is decided if the plan will be adopted, adapted, or abandoned. If the plan led to QI and was worth the investment, then the plan can be adopted and integrated into regular practice. If the plan led to partial success or revealed areas where a different approach may be more successful, the plan might be adapted. The plan may also be abandoned if it is not successful or if unintended adverse outcomes are revealed. This project revealed that it is difficult to incorporate yoga teaching into a clinic visit due to time constraints, yet yoga can be beneficial. To preserve the positive outcomes and further QI an adaptation of the plan and further cycling of the PDSA will be done in the future. Plans for continued integration of yoga for holistic care of patients living with afib will be done through a brief introduction during the clinic appointment combined with the development of an Introduction to Yoga for Heart Health group class offering. A conceptual model for the project and the application to Watson's (2012) theory will be discussed.

Theoretical Framework and Conceptual Model

A conceptual model based on the theoretical framework of the project was designed to act as a visual representation of the concepts central to the project. The conceptual model is presented in Figure 3.

Figure 3: Yoga for holistic care, the unfolding lotus



The conceptual model embodies an unfolding lotus, with the practice of yoga central in the heart. The use of the lotus as the basis of the conceptual model honors the Hindu religion where yoga shares its roots. According to Dallapiccola (2002), in the Hindu religion, the unfolding lotus flower symbolizes reaching a deeper state of mind and achieving spiritual enlightenment. A basic premise of Watson’s (2012) Theory of Human Caring is that nursing, at its highest-level, forms relationships that transcend the physical world and connect with other’s “inner condition/self” to achieve a higher level

of consciousness and spirituality (p. 76). The conceptual model color is significant for its green coloring which reflects the color of the 4th chakra, the heart chakra. Chakra is a Sanskrit word for the 7 “vortexes” of vital life-force (prana) that connect mind, body, spirit, and the universe which exist inside of the core of each human (Judith, 2003, p. 2). In yoga tradition, a heart chakra in balance is believed to be expressed through the characteristics of “love, caring, compassion, empathy, acceptance, self-love, peacefulness, and contentment” (Judith, 2003, p. 43). Meanwhile, a heart chakra out of balance is believed to lead to physical ailments of the heart and lung such as heart arrhythmias including afib. Watson (2012) challenges nurses to consider love as the highest level of consciousness, and that love and care are necessary to connect to the “universal life source” so that wellness can be achieved even in the presence of physical illness (p. 63). The center of the conceptual model is completed by two heart rhythms which are afib on the top, and normal sinus rhythm on the bottom meant to represent the idea that wellness can be attained independently of the physical rhythm present.

The six inner petals of the unfolding lotus on the conceptual model represent the six actions of the project. The six actions are as follows: holistic caring, sacred intention, transpersonal care, integrating yoga, meditation, and asana and pranayama. The first action that is illustrated on the unfolding lotus is holistic caring. Potter & Frisch (2016) define holistic caring in nursing as a process of assessment, diagnosis, developing a care plan, implementation, and evaluation which includes “less tangible” actions such as “presence, hope, caring, and mutuality” (p.168). This holistic caring process closely aligns with PDSA cycle utilized for this project with the addition of the less tangible elements deliberately saturating every aspect of the project for both patients who wished

to learn about yoga as well as for those who did not want to learn more about yoga.

Respect and intentional caring while allowing others to determine their meaning and honoring the mutuality of the relationship is an essential foundational factor of Watson's (2012) concept of developing a transpersonal caring relationship.

Following the inner petals of the conceptual model clockwise, the next action illustrated is that of sacred intention. Sacred is beyond the limits of any one religion or language. Burkhardt & Nagai-Jacobson (2016) define the sacred as "a power that is greater than us, and that is within, among, and yet beyond us" (p138). Sri Swami Satchidananda's (2017) translation of the ancient Yoga Sutras in pada (teaching) 1.23-1.26 refers to the sacred as Isvara (Ishwara, gods, God), the "supreme consciousness", "cosmic knowledge", and the infinite of which all is connected "found through surrender and transcendence of ego" (p. 39). Reverend Carrera (2006) states that the sacred Ishwara portrayed in the Yoga Sutras is not separate from the self. Watson (2012) notes that the higher-self transcends time and space with "humankind's destiny" to become more god-like (sacred) (p. 63). Intention is defined as "a determination to act in a certain way" and "a manner of healing" (Merriam-Webster intention, 2018). The NP, acting as healing nurse, entered every interaction in the project with the following sacred intention: *I am Ishwara (god), you are Ishwara (god), we are all Ishwara (god) together. I will respect, love, connect, and listen to you.*

The third action illustrated on the inner petals of the conceptual model is the concept of transpersonal care. This concept is in direct reference to Watson's concept of developing a transpersonal caring relationship. The concept is simultaneously simple and complex. Simple as relationship formation is the foundation of nursing. Complex as

transpersonal care goes beyond surface level connection and small-talk to an interaction of spirit energy (perhaps prana) and connecting with each other and “a universal source for healing and renewal” (Watson, 2012, p. 75). This type of connection requires both giving and receiving while accepting the sacred (Burkhardt et al., 2016). The intersection between nursing theory and Yoga Sutras can be found when exploring the concept of connection taught in pada 4.5. This teaching is that “although the activities of the individualized minds may differ, one consciousness is the initiator of them all” (Carrera, 2006, p. 207). In this way, the nurse can see the eyes of the Other are their own. When the ego is set aside, it is revealed that we are all parts of a more significant and connected whole which can be utilized with intention by a nurse to create a transpersonal healing relationship allowing for healing and wellness to take place.

The fourth action illustrated is that of integrating yoga. The concept of integrating yoga means that it is of vital importance to utilize evidence-based medical modalities in the treatment plan. Leaving room for integrative modalities such as yoga can put the patient at the center of the plan, as seen in the conceptual model. Yoga should not be used as an alternative to conventional medicine as there little to no evidence to show that it would be effective to treat afib alone. Integration is based on the NP and the patient in the project partnering in the healing process with the decision to pursue yoga as a modality agreed upon by both parties. The NP has done extensive learning about yoga to know that it may be used to facilitate the body’s innate healing powers, is noninvasive, low risk, and may foster healthy behaviors and coping skills.

The final two petals of the inner lotus petals of the conceptual model incorporate the three central practices in yoga of meditation, asana, and pranayama (Carrera, 2006).

Asanas are the physical postures commonly associated with yoga. Pranayama is the use of breathing techniques, such as Ujjayi which was taught to patients who wished to learn about yoga in this project, to control the flow of vital energy (prana) in the body. Asana and pranayama are used in yoga to prepare the mind and body for meditation (Carrera, 2006). Meditation is a powerful practice in yoga with the goal being to attain a state of consciousness in the present moment where the person practicing fathoms their true self and connects with the universe (Carrera, 2006).

The six outer petals of the unfolding lotus of the conceptual model illustrate the following six outcomes associated with this project: health: metaphysical heart, health: physical heart, quality of life, universal connection, mind-body-spirit, and heart: seat of the soul. The first petal of the outer petals is the health of the metaphysical heart. The heart as the metaphysical center of the spirit and an enduring symbol of love and compassion was explored in Chapter 2 and aligns with the second concept of Watson's (2012) Theory of Human Caring used as a foundational framework. The concept, opening up to the spiritual and unknown, is applied in this project through the metaphysical wisdom that all humans need love and caring to prosper and attain wellness. Watson (2012) states that nursing is inherently rooted in the metaphysical as it is "impossible to limit ideas" to the strictly "physical-materialistic view of life" as the discipline of nursing is at its heart "tied to life, death, spirit, and human relationships" (p. 55).

Following the outer petals clockwise, the second outcome illustrated is the health of the physical heart. The review of the literature showed the objective physical benefits that yoga might provide for the health of the physical heart. Some of the physical benefits

discussed were reduced episodes of afib in participants with paroxysmal afib, reduced systolic blood pressure and heart rate, decreased intima-media thickness and oxygen consumption, as well as, a decreased risk of tachy-mediated heart failure (Lakkireddy et al., 2013; Manchanda et al., 2013; Roche et al., 2017; Tyagi & Cohen, 2014; Wahlstrom et al., 2017). It is important to note that the literature reviewed utilized standard guideline-directed medical treatments with yoga as an integrative therapy versus standard therapy alone.

The next outer petal illustrates QOL which is a comprehensive concept that takes into consideration subjective endpoints such as this project's endpoint of perceived wellness. Such softer outcomes must be included along with objective measures when the holistic nurse is attempting to grasp the nature of a phenomenon. The following outer lotus petal illustrates the concept of universal connection. Watson's (2012) concept of opening to the spiritual and unknown intersects with yoga's traditional purpose of connecting with universal energy, infinite consciousness, or Ishwara to find our true self. Watson (2012) defines human beings "as evolving, experiencing spiritual beings" (p. 22). Humans are inseparable from the greater universe. The butterfly effect is a theory in physics that, in a world of deep connection, even small seemingly insignificant changes such as the flapping of butterfly wings can lead to substantial changes such as a tornado (Boeing, 2016). Imagine the difference that nurses can make with acts of transpersonal caring and love.

The fifth outer petal of the unfolding lotus conceptual model illustrates the mind-body-spirit. Mind-body-spirit is a concept in holistic nursing that mind, body, and spirit together compose a highly integrative system of a unified whole (Burkhardt et al., 2016).

Through dynamic and robust feedback systems, factors that influence a part of the system have effects on the whole person. Watson (2012) postulates in the Theory of Human Caring that a person is a “spiritual being living a human existence” (p. 58) and should be thought of in terms of unity of mind-body-spirit. Yoga tradition utilizes the oneness of mind-body-spirit through asana, pranayama, and meditation finally engaging the spirit with attempts to obtain samadhi, universal connection and knowing of the true self/spirit (Carrera, 2006). Wellness can be experienced even in the presence of disease through the synergy of mind-body-spirit.

