

WORK/LIFE BALANCE ISSUES FOR FEMALE PHYSICIANS AND IMPLICATIONS FOR  
MEDICAL EDUCATION

by

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## **CHAPTER 1: INTRODUCTION**

### **Introduction and Background of Study**

The practice of medicine is a profession full of long hours and demanding workloads. In accordance with greater medical culture and tradition, physicians are typically rewarded for such hard and demanding work with promotions, high salaries, and prestige, making total devotion to work a strong motivating force (Epstein, Seron, Oglensky, & Saute, 1999). This cultural indoctrination begins in medical school and continues throughout all other medical training and practice. Devotion to patients and the practice of medicine is to be equal to or supersede all other priorities of a physician.

There are two types of physicians in the United States – allopathic or Medical Doctors (MDs) and osteopathic or Doctors of Osteopathic Medicine (DOs). Although both allopathic and osteopathic physicians now carry the same credentials and privileges concerning medical practice, surgery, and use of pharmaceutical agents, there are historical differences that are worth exploring. Osteopathic physicians are trained to treat the whole person in terms of health promotion and disease prevention, as well as the use of a hands-on system of diagnosis and treatment called osteopathic manipulative medicine (American Association of Colleges of Osteopathic Medicine, 2015). DO programs have a long history of accepting women into their programs; the first DO program in 1892 included at least six female students (Schierhorn, 2015). Allopathic doctors or MDs are more common in the United States and have what is considered traditional medical training - centered on treating symptoms and diseases with pharmaceuticals or surgery - and is often called Western or conventional medicine (National Cancer Institute, 2015). Although women have been members of the American Medical Association since 1876 (American Medical Association, 2015a), MD schools as a whole were slower than osteopathic

schools at welcoming women into medical programs. In short, DO programs traditionally focus on a more holistic, integrative approach to medicine while MDs traditionally focus on disease, eradication of symptoms and historically have been a more closed profession.

Women were not always welcome in higher education in general, not just medical schools. In 1837 Oberlin College became the first institution of higher education in the United States to admit women (Oberlin College, 2015). During the late 19<sup>th</sup> century and early parts of the 20<sup>th</sup> century, the creation of normal schools, teachers colleges, and elite women's colleges allowed more women access to higher education (Goldin, Katz, & Kuziemko, 2006). This was still not a large number of women, considering only 10% of the entire population pursued higher education at this time (Goldin, 1992). These women faced a stiff personal penalty for pursuing their education – it was a career usually in teaching or raising a family – as there were few opportunities to combine the two parts of life (Goldin, 1992). The GI Bill, which provided educational opportunities for World War II veterans, and the Cold War, which demanded science and technology research, provided the impetus for massive amounts of money, resources, and students pouring into higher education in the 1950s and 60s (Goldin, 1992). The passage of Title IX in 1972 guaranteed equality of educational access for men and women to all levels of education programs, from kindergarten through graduate studies (McCarthy & Eckes, 2011), and thereby dramatically increased the participation of women in education (National Center for Education Statistics, 2015). A relevant example demonstrating the impact of Title IX: in 1965 women were 7.9% of all students enrolled in medical school but in 2013, women were 46.7% of all enrolled medical students (Association of American Medical Colleges, 2015c).

According to statistics from the U.S. Department of Labor Women's Bureau (2015a), female participation in the labor force has risen steadily since 1970 for women of all races, ages,

educational levels, marital status, number of children, and occupations. Women now comprise about 46% of the labor force (U.S. Department of Labor Women's Bureau, 2015b). Even though women have almost achieved workforce parity with men in term of participation numbers, there is an ongoing culture war for women regarding work and family. Typically called "mommy wars" (Jones, 2012, p.10), this is a well-known phenomenon affecting almost all women; it is the role conflict between what is traditionally expected from women as mothers and caregivers and from women as working professionals.

Female physicians are not exempt from the conflicting roles of wife/mother/family member and doctor, with both roles being extremely demanding. Since the 1970s, the participation of women in medical school has steadily increased, which in turn has resulted in women currently comprising roughly one-third of all practicing physicians (Association of American Medical Colleges, Center for Workforce Studies, 2015). However, female physicians are more likely to earn less money, hold fewer positions of authority in medical schools and organizations, remain unmarried, have fewer children, and specialize in primary care and other less prestigious specialties than men (Martin, Arnold, & Parker, 1988). As such, women physicians may encounter different work/life balance issues compared to their male colleagues because of the ongoing cultural expectations regarding women and family life.