The sixth outcome represented by an outer petal in the conceptual model is an acknowledgement that, for thousands of years, the heart as the seat of the soul has been taught in a wide variety of cultures from ancient Egypt and Greece to teachings of the Vedas (Lykouras et al., 2010). The heart as the seat of the soul is a useful metaphor for the holistic nurse to explain why diseases of the heart and physical body cannot be treated completely utilizing a biomedical lens alone. Holistic, integrative modalities consider the totality of a person to achieve optimal wellness drive the future of nursing.

Yoga as an intervention can be introduced in a clinic setting as a quality improvement project. The project used the Plan-Do-Study-Act (PDSA) model as recommended by the IHI for QI. The project introduced 12 patients with a diagnosis of afib and no prior yoga practice to yoga as an integrative modality resulting in 33% practicing yoga and 25% stating that yoga leads to wellness. The Unfolding lotus conceptual model for the project illustrates the actions and outcomes of the project and how they link to Watson’s (2012) concepts. Next, Chapter 4 will describe the evaluation process of the project, personal reflections, and insights gained.

Chapter Four: Evaluation

This project aimed at reducing the quality gap in real-world utilization of yoga by examination of methods to disseminate the NPs knowledge to afib patients in a clinical setting using the PDSA model. Chapter 4 will describe the approach used to evaluate the project. Evaluation is necessary to identify what works, areas that need improvement, and what does not work so that the quality improvement goals can be met. This chapter will also provide a personal reflection on the project and how the project advances nursing practice.

Evaluation Process

Evaluation of the project, which was a small-scale quality improvement project, is imbedded in the third and fourth phases of the Plan-Do-Study-Act cycle. An evaluation of data collected in the Do cycle is done to see if the PDSA project has “actually realized improvement in practice or patient care” (Harvey & Wensing, 2003, p. 211). The Agency for Healthcare Research and Quality (AHRQ) of the U.S. Department of Health and Human Services describes PDSA as a segment or single step of change, short duration, and small sample size. Furthermore, AHRQ (2015) states that the evaluation of the PDSA should answer the following questions: “What did you observe?; Did everything go as planned or was modification needed?; Did you meet the measurement goal?; What did you learn from this cycle?” (section 2).

What did you observe?

Mertens (2009) states that observation is “essential to transformative work” (p. 241). Observations made by me included two patients very quickly saying no when asked if they were willing to learn more about yoga. Both of those patients showed signs

of relief through sigh, slight smile, and/or loss of tension around the eyes when I accepted their negative response with a smile and simple statement of “I understand” and moved on by asking what concerns they would like to address that day. Observations made from the patients who chose to learn more about yoga was smiling throughout, laughter from a few when learning ujjayi breathing, and three patients asking if they could have a hug at the end of their clinic appointment. Comments made during the appointment and written down by me just after the initial clinic appointment include: “that wasn’t as hard as I thought it would be”, “it’s so nice to have a doctor (sic) that cares”, “you should teach a yoga class”, “I would go to a class if you taught one somewhere”, and “is it okay if I bring my daughter to my next appointment so she can learn too?” These comments planted the seed for a future PDSA cycle which will be described in Chapter 5. In self-reflection, I observed how integrating yoga and applying Watson’s (2008) concept of transpersonal caring had a profound effect on how engaged I felt as a healer during the interaction. I also observed that follow up telephone calls and the survey may have helped to determine if the goal was reached but felt rushed, impersonal, and inadequate after the formation of the transpersonal caring relationship that occurred during the face-to-face appointment.

Did everything go as planned or was modification needed?

Modification of the plan was needed as time constraints of a clinic visit did not allow for teaching the yoga sequence as planned. The simple yoga sequence planned was as follows:

1. Seated Mountain Pose
2. Seated Cat and Cow Pose

3. Seated Side Angle
4. Seated Chest Expansion
5. Seated Spinal Twist
6. Seated Pigeon
7. Ujjayi Pranayama

The decision to modify the plan was made during the instruction of the first patient due to time constraint and then followed with each subsequent patient so that all ten patients received the same sequence. The simple yoga sequence utilized was as follows:

1. Seated Mountain Pose
2. Seated Cat and Cow Poses
3. Seated Chest Expansion
4. Ujjayi Pranayama

Each asana (pose) was held for 8 to 10 breaths with guidance and verbal correction cues given. Ujjayi Pranayama was taught, and I engaged in a brief meditation with each patient using the breathing technique. The modification was necessary and led to a future PDSA cycle plan which will be discussed further in Chapter 5.

Did you meet the measurement goal?

The review of the literature showed that yoga can be beneficial when used as an integrative modality for afib yet, there was a gap in the literature that was identified after the review. The gap is that there is little information on how to effectively educate cardiac patients about yoga and incorporate that information into their treatment plan in real-world scenarios. To provide information to help close the gap, and promote quality improvement, the project is one PDSA cycle in which a yoga sequence was taught during

a clinic appointment and a link to free yoga in the community was provided. During the planning phase, it was decided that the change of introducing yoga to patients during the clinic appointment would be considered a quality improvement if at least 25% of patients would be practicing yoga more than or equal to one day per week and feel that it improved their subjective wellness. Simple observations of patient reactions and follow up survey was used to collect data. The observations revealed that the interaction was positive and has led to all 12 patients continuing to follow up with me as their provider to date (seven months later at the time of writing). The follow-up telephone survey revealed that 12 weeks later, 33% of participants were practicing yoga and that 25% felt that yoga leads to wellness. In this way, the PDSA cycle met the measurement goal.

What did you learn from this cycle?

The project taught me that the time constraints and expectations of a clinic appointment common in our healthcare system should not be underestimated as a barrier to care. I also learned that in a very short amount of time a caring relationship could be developed between an NP and a patient by utilizing Watson's (2012) concept of developing a transpersonal caring relationship and the concept of opening up to the spiritual and unknown. Yoga as an integrative modality can be used by the nurse to deepen the relationship and create a sacred space in which healing can occur. For example, one patient who participated in the project found the yoga practice profoundly healing, as well as, the depth of trust she had in our relationship allowed her to seek evidence-based treatment for afib with electrical cardioversion that she had feared and avoided at all cost before our clinic visit. I was able to schedule her for outpatient cardioversion and perform the cardioversion under general anesthesia on her with

success. After I had completed her informed consent and as we waited in the lab for anesthesia to arrive, we held hands and engaged in pranayama together. The practice calmed her nerves, and I could feel the energy in the room settle gently around us. It was a sacred experience for me to act as a healer and partner in her care. She awoke with no memory of the actual cardioversion, in normal rhythm, and expressed many times that she was so thankful. My practice continues to include a recommendation of yoga as a modality for patients living with a diagnosis of afib. I learned that due to time constraints during a clinic visit, I would like to adapt the plan and perform another PDSA cycle looking at offering a 45-minute yoga for Heart Health class to all our patients at the Afib Center.

How the Project Advances Nursing Practice

This project advances nursing practice by demonstrating how an NP can immerse him/herself in learning more about an integrative modality, such as engaging in RYT training and yoga, discovering the intersection of the modality and nursing theory, and then bring information about that modality to the patients they work with thereby promoting wellness. By integrating holistic modalities into treatment, the true essence of the nursing profession arises. Nursing is the metaphysical heart of healthcare. Nurses are more than just worker bees performing tasks. They are the hands that heal and help with a person's transition from illness to wellness. Nurses, utilizing knowledge gained from evidence-based sources and grounded in nursing theory, can lead the necessary change of healthcare into a functional institution with a focus on holistic health, community, and preventative medicine. Nurses must become an authentic voice of reason. Nursing theory and an understanding of holistic practices such as yoga can provide us with a lens to focus our healing intentions.

Also, this project advanced nursing practice by showing how an NP can identify a gap in the literature and design a PDSA cycle for rapid quality improvement in response to that gap. The literature review revealed that yoga can be beneficial when used as an integrative modality for patients who are living with afib in a research setting yet, there was a gap in the literature about how to best incorporate the recommendation for yoga to patients in a real-world environment. This project addresses that gap by examining ways of recommending and teaching yoga to patients in a real-world clinic setting to improve quality of care and holistic caring. The project utilized discussion about yoga, teaching a short yoga sequence in-clinic, and providing a link to an online resource for free and reduced yoga available in the community.

Personal Reflection and Insights

My personal reflection and insights will include an examination on the authenticity of the project, how the participants and I understand ourselves differently through the project, and the transformative idea of the project. Mertens (2009) describes the criteria to judge authenticity in the evaluation to include both ontological authenticity and catalytic authenticity. Ontology is the study of metaphysics and being. Mertens (2009) states that ontological authenticity “refers to the degree to which the individual’s or group’s conscious experience of the world became more informed or sophisticated as a result of the...experience” (p. 39). Before starting this project, I had often thought in more linear pathways and functioned in Western medicine capacity with a focus on pharmaceutical and procedural modalities. My project meets the criteria of ontological authenticity as I, as a healer, have a deepened understanding of sacred intention and the power of transpersonal caring relationships. I witnessed patients develop trust towards me as their healthcare provider and a willingness to try something new, such as yoga, or something that they had

feared in the past, such as cardioversion, to bring improved wellness into their lives. The patients I work with and I have entered a partnership with each other and were both changed. Mertens (2009) describes catalytic authenticity as “the extent to which action is stimulated by the inquiry process” (p. 39). Catalytic authenticity could also be thought of as the extent that participants feel empowered to act. This project empowered me to incorporate holistic caring into my medical practice and has inspired me to design and work towards offering a class dedicated to yoga for heart health. This project also allowed the patients to feel safe trying an integrative modality to improve QOL and wellness.

The transformative idea of this project is that health care needs to be about more than just disease processes and profit for pharmaceutical and supply companies. The nation’s health care system is in desperate need of holistic and preventive modalities that can be utilized effectively through transformative relationships to heal our communities. Nurses have the numbers and the heart to lead if we band together. I believe that the universal interconnectedness of people, living creatures, and the physical space in which a person lives are core determinates of health. Nursing theory and yoga tradition acknowledge this deeper connection between people and the universe. Nursing theory elevates concepts such as caring, compassion, relationships, and community to a level of importance equal to or greater than medical diagnosis and treatment in the overall wellness of people.