### **Research Purpose and Guiding Questions**

As a result of my research, experience, and observations with the above information regarding the culture of medicine and cultural shifts surrounding women in the workforce, I have developed the following ideas, assumptions, and thoughts:

- Work/life balance issues exist for families (particularly women) because of human resource policies, childcare costs, and cultural conventions which often make family responsibilities an impediment to career progression.
- Growing numbers of women are attending medical school and practicing as physicians.
- There are high economic and opportunity costs of completing medical education with an unknown amount of emphasis in the curriculum on preparation for professional challenges such as work/life balance issues in medical practice.
- The cultural phenomena of ‘opting out’ (highly educated women on dedicated career paths who leave the traditional workforce completely to raise their children) is much discussed in the media without firm facts about how many women are actually opting out of the workforce.
- Most discussions surrounding the opting out phenomena are about professions which require graduate education – law, finance, management – but rarely medicine.

In order to reconcile these ideas and to have a better understanding of what is currently happening, this research seeks to discover the specific work/life balance issues female physicians face and recommend mitigating solutions that could be introduced during medical education and training. Specifically, this research aims to ascertain:

1) How do female physicians manage work/life balance issues?

- What are the specific challenges women face?
- How are these challenges perceived to be different from those of male physicians?
- Have work/life balance issues changed over time?

2) How does medical education and training prepare women for these issues?

- What are realistic programmatic ideas for medical education and training to adopt to prepare physicians for work/life balance challenges?

### **Theoretical Frameworks and Researcher Positionality**

Research is conducted through a combination of theoretical frameworks and the positionality of the researcher. This study was not an exception. Although it could be considered bias, it is rather understood as the perspective through which this research was conducted and analyzed. There are two main theories which comprise the overall theoretical framework for this study; both theories will be explored in greater depth in Chapter 2.

#### **Social Role Theory**

Social Role Theory (Eagly, 1987) is centered on the “numerous ways in which the social behaviors that differ between the sexes are embedded in social roles – in gender roles as well as in many other roles pertaining to work and family life” (p. 9). Furthermore, these roles are communally shared because they are widely accepted within a culture and create stereotypes for what is appropriate behavior for each gender. These stereotypes are usually rooted in division of labor (domestic or professional) between the sexes. Eagly (1987) is clear to point out that there are other roles, such as employment or professional roles, which can override the saliency of gender roles and create a higher level of shared expectation of behavior regardless of gender. Therefore, gender roles are those which are embedded in culture as the ‘default’ mode, but other roles can and do override them in certain circumstances. This informs the research by creating an understanding of how social roles are constructed and the conflict that can occur between different roles.

## **Work/Family Border Theory**

In 2000, Clark developed her theory of work/life balance called Work/Family Border Theory which “is an attempt to explain the complex interaction between border-crossers and their work and family lives, to predict when conflict will occur, and give a framework for attaining balance” (p. 748). Clark views the demarcation between work and family as a border which individuals, or border-crossers, both negotiate and cross each day in transition from one realm to another (Clark, 2000). In addition, Clark’s theory is comprised of eight propositions that can be used to predict when and with whom work/life balance conflicts will arise (Clark, 2000). Clark’s theory is unique in that it offers insight in explaining work/life balance conflicts and, furthermore, how to make work/life balance easier to attain – which, in turn, is fundamental to understanding how women physicians create work/life balance.

## **Researcher Positionality**

In full disclosure, I am not a physician nor do I have any formal medical training. Furthermore, I do not have any preference for the DO or MD approach to medicine but respect the different history and traditions of each. I currently work at a medical school and am therefore familiar with the process of medical education and training. What I lack in medical training, I compensate for with a passion for graduate medical education and for preparing students to become healthy and successful medical professionals. While I am female, I am not married and do not have children, yet I have watched countless peers navigate this issue first-hand. Through my observations, research, and anecdotal information, I have a deep understanding of what it means to struggle with work/life balance issues. These facts, along with the theoretical frameworks, frame the perspective through which this research was conducted.

## **Significance of Study**

The significance of this study is that it illuminated the particular issues regarding work/life balance facing female physicians which can be used to inform medical education and practice. Medical education is the crossroads of the science of medicine and the art of education, where practitioners and scientists meet to create an educational experience that properly trains medical professionals for current and future tasks while also contributing to the scientific base of knowledge (Mann, Dornan, & Teunissen, 2011). Not only is medical education taught by experienced physicians, mentoring between veteran and newer physicians is a rich tradition within medicine. This facilitates the strong influence of older, experienced physicians on successive generations of doctors. Therefore, without knowing what is currently happening in medical practice or education, it is impossible to create cultural change or impact current and future medical students. Although work/life balance is not solely a female issue, it is often framed as such, and this research explored the issues through the female lens. That being said, this research sought to inform the professional practice curricula and co-curricula that teaches and prepares students – current and future medical students, male and female alike – for the practice of medicine. A key measure of significance is whether medical education, which may be excellent at teaching clinical skills, can also prepare students to become well-balanced professionals.