Evaluation of my project was done through the AHRQ recommended evaluation process for PDSA to identify what works (transpersonal caring, being open to the unknown, teaching yoga sequences, recommending yoga practice) and areas that need improvement (more time for dedicated yoga instruction). The project advances nursing practice, addresses a gap in the literature regarding real-world application of yoga as an integrative modality, and is transformative through its holistic approach to healthcare.

Next, a discussion about the Doctor of Nursing Practice (DNP) essentials, the future expansion of the project, and areas of potential future research will be addressed.

Chapter Five: Conclusions

Afib is a chronic disease of the heart without a reliable medical cure. Yoga is a holistic, integrative modality that can be practiced by people living with afib to improve QOL and achieve positive outcomes. Nurses can utilize yoga and Watson's (2012) caring concepts to facilitate wellness independent of bio-medical cure. This project used a PDSA cycle as quality improvement project to evaluate ways to incorporate yoga into care in the real-world. Chapter 5 will discuss how this project addresses DNP essentials, describes future plans for the project, and calls for future research.

Doctor of Nursing Practice Essentials

This project specifically addresses the American Association of Colleges of Nursing (AACN) DNP Essentials II and VII. AACN (2006) describes DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking as the DNP being able to “develop and evaluate care delivery approaches” (p. 10), “ensure accountability of quality health care” (p. 10), and “analyze the cost-effectiveness of practice initiatives” (p. 11). My project addressed Essential II through thoughtful analysis of how to best integrate yoga into the care of patients living with afib. Afib is a costly chronic disease. In fact, Medicare costs associated with afib related stroke alone in the United States are \$2.6 billion in the first year after stroke (Reynolds & Essebag, 2012). This amount does not even include the cost of other afib related sequela of heart failure or dementia or the cost of treating afib alone. Besides the monetary costs of afib, there can also be a substantial burden to people's QOL. The literature review of evidence and this project demonstrated that yoga may be beneficial. Unfortunately, this project found that it is time-consuming to introduce yoga with any real depth of purpose

during a 30-minute clinic appointment that must include evidence-based medical modalities and treatment plan. Yoga will continue to be recommended during the clinic visit. An adaptation to the PDSA has been made to try an alternate way of bringing yoga to all heart patients at the organization and will be addressed in detail in the following section.

AACN (2006) describes DNP Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health as the DNP being able to "analyze epidemiological data" in order to utilize modalities of care that include consideration of determinants of health including "health promotion/disease prevention, psychosocial dimensions", and "cultural and socioeconomic" (p.16). Currently, an estimated 9% of people 65 years or older are living with afib in the US (CDC, 2017). As the US population ages, this number is projected to increase rapidly. According to the CDC (2017), individuals in the US who are diagnosed with afib spend approximately \$8,705 more each year than someone without afib. Yet, afib has no reliable cure and medical modalities focus on episode reduction, symptom management, heart rate control, and stroke prophylaxis. Yoga is beneficial for health promotion when used as an integrative modality in the treatment of afib by reducing afib burden, heart rate, patient symptoms, systolic blood pressure, heart rate, anxiety, and depression, as well as, improve QOL scores (Lakkireddy et al., 2013; Wahlstrom, Karlsson, Medin, & Frykman, 2017). Yoga addresses the psychosocial and cultural dimensions through positive effects on one's relationship with self and community. Yoga practice can lead to enhanced wellbeing through effects on intra- and interpersonal relationships (Kishida et al., 2017). This

project also strived to address the socioeconomic determinate of health by providing resources to free and reduced-cost yoga in the community.

Future Expansion and Sustainability

Since yoga is beneficial when used as an integrative modality for patients living with afib in both the literature and in this project, further cycling of PDSA will be done to continue to explore ways to bring yoga to greater numbers of people with more depth of teachings. Future expansion of my project includes continuing to recommend yoga during the clinic visit, provide a link to free and reduced yoga in the community as well as hold a separate Introduction to Yoga for Heart Health group class for all heart patients and their families. I will begin teaching the class once I obtain my RYT certification. Mertens (2009) states that for a project to be sustainable, it is necessary to build alliances within the organization, have community support, and consider how the project will be funded (p. 348). To build alliances within the organization, I am presenting on this project at staff meetings, sharing the literature evidence on yoga for heart health, and will be offering free yoga classes to staff to encourage their engagement. To develop community support, I have done service teaching in the community, and I plan to offer the Introduction to Yoga for Heart Health class for free for first-time attendees. To sustain the class long-term, a small fee will be collected from attendees so that it is not cost-prohibitive yet will allow for continued class offerings. This project also calls for future research and quality improvement projects to help quantify the type of yoga practice, interval, and duration of practice needed for the most favorable impact on heart health.

Afib is a chronic disease that is growing in incidence and prevalence and has a devastating impact on the people that it affects. Afib has no reliable cure and nurses can utilize holistic, integrative modalities such as yoga to facilitate wellness. My project was a quality improvement project using a PDSA cycle to look at how to best recommend yoga to patients living with afib to improve their QOL. My project found that yoga can be beneficial yet is challenging to teach during a typical clinic appointment due to time constraints. Future expansion of my project includes continuing to recommend yoga during the clinic appointment, as well as, the design and implementation of a 45-minute Introduction to Yoga for Heart Health class to allow more time to teach the modality. Yoga tradition and Watson's (2012) concepts of transpersonal caring and being open to the unknown intersect at the idea of connection. A culture that values autonomy above all other principles can lead to a solipsistic view of reality, disconnection, and disharmony. Although autonomy is important, it is not the only moral principle, and the widening disconnect between individuals and the universe can lead to illness. Humans are inseparable from the greater universe. To heal the health of the nation, it is necessary that healthcare, led by nurses, change to include holistic, integrative modalities to reestablish a sense of connection between mind-body-spirit, people, communities, and the universe as a whole.

References

- About the clinics and surgery center. (2016). Retrieved from <https://www.mhealth.org/locations/buildings/clinics-and-surgery-center#jump-link-free-text-2>
- Adele, D. (2009). *The yamas and niyamas: Exploring yoga's ethical practice*. Duluth, Minnesota: On-Word Bound Books LLC.
- AHNA. (2018). *What is holistic nursing*. Retrieved from <http://www.ahna.org/About-Us/What-is-Holistic-Nursing>
- AHRQ. (2015). *Plan-Do-Study-Act (PDSA) directions and examples*. Retrieved from <https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthlittoolkit2-tool2b.html>
- Alexander, M. (2007). The Butterfly Effect. *New England Review*, 28(3), 32-32. Retrieved from <http://www.jstor.org/stable/40244981>
- American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Retrieved from <https://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf>
- American Psychiatric Association practice guideline for the treatment of patients with major depressive disorder, third edition. (2015). Retrieved from <https://www.guideline.gov/content.aspx?id=24158>
- Bachman, N., (2005). *The language of yoga: A complete A to Y guide to asana names, Sanskrit terms, and chants*. Boulder, Colorado: Sounds True, Inc.
- Benvenuti, M., Silva Alves, E., Michael, S., Ding, D., Stamatakis, E., & Edwards, K. (2017). A single session of hatha yoga improves stress reactivity and recovery

after an acute psychological stress task-A counterbalanced, randomized-crossover trial in healthy individuals. *Complementary Therapies in Medicine*, 35, 120-126.

[https://doi.org/10.1016.j.ctim.2017.10.009](https://doi.org/10.1016/j.ctim.2017.10.009)

Berry, T. (1999). *The great work: Our way into the future*. New York: Three Rivers Press.

Boeing, G. (2016, November 13). Visual analysis of nonlinear dynamical systems:

Chaos, fractals, self-similarity and the limits of prediction. *Systems*, 4(4).

<https://doi.org/10.3390/systems4040037>

Burkhardt, M. & Nagai-Jacobson, M. (2016). Spirituality and health. In B. Dossey & L. Keegan (Eds.), *Holistic nursing: A handbook for practice* (7th ed. (pp. 135-163). Burlington, MA: Jones & Bartlett Learning.

Butcher, H. (2002). Living in the heart of helicy: An inquiry into the meaning of compassion and unpredictability within Roger's nursing science. *Visions: The Journal of Rogerian Nursing Science*, 10(1), 6-22. Retrieved from

https://moodle.augsburg.edu/moodle2016/pluginfile.php/249828/mod_resource/content/1/NUR%20803%20Living_in_the_Heart_of_Helicy_Butcher.pdf

Carrera, J. (2006). *Inside the Yoga Sutras: A comprehensive sourcebook for the study and practice of Patanjali's Yoga Sutras*. United States of America: Integral Yoga Publications.

CDC. (2017). *Atrial fibrillation fact sheet*. Retrieved from

https://www.cdc.gov/dhdspl/data_statistics/fact_sheets/fs_atrial_fibrillation.htm

CDC. (2016). *Health-related quality of life*. Retrieved from

<https://www.cdc.gov/hrQOL/concept.htm>

- Colilla, S., Crow, A., Petkun, W., Singer, D. E., Simon, T., & Liu, X. (2013, Oct 15). Estimates of current and future incidence and prevalence of atrial fibrillation in the U.S. adult population. *American Journal of Cardiology*, *112*(8), 1142-1147. <http://dx.doi.org/10.1016/j.amjcard.2013.05.063>
- Cowling, W., Smith, M., & Watson, J. (2008). The power of wholeness, consciousness, and caring a dialogue on nursing science, art, and healing. *Advances in Nursing Science*, *31*(1), E41-E51. Retrieved from https://moodle.augsburg.edu/moodle2016/pluginfile.php/249810/mod_resource/content/1/NUR%20803%20The_Power_of_Wholeness_consciousness_and_caring_Cowling_Smith_Watson%20%281%29.pdf
- Dallapiccola, A. (2002). *Dictionary of Hindu lore and legend* (Kindle ed.). New York: Thanes & Hudson.
- Fawcett, J., & Garity, J. (2009). *Evaluating research for evidence-based nursing practice*. Retrieved from <https://moodle.augsburg.edu/moodle2017/mod/folder/view.php?id=78051>
- Goncalves, L., Vale, R., Fontes Barata, N., Varejao, R., & Dantas, E. (2011). Flexibility, functional autonomy, and quality of life (QOL in elderly yoga practitioners). *Archives of Gerontology and Geriatrics*, 158-162. <https://doi.org/10.1016/j.archger.2010.10.028>
- Halpern, J., Cohen, M., Kennedy, G., Reece, J., Cahan, C., & Baharav, A. (2014, May/June). Yoga for improving sleep quality and quality of life for older adults. *Alternative Therapies*, *20*(3), 37-46. Retrieved from

<http://web.b.ebscohost.com.ezproxy.augsburg.edu/ehost/pdfviewer/pdfviewer?vid=1&sid=1b493394-c827-47c8-a01f-f56d66ff3174%40sessionmgr120>

Harvey, G., & Wensing, M. (2003). Methods for evaluation of small-scale quality improvement projects. *Quality Improvement Research*, 12, 210-214.

<http://dx.doi.org/10.1136/qhc.12.3.210>

Hegel, G., & Miller, A. (1977). *Understanding: Appearance and the supersensible world: Phenomenology of spirit* (5th ed.). New York: Oxford University Press.

HRS. (2017). *Atrial Fibrillation (afib)*. Retrieved from www.hrsonline.org

Judith, A. (2003). *Chakra balancing*. Boulder, CO: Sounds True.

Kishida, M., Mama, S., Larkey, L., & Elavsky, S. (2017). “Yoga resets my inner peace barometer”: A qualitative study illuminating the pathway of how yoga impacts one’s relationship to oneself and to others. *Complementary Therapies in Medicine*. <https://doi.org/10.1016/j.ctim.2017.10.002>

Kjaer, T., Bertelsen, C., Piccini, P., Brooks, D., Alving, J., & Lou, H. (2002). Increased dopamine tone during meditation-induced change of consciousness. *Cognitive Brain Research*, 13, 255-259. Retrieved from https://ac-els-cdn-com.ezproxy.augsburg.edu/S0926641001001069/1-s2.0-S0926641001001069-main.pdf?_tid=33167656-d8ea-4e4a-b837-20f6287c9488&acdnat=1522856757_fc4e658e33a68e7d793c57d31de40f1d

Lakkireddy, D., Atkins, D., Pillarisetti, J., Ryschon, K., Bommana, S., Drisko, J., & Vanga, S. (2013). Effect of yoga on arrhythmia burden, anxiety, depression, and quality of life in paroxysmal atrial fibrillation. *Journal of the American College of Cardiology*, 61(11), 1177-1182. <https://doi.org/10.1016/j.jacc.2012.11.060>

- Lampert, R., Jamner, L., Burg, M., Dziura, J., Brandt, C., Liu, H., ... Soufer, R. (2014, October 7). Triggering of symptomatic atrial fibrillation by negative emotion. *Journal of the American College of Cardiology*, *64*(14), 1533-1536.
<https://doi.org/DOI: 10.1016/j.jacc.2014.07.959>
- Lane, D., Skjoth, F., Lip, G., Larsen, T., & Kotecha, D. (2017, April 28). Temporal trends in incidence, prevalence, and mortality of atrial fibrillation in primary care. *Journal of the American Heart Association*, *6*.
<http://dx.doi.org/10.1161/JAHA.116.005155>
- Langley, G., Moen, R., Nolan, K., Nolan, T., Norman, C., & Provost, L. (2009). *The improvement guide: A practical approach to enhancing organizational performance* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Lindahl, E., Tilton, K., Eickholt, N., & Ferguson-Stegall, L. (2016). Yoga reduces perceived stress and exhaustion levels in healthy elderly individuals. *Complementary Therapies in Clinical Practice*, *24*, 50-56.
<https://doi.org/10.1016/j.ctcp.2017.05.007>
- Lykouras, E., Poulakou-Rebelakou, E., & Ploumpidis, D. (2010, Dec). Searching the seat of the soul in Ancient Greek and Byzantine medical literature. *Acta Cardiologica*, *65*(6), 619-626. <https://doi.org/10.2143/AC.65.6.2059857>
- Mehrotra, R. (2016, Oct 20). Yoga and the heart. *Journal of Clinical and Preventive Cardiology*, *5*(4), 138-142. <https://doi.org/10.4103/2250-3528.192697>
- Mertens D. (2009). *Transformative research and evaluation*. New York: The Guilford Press.

- Manchanda S., Mehrotra U., Makhija A., Mohanty A., Dhawan S., Sawhney J. (2013). Reversal of early atherosclerosis in metabolic syndrome by yoga: A randomized controlled trial. *Journal of Yoga & Physical Therapy*, 3(132). <https://doi.org/10.4172/2157-7595.1000132>
- Merriam-Webster. (2018). *Intention*. Retrieved from <https://www.merriam-webster.com/dictionary/intention>
- Merriam-Webster. (2018). *Metaphysics*. Retrieved from: <https://www.merriam-webster.com/dictionary/metaphysics>
- Newberg, A., Wintering, N., Waldman, M., Amen, D., Khalsa, D., & Alavi, A. (2010, December). Cerebral blood flow differences between long-term meditators and non-meditators. *Consciousness and Cognition*, 19(4), 899-905. <https://doi.org/10.1016/j.concog.2010.05.003>
- Patel, D., McConkey, N., Sohaney, R., McNeil, A., Jedrzejczyk, A., & Armaganijan, L. (2013). A systematic review of depression and anxiety in patients with atrial fibrillation: The mind-heart link. *Cardiovascular Psychiatry and Neurology*. <https://doi.org/10.1155/2013/159850>
- PDSA: Plan-Do-Study-Act. (2019). Retrieved from <http://www.health.state.mn.us/divs/opi/qi/toolbox/pdsa.html>
- Plan-Do-Study-Act (PDSA) Cycle. (2013). Retrieved from <https://innovations.ahrq.gov/qualitytools/plan-do-study-act-pdsa-cycle>
- Potter, P., & Frisch, N. (2016). The holistic caring process. In B. Dossey & L. Keegan (Eds.), *Holistic nursing: A handbook for practice* (7th ed. (pp. 167-185). Burlington, MA: Jones & Bartlett Learning.

- Principles of holistic medicine. (n.d.). Retrieved from <https://ahha.org/selfhelp-articles/principles-of-holistic-medicine/>
- Prystowsky, E., Padanilam, B., & Fogel, R. (2015, July 21). Treatment of Atrial Fibrillation. *JAMA*, *314*(3), 278-288. <https://doi.org/10.1001/jama.2015.7505>
- Reynolds, M., & Essebag, V. (2012). Economic burden of atrial fibrillation: Implications for intervention. *The American Journal of Pharmacy Benefits*, *4*(2), 58-65.
Retrieved from http://www.ajpb.com/journals/ajpb/2012/ajpb_marapr2012/economic-burden-of-atrial-fibrillation-implications-for-intervention
- Roche, L., Barrachina, M., Fernandez, I., & Bentancort, M. (2017). YOGA and self-regulation in management of essential arterial hypertension and associated emotional symptomatology: A randomized controlled trial. *Complementary Therapies in Clinical Practice*, *29*, 153-161.
<https://doi.org/10.1016/j.ctcp.2017.09.012>
- Rogers, R. A. (2006). From cultural exchange to transculturation: a review and reconceptualization of cultural appropriation. *Commun. Theory* *16*, 474–503. doi: 10.1111/j.1468-2885.2006.00277.x
- Satchidananda, S. (2017). *The Yoga Sutras of Patanjali*. Buckingham, Virginia: Integral Yoga.
- Scott, J. (1998). *Seeing like a state*. New Haven: Yale University Press.
- Stam, R. & Shoat, E. (2005). “De-Eurocentricizing cultural studies: some proposals,” in *Internationalizing Cultural Studies: An Anthology*, eds A. (Malden, MA: Blackwell), 481-498.

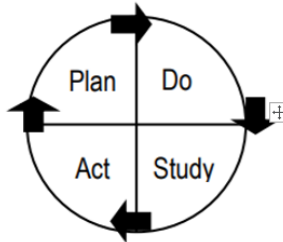
- Streeter, C., Jensen, J., Perlmeutter, R., Cabral, H., Tian, H., Terhune, D., ... Renshaw, P. (2007, May). Yoga asana sessions increase brain GABA levels: A pilot study. *Journal Alternate Complimentary Medicine, 13*(4), 419-426.
<https://doi.org/10.1089/acm.2007.6338>
- Telles, S., Pathak, S., Kumar, A., Mishra, P., & Balkrishna, A. (2015, Jul-Aug). Influence of intensity and duration of yoga on anxiety and depression scores associated with chronic illness. *Annals of Medical and Health Sciences Research, 5*(4), 260-265.
<https://doi.org/10.4103/2141-9248.160182>
- Thirhalli, J., Naveen, G., Rao, M., Varambally, S., Christopher, R., & Gangadhar, B. (2013, July). Cortisol and antidepressant effects of yoga. *Indian Journal of Psychiatry: Official Publication of the Indian Psychiatric Society, 55*(3), S405-S408. <https://doi.org/10.4103/0019-5545.116315>
- TYA. (2017). *Our mission*. Retrieved from https://www.yogaalliance.org/About_Yoga_Alliance
- Tyagi, A. & Cohen, M. (2014) Yoga and hypertension: A systematic review. *Alternative Therapies in Health and Medicine, 20*(2), 32-59. Retrieved from: <https://pdfs.semanticscholar.org/15f6/9de9af6481e14c7174fefacc2acflacd9bcb.pdf>
- Vaughn, A. (2016). *An introduction to the history and philosophy of Yoga*. [Kindle].
- Wahlstrom, M., Karlsson, M., Medin, J., & Frykman, V. (2017). Effects of yoga in patients with paroxysmal atrial fibrillation - A randomized controlled study. *European Journal of Cardiovascular Nursing, 16*(1), 57-63.
<https://doi.org/10.1177/1474515116637734>

- Walton, A., (2016, March). How yoga is spreading in the U.S. Retrieved from:
<https://www.forbes.com/sites/alicegwaltton/2016/03/15/how-yoga-is-spreading-in-the-u-s/#1ce5e9bd449f>
- Watson, J. (2007, Jan-Mar). Watson's theory of human caring and subjective living experiences: Carative factors as a disciplinary guide to the professional nursing practice. *Texto Contexto Enferm, Florianopolis, 16(1)*, 129-135. Retrieved from <http://www.scielo.br/pdf/tce/v16n1/a16v16n1.pdf>
- Watson, J. (2008). *Nursing: The philosophy and science of caring (rev ed.)*. Boulder: University Press of Colorado.
- Watson, J. (2012). *Human caring science: A theory of nursing (2nd ed.)*. Sudbury, MA: Jones & Bartlett Learning.
- Wendler, M. (1996). Understanding healing: A conceptual analysis. *Journal of Advanced Nursing, 24*, 836-842. Retrieved from https://moodle.augsburg.edu/moodle2016/pluginfile.php/249830/mod_resource/content/1/NUR%20803%20Wendler_Tha_concept_of_Healing_analysis_.pdf
- Wolfe, C., & Rudd, T. (2007). *The burden of stroke white paper: Raising awareness of the global toll of stroke-related disability and death*. Retrieved from SAFIBE: Stroke Alliance for Europe: http://sAfibestroke.eu/wp-content/uploads/2016/07/FINAL_Burden_of_Stroke.pdf
- Yu, S., Zhao, Q., Wu, P., Qin, M., Huang, H., Cui, H., & Huang, C. (2012, November). Effect of anxiety and depression on the recurrence of paroxysmal atrial fibrillation after circumferential pulmonary vein ablation. *Journal of Cardiovascular*

Electrophysiology, 23(s1), s17-s23. <https://doi.org/10.1111/j.1540-8167.2012.02436.x>

Appendices

Appendix A: PDSA Worksheet



PDSA WORKSHEET

Name: Jessica McAlpine NP-C	Test Start Date: 05/1/2018	Test Completion Date: 08/7/2018
Overall project aim/ objective of the test: Quality Improvement project to utilize Yoga as an integrated recommendation for patients with a diagnosis of atrial fibrillation (AF) that are seen in my clinic to incorporate the nursing principle of holistic caring. The purpose of this test is to determine the real-world feasibility of promoting Yoga as an intervention by assessing the willingness of patients to engage in Yoga after a brief in-clinic introduction to the modality and to follow up with them in 12 weeks to see if they continued the practice, discover if resources were helpful, and if Yoga improved wellness.		

<p>Plan: <i>Brief description of test/data collection:</i> 1. Give 12 patients a brief introduction to Yoga during AF clinic appointment from 5/1/2018-5/15/2018. 2. Ask if patient is willing to practice Yoga on their own. 3. If #2 is yes, give resource materials and proceed to follow up call at 12 weeks to assess if practicing Yoga \geq 1 day/week, < 1 day/week, or not at all, if they found Yoga improved their wellness, and if they found the resources helpful. <i>How will you know that the change is an improvement? At least 25% of patients will be practicing Yoga \geq 1 day/week.</i></p> <p>Act: Decide to Adopt, Adapt, or Abandon.</p> <p><input checked="" type="checkbox"/> Adapt: Improve the change and continue testing plan. Plans/changes for next test:</p> <ul style="list-style-type: none"> • Create an Intro to Yoga for Heart Health group class <p><input type="checkbox"/> Adopt: Select changes to implement and plan for sustainability or implementation on a larger scale.</p> <p><input type="checkbox"/> Abandon: Discard this change and try a different idea.</p>	<p>Do: Test the changes. <i>Was the test carried out as planned? no</i></p> <p><i>What was observed that was not part of the plan?</i></p> <ul style="list-style-type: none"> • time constraint during office visit required simple yoga sequence introduction to be cut drastically <p>Study: <i>Record data:</i></p> <ul style="list-style-type: none"> • #patients introduced to Yoga: 12 • #patients willing to practice on own: 10 • #patients practicing \geq1 day/week at follow up: 2 • #patients practicing < 1 day/week at follow up: 2 • #patients not practicing at all at follow up: 6 • Yoga improved wellness. Yes: 3 No: 7 • Resources helpful? <ul style="list-style-type: none"> ○ Online links to local yoga. Yes: 1 No: 9 ○ Brief intro to Yoga home sequence. Yes: 4 No: 6 <p><i>What was learned: Consider more in-depth yoga instruction such as a group yoga class or teaming with a local yoga studio</i></p>
---	--

Appendix B: Simple Yoga Sequence

Simple sequence planned:

Seated Mountain Pose

Seated Cat and Cow Pose

Seated Side Angle

Seated Chest Expansion

Seated Spinal Twist

Seated Pigeon

Ujjayi Pranayama

Simple sequence utilized:

Seated Mountain Pose

Seated Cat and Cow Poses

Seated Chest Expansion

Ujjayi Pranayama

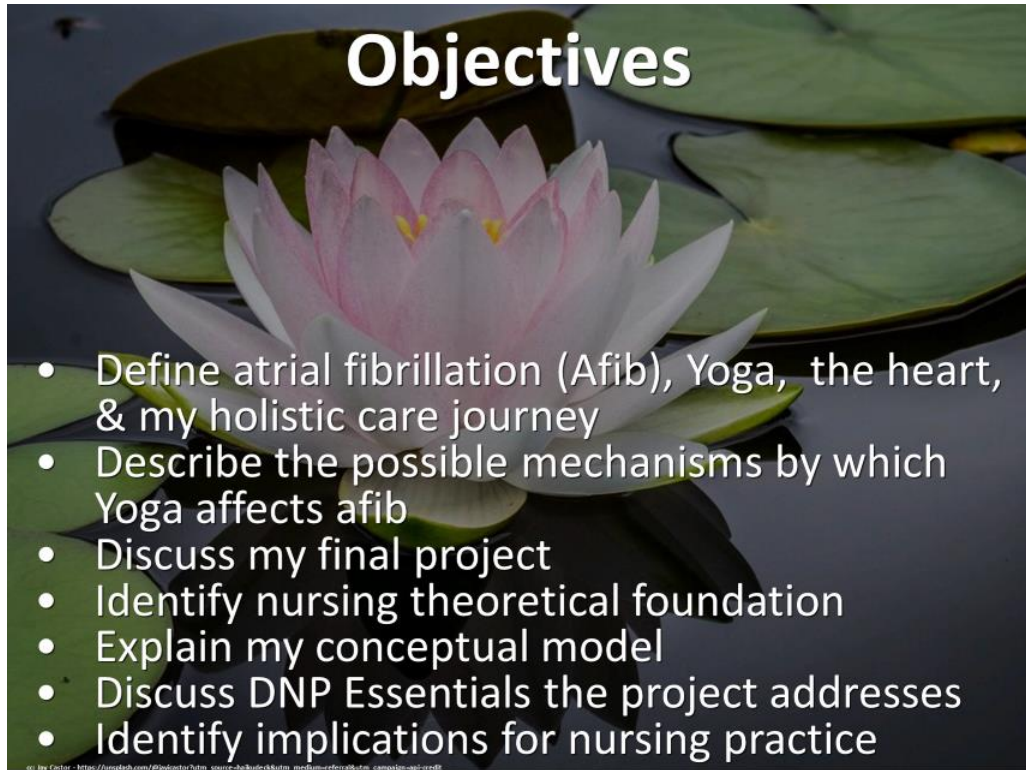
Appendix C: Online Yoga Resource Link

Resource link to local free or low-cost yoga (link is updated periodically) provided to patients:

<https://twincitiesonthecheap.com/your-guide-to-free-or-cheap-yoga-in-the-twin-cities>

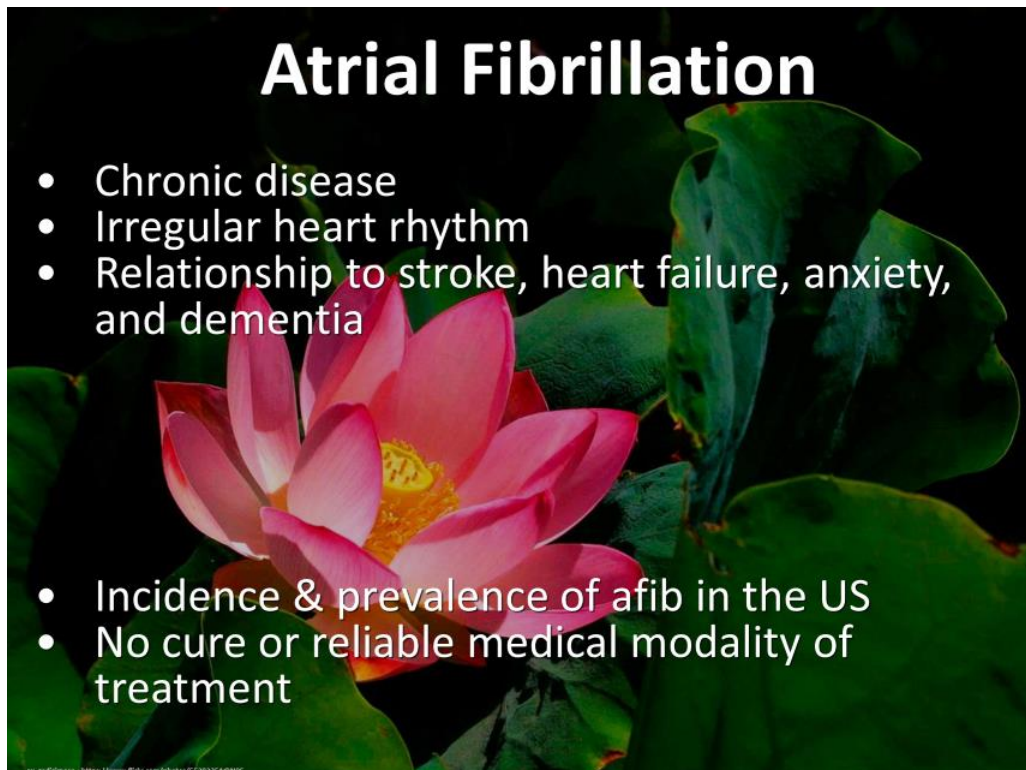
Appendix D: DNP Project Presentation Slides





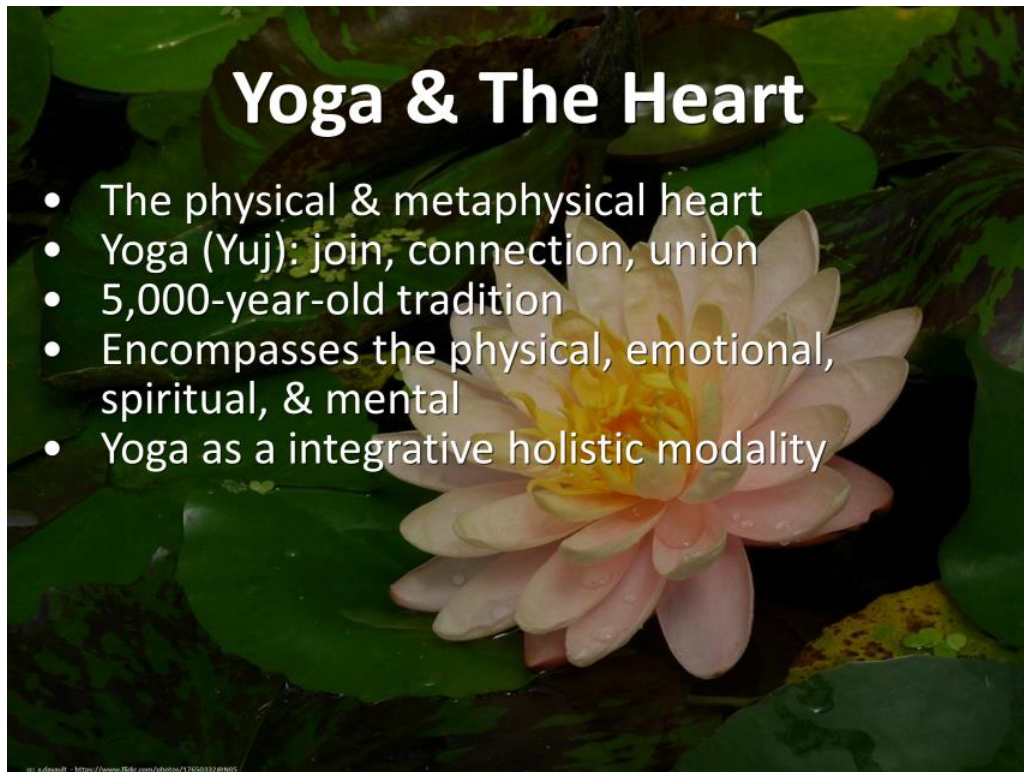
Objectives

- Define atrial fibrillation (Afib), Yoga, the heart, & my holistic care journey
- Describe the possible mechanisms by which Yoga affects afib
- Discuss my final project
- Identify nursing theoretical foundation
- Explain my conceptual model
- Discuss DNP Essentials the project addresses
- Identify implications for nursing practice



Atrial Fibrillation

- Chronic disease
- Irregular heart rhythm
- Relationship to stroke, heart failure, anxiety, and dementia
- Incidence & prevalence of afib in the US
- No cure or reliable medical modality of treatment



Yoga & The Heart

- The physical & metaphysical heart
- Yoga (Yuj): join, connection, union
- 5,000-year-old tradition
- Encompasses the physical, emotional, spiritual, & mental
- Yoga as a integrative holistic modality

cc: 0/istock - <https://www.istock.com/photos/17650332/0805>



My Journey into Holistic Care

- Enrolled in a 200 hour Registered Yoga Teacher program to be certified through The Yoga Alliance

cc: 0/istock - <https://www.istock.com/photos/52316237/0800>

Possible Mechanisms by Which Yoga Affects Afib

- Decreased
 - Cortisol, anxiety, stress, depression, heart rate, blood pressure, oxygen consumption, afib burden, afib related symptoms, intima-media thickness
- Increased
 - Melatonin, QOL, sleep quality, GABA, muscle strength, cerebral blood flow in areas that regulate emotion & autonomic function

© All text - <http://www.holisticnurses.com/empowerhealth-source-to-benefit-kids-medicine-education-campaign-afib-02018/>

My Final Project: Integrating Yoga

Plan-Do-Study-Act

PDSA WORKSHEET

Name: Jessica McAlpine NP-C **Test Start Date:** 05/1/2018 **Test Completion Date:** 08/7/2018

Overall project aim/ objective of the test: Quality Improvement project to utilize Yoga as an integrated recommendation for patients with a diagnosis of atrial fibrillation (AF) that are seen in my clinic to incorporate the nursing principle of holistic caring. The purpose of this test is to determine the real-world feasibility of promoting Yoga as an intervention by assessing the willingness of patients to engage in Yoga after a brief in-clinic introduction to the modality and to follow up with them in 12 weeks to see if they continued the practice, discover if resources were helpful, and if Yoga improved wellness.

Plan: Brief description of test/data collection: 1. Give 12 patients a brief introduction to Yoga during AF clinic appointment from 5/1/2018-5/15/2018.
2. Ask if patient is willing to practice Yoga on their own.
3. If #2 is yes, give resource materials and proceed to follow up call at 12 weeks to assess if practicing Yoga ≥ 1 day/week, < 1 day/week, or not at all, if they found Yoga improved their wellness, and if they found the resources helpful.
How will you know that the change is an improvement? At least 25% of patients will be practicing Yoga ≥ 1 day/week.

Act: Decide to Adopt, Adapt, or Abandon.

Adopt: Improve the change and continue testing plan. Plus changes for next test:
• Create an Intro to Yoga for Heart Health group class

Adapt: Select changes to implement and plan for sustainability or implementation on a larger scale.

Abandon: Discard this change and try a different idea.

Do: Test the changes.
Was the test carried out as planned? no

What was observed that was not part of the plan?

- time constraint during practice visit required simple yoga sequence introduction to be cut drastically

Study: Record data:

- #patients introduced to Yoga: 12
- #patients willing to practice on own: 10
- #patients practicing ≥ 1 day/week at follow up: 2
- #patients practicing < 1 day/week at follow up: 2
- #patients not practicing at all at follow up: 6
- Yoga improved wellness: Yes: 3 No: 7
- Resources helpful?
 - Online links to local yoga: Yes: 1 No: 9
 - Brief intro to Yoga home sequence: Yes: 4 No: 6

What was learned: Consider more in-depth yoga instruction such as a group yoga class or teaming with a local yoga studio

Plan Step

```

graph TD
    A[12 patients with Afib introduced to Yoga during clinic appointment] --> B[2 patients decline to learn more practice Yoga]
    A --> C[10 patients willing to learn more practice Yoga]
    B --> D[No further Yoga teaching Normal care provided.]
    C --> E[Taught Yoga sequence. Given Yoga resource. Normal care provided.]
    E --> F[12 week follow up telephone call]
    F --> G["* 2 patients practicing Yoga > or equal to 1 day/week  
* 2 patients practicing Yoga < 1 day/week  
* 6 patients not practicing Yoga"]
    F --> H["* 3 patients report Yoga improved wellness  
* 7 patients report Yoga did not improve wellness"]
    F --> I["* 1 patient found online resource helpful  
* 9 patients did not find online resource helpful  
* 4 patients found in-clinic Yoga sequence helpful  
* 6 patients did not find in-clinic Yoga sequence helpful"]
            
```

- Step-wise approach
- Teach a short chair-Yoga sequence
- Link to free & reduced Yoga in the community
- 12 week follow up phone call
- Goal: 25% practicing at least some Yoga at follow up

cc: Stanley Zhuang (Thank You for 36 Million views) - <https://www.flickr.com/photos/82256084@N00>

Do Step

- Plan is enacted
- Changes: had to shorten the Yoga sequence taught
- Results:
 - 83% willing to learn more
 - 33% practicing at least some Yoga at 12 weeks
 - 25% reported improved feeling of wellness
 - 33% found the in-clinic Yoga helpful
 - 8.3% found the link helpful

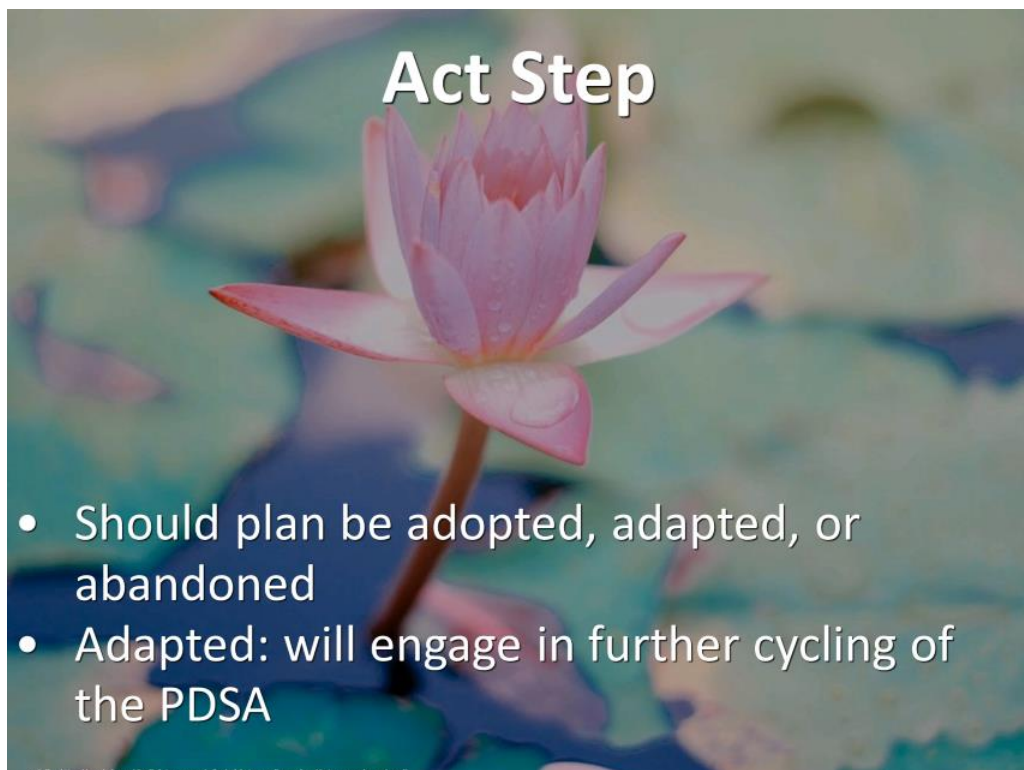
cc: sebastian - <https://www.flickr.com/photos/60149539@N00>



Study Step

- Goal was met
- Time-constraints of clinic visit
- No unintended side-effects or complications

© bhavadaki (Save the Monarch, Plant Migrate) - <http://www.flickr.com/photos/40511207@N05>



Act Step

- Should plan be adopted, adapted, or abandoned
- Adapted: will engage in further cycling of the PDSA

© bhfu - http://imglib.com/duff/tm_source-hakides&tm_medium=referral&tm_campaign=opt-credit

Future Plans

- Continue to recommend Yoga
- Provide link to free & reduced Yoga
- Hold a Introduction to Yoga for Heart Health class

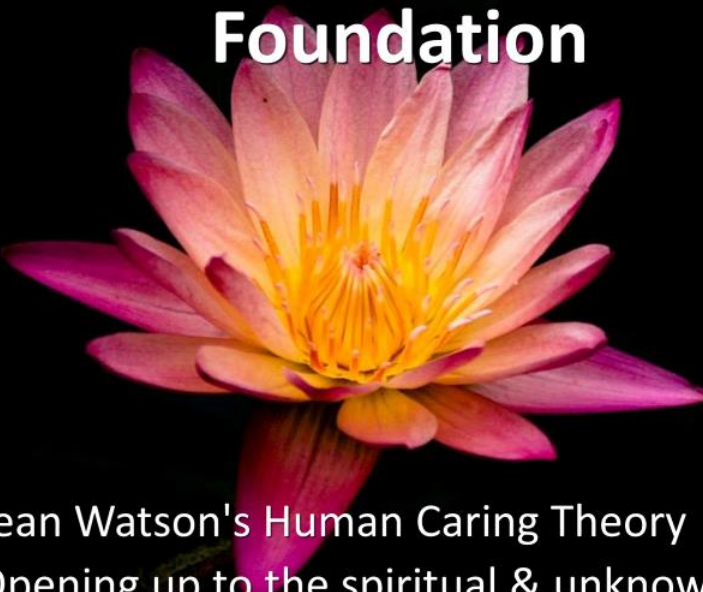
©: kexmole - <http://www.flickr.com/photos/76530762@N03>

Nursing Theoretical Foundation

- Jean Watson's Human Caring Theory
- Developing a transpersonal caring relationship

©: ma094 - <http://www.flickr.com/photos/13323015@N00>


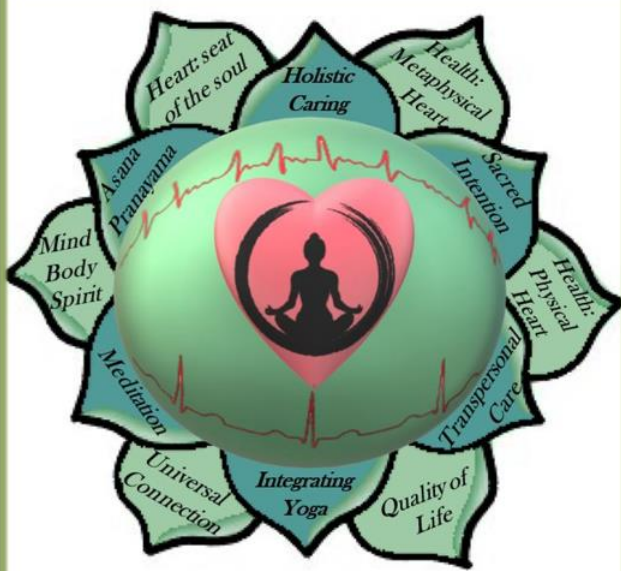
Nursing Theoretical Foundation



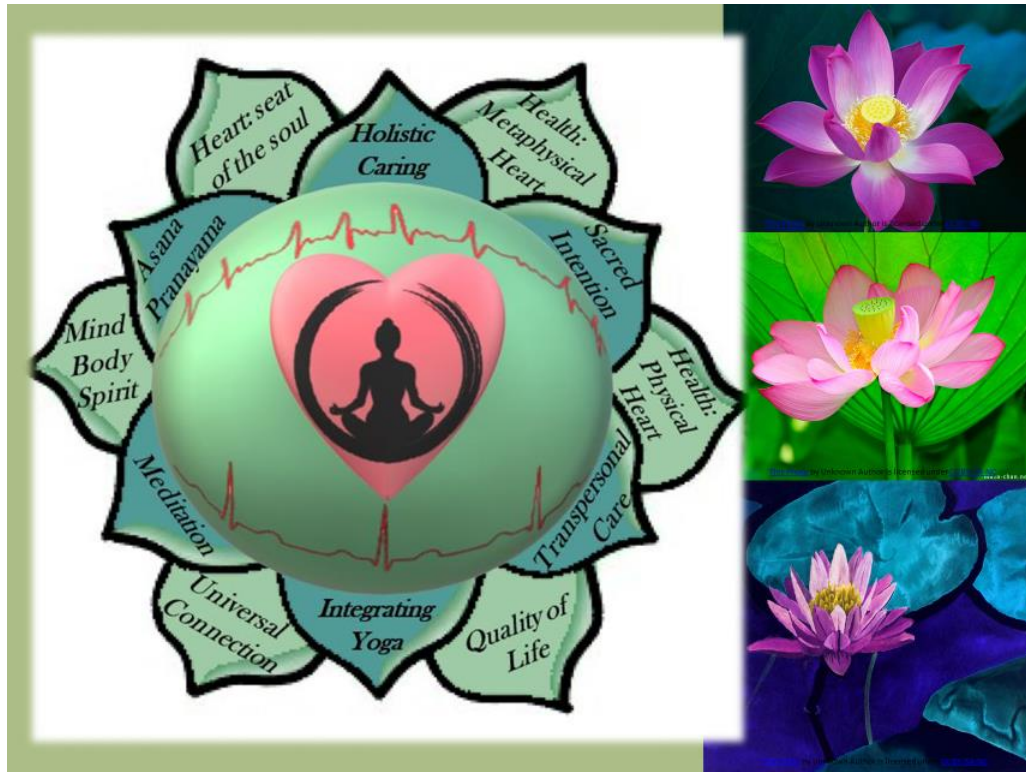
- Jean Watson's Human Caring Theory
- Opening up to the spiritual & unknown

©: Ryan Baker - https://unsplash.com/@thefreshbaker?utm_source=halukelkku&utm_medium=referral&utm_campaign=api-credit

Conceptual Model: The Unfolding Lotus



The diagram illustrates a conceptual model for nursing, represented as an unfolding lotus flower. At the center is a pink heart containing a silhouette of a person in a meditative pose. A red ECG line surrounds the heart. The petals are labeled with various concepts: Heart: seat of the soul, Holistic Caring, Health: Metaphysical Heart, Sacred Intention, Health: Physical Heart, Transpersonal Care, Quality of Life, Integrating Yoga, Universal Connection, Meditation, Mind Body Spirit, Asana Pranayama.



AACN DNP Essentials

- Essential II: *Organizational and Systems Leadership for Quality Improvement and Systems Thinking*
- Thoughtful analysis of how to best integrate Yoga into the care of patient's living with afib



AACN DNP Essentials

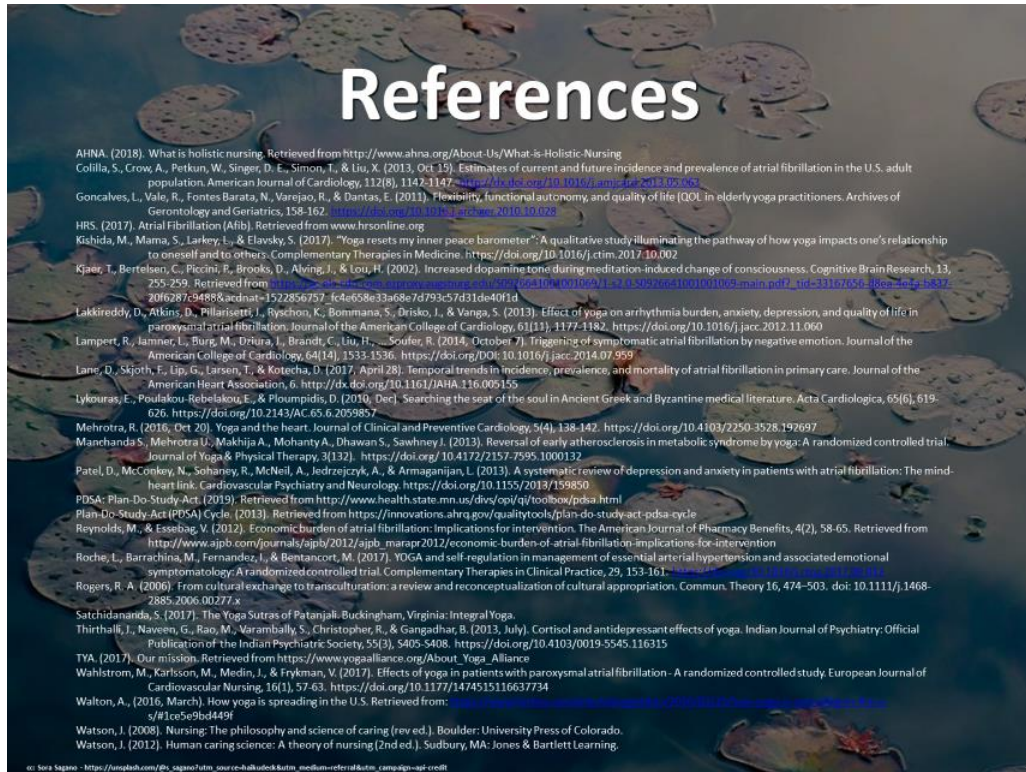
- Essential VII: *Clinical Prevention and Population Health for Improving the Nation's Health*
 - Epidemiological data
 - Determinants of health
 - Health promotion/disease prevention
 - Psychosocial dimension
 - Cultural
 - Socioeconomic



Implications for Nursing Practice

- Nurse immersion in learning
- Intersection of nursing theory & holistic modalities
- Yoga as a lens to focus caring intentions

© George Lu - <https://www.istock.com/photo/19323895-0400>



References

AHNA. (2018). What is holistic nursing. Retrieved from <http://www.ahna.org/About-Us/What-is-Holistic-Nursing>

Colilla, S., Crow, A., Petkun, W., Singer, D. E., Simon, T., & Liu, X. (2013, Oct 15). Estimates of current and future incidence and prevalence of atrial fibrillation in the U.S. adult population. *American Journal of Cardiology*, 112(8), 1142-1147. <https://doi.org/10.1016/j.amjcard.2013.07.054>

Goncalves, L., Vale, R., Fontes Barata, M., Varejao, P., & Damtas, E. (2012). Flexibility, functional autonomy, and quality of life (QoL) in elderly yoga practitioners. *Archives of Gerontology and Geriatrics*, 158-162. <https://doi.org/10.1016/j.archger.2010.10.026>

HRS. (2017). Atrial Fibrillation (Afib). Retrieved from www.hrsonline.org

Kishida, M., Mama, S., Larkey, L., & Elavsky, S. (2017). "Yoga resets my inner peace barometer": A qualitative study illuminating the pathway of how yoga impacts one's relationship to oneself and to others. *Complementary Therapies in Medicine*. <https://doi.org/10.1016/j.ctim.2017.10.002>

Kjaer, T., Bertelsen, C., Piccini, P., Brooks, D., Alving, J., & Lou, H. (2002). Increased dopamine tone during meditation-induced change of consciousness. *Cognitive Brain Research*, 13, 255-259. Retrieved from [https://doi.org/10.1016/S0926-6410\(01\)00691-1](https://doi.org/10.1016/S0926-6410(01)00691-1)

Lakkireddy, D., Atkins, D., Pillarisetti, J., Ryschon, K., Bommana, S., Drisko, J., & Vanga, S. (2013). Effect of yoga on arrhythmia burden, anxiety, depression, and quality of life in paroxysmal atrial fibrillation. *Journal of the American College of Cardiology*, 61(11), 1177-1182. <https://doi.org/10.1016/j.jacc.2012.11.060>

Lampert, R., Jammer, L., Burg, M., Dittus, J., Brandt, C., Liu, H., & Soder, R. (2014, October 7). Tilting of symptomatic atrial fibrillation by negative emotion. *Journal of the American College of Cardiology*, 64(14), 1533-1536. <https://doi.org/10.1016/j.jacc.2014.07.999>

Lane, D., Sjöth, F., Lipp, G., Larsen, T., & Kotecha, D. (2017, April 28). Temporal trends in incidence, prevalence, and mortality of atrial fibrillation in primary care. *Journal of the American Heart Association*, 6. <http://dx.doi.org/10.1161/JAHA.116.005155>

Lykouras, E., Poulakou-Rebelakou, E., & Ploumpidis, D. (2010, Dec). Searching the seat of the soul in Ancient Greek and Byzantine medical literature. *Acta Cardiologica*, 65(6), 619-626. <https://doi.org/10.2143/AC.65.6.209857>

Mehrotra, R. (2016, Oct 20). Yoga and the heart. *Journal of Clinical and Preventive Cardiology*, 5(4), 138-142. <https://doi.org/10.4103/2250-3528.192697>

Manchanda S., Mehrotra U., Makhija A., Mohanty A., Dhawan S., Sawhney J. (2013). Reversal of early atherosclerosis in metabolic syndrome by yoga: A randomized controlled trial. *Journal of Yoga & Physical Therapy*, 3(132). <https://doi.org/10.4172/2157-7595.1000132>

Patel, D., McConkey, N., Sohaney, R., McNeil, A., Jedrzejczyk, A., & Armaganjian, L. (2013). A systematic review of depression and anxiety in patients with atrial fibrillation: The mind-heart link. *Cardiovascular Psychiatry and Neurology*. <https://doi.org/10.1155/2013/159850>

PDSA: Plan-Do-Study-Act. (2019). Retrieved from <http://www.health.state.mn.us/divs/cepi/qi/toolbox/pdsa.html>

Plan-Do-Study-Act (PDSA) Cycle. (2013). Retrieved from <https://innovations.ahrq.gov/qualitytools/plan-do-studyact-pdsa-cycle>

Reynolds, M., & Essebag, V. (2012). Economic burden of atrial fibrillation: Implications for intervention. *The American Journal of Pharmacy Benefits*, 4(2), 58-65. Retrieved from http://www.ajpb.com/journals/ajpb/2012/ajpb_marap2012/economic-burden-of-atrial-fibrillation-implications-for-intervention

Roche, L., Barrachina, M., Fernandez, J., & Bentancort, M. (2017). YOGA and self-regulation in management of essential arterial hypertension and associated emotional symptomatology: A randomized controlled trial. *Complementary Therapies in Clinical Practice*, 29, 153-161. <https://doi.org/10.1016/j.ctcp.2017.03.004>

Rogers, R. A. (2006). From cultural exchange to transculturation: a review and reconceptualization of cultural appropriation. *Commun. Theory*, 16, 474-503. doi: 10.1111/j.1468-2885.2006.00277.x

Satchidananda, S. (2017). *The Yoga Sutras of Patanjali*. Buckingham, Virginia: Integral Yoga.

Thirihalli, J., Navene, G., Rao, M., Narambilly, S., Christopher, R., & Gangadhar, B. (2013, July). Cortisol and antidepressant effects of yoga. *Indian Journal of Psychiatry: Official Publication of the Indian Psychiatric Society*, 55(3), S405-S408. <https://doi.org/10.4103/0019-5545.116315>

TYA. (2017). Our mission. Retrieved from https://www.yogaalliance.org/About_Yoga_Alliance

Wahlstrom, M., Karlsson, M., Medin, J., & Frykman, V. (2017). Effects of yoga in patients with paroxysmal atrial fibrillation - A randomized controlled study. *European Journal of Cardiovascular Nursing*, 16(1), 57-63. <https://doi.org/10.1177/1474515116637734>

Walton, A., (2016, March). How yoga is spreading in the U.S. Retrieved from: <https://www.foxnews.com/story/2016/03/23/yoga-is-spreading-in-the-us>

Watson, J. (2008). *Nursing: The philosophy and science of caring* (rev ed.). Boulder: University Press of Colorado.

Watson, J. (2012). *Human caring science: A theory of nursing* (2nd ed.). Sudbury, MA: Jones & Bartlett Learning.

cc: Sara Sagano - <https://www.gettyimages.com/photos/1191746404>



Questions?

cc: MarekG - <http://www.flickr.com/photos/2611274@N04/>

AUGSBURG UNIVERSITY

Augsburg University Institutional Repository Deposit Agreement

By depositing this Content ("Content") in the Augsburg University Institutional Repository known as Idun, I agree that I am solely responsible for any consequences of uploading this Content to Idun and making it publicly available, and I represent and warrant that:

- I am *either* the sole creator or the owner of the copyrights in the Content; or, without obtaining another's permission, I have the right to deposit the Content in an archive such as Idun.
- To the extent that any portions of the Content are not my own creation, they are used with the copyright holder's expressed permission or as permitted by law. Additionally, the Content does not infringe the copyrights or other intellectual property rights of another, nor does the Content violate any laws or another's right of privacy or publicity.
- The Content contains no restricted, private, confidential, or otherwise protected data or information that should not be publicly shared.

I understand that Augsburg University will do its best to provide perpetual access to my Content. To support these efforts, I grant the Board of Regents of Augsburg University, through its library, the following non-exclusive, perpetual, royalty free, worldwide rights and licenses:

- To access, reproduce, distribute and publicly display the Content, in whole or in part, to secure, preserve and make it publicly available
- To make derivative works based upon the Content in order to migrate to other media or formats, or to preserve its public access.

These terms do not transfer ownership of the copyright(s) in the Content. These terms only grant to Augsburg University the limited license outlined above.

Initial one:

JM I agree and I wish this Content to be Open Access.

I agree, but I wish to restrict access of this Content to the Augsburg University network.

Work (s) to be deposited

Title: The heart of atrial fibrillation: Integrating yoga for holistic care

Author(s) of Work(s): Jessica Lee McAlpine

Depositor's Name (Please Print): Jessica Lee McAlpine

Author's Signature: [Signature] Date: 6/1/2019

If the Deposit Agreement is executed by the Author's Representative, the Representative shall separately execute the following representation.

I represent that I am authorized by the Author to execute this Deposit Agreement on the behalf of the Author.

Author's Representative Signature: _____ Date: _____