## **Definitions of Common Terms**

Several terms are used extensively throughout this research that may require some explanation. When the following terms are used, these are the understood definitions:

- *Allopathic Medicine*: A form of medicine in which physicians are trained to “treat symptoms and diseases using drugs, radiation, or surgery. Also called biomedicine,

conventional medicine, mainstream medicine, orthodox medicine, and Western medicine” (National Cancer Institute, 2015). The theory of allopathic medicine is to create a condition that is incompatible or antagonistic to the condition being treated, such as an antibiotic for diseases caused by organisms to which the drug is antagonistic (Slee, Slee, & Schmidt, 2008). Allopathic medicine is the predominant medical system in the United States, with practitioners called Doctors of Medicine or MDs (Slee et al., 2008).

- *DO*: Doctor of Osteopathic Medicine degree, awarded from a college of osteopathic medicine. Allowed full rights and privileges of a physician in all 50 states with regards to medical practice, surgery, and use of pharmaceutical agents.
- *Fellowship*: A one to three year program of additional training post-residency in a subspecialty for those physicians who want to become highly specialized in a certain medical field (American Medical Association, 2015b).
- *Graduate Medical Education (GME)*: Second phase of formal educational process that prepares doctors for medical practice (Association of American Medical Colleges, 2015b). Must be completed for those who seek full medical licensure and board certification in a medical specialty. Often called Residency (see below) and can include additional years called a Fellowship (see above) (Association of American Medical Colleges, 2015b).
- *MD*: Doctor of Medicine degree, awarded from a college of allopathic medicine. Allowed full rights and privileges of a physician in all 50 states with regards to medical practice, surgery, and use of pharmaceutical agents.

- *Medical Education:* Total process by which a person trains to become a physician, comprised of Medical School and GME. This is at least a seven-year process.
- *Medical School:* Also called undergraduate medical education (see below), it is the first part of medical education where a student learns the knowledge and skills necessary to earn a DO or MD degree. It is a four-year post-baccalaureate program accredited by either American Association of Colleges of Osteopathic Medicine (AACOM) for a DO degree or Liaison Committee on Medical Education (LCME) for an MD degree. Usually comprised of two years of classroom training followed by two years of clinical training or rotations (American Medical Association, 2015b).
- *Medicine (science):* The art and science of the diagnosis and treatment of disease as well as the maintenance of health (Slee et al., 2008).
- *Osteopathic Medicine:* A form of medicine in which physicians are trained in all aspects of modern medicine including pharmaceuticals, surgery, and the use of technology to diagnose, treat, and heal patients. In addition, training includes osteopathic manipulative treatment as a hands-on diagnosis and treatment therapy (American Association of Colleges of Osteopathic Medicine, 2015). Differs from allopathy with a greater attention to body mechanics, manipulation therapy, and the belief in natural body mechanisms to heal itself (Slee et al., 2008). Practitioners are Doctors of Osteopathic Medicine or DOs (Slee et al., 2008).
- *Residency:* Program for completing GME. Programs vary in length depending on specialty, but generally three to five years for initial board certification (American Medical Association, 2015a; Association of American Medical Colleges, 2015b).

- *Specialty*: Area of expertise, upon completion of Residency program and full passage of all licensing and board exams, in which a physician will begin his or her medical practice.
- *Title IX*: Colloquial short-hand for Title IX of the Education Amendments of 1972 which states that ‘No person in the United States shall, on the basis of sex, be excluded from participation, or denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance” (McCarthy & Eckes, 2011, p. 170).
- *Undergraduate Medical Education (UME)*: Often known as medical school (see above), it is the first part of medical education where a student learns the knowledge and skills necessary to earn a DO or MD degree. It is a 4-year post-baccalaureate program accredited by either American Association of Colleges of Osteopathic Medicine (AACOM) for a DO degree or Liaison Committee on Medical Education (LCME) for an MD degree. Usually comprised of two years of classroom training followed by two years of clinical training or rotations (American Medical Association, 2015b).
- *Work/Life Balance*: The moderation of time spent on work or professional obligations and the time spent on personal obligations such as family, religious, volunteer, or leisure activities; it is a unique balance for every person and may change throughout the course of a lifetime.

These terms, while common, are best understood within the context of academic literature and research and will be further explained and explored in Chapter 2.

## **CHAPTER 2: LITERATURE REVIEW**

### **Introduction**

New research is grounded in existing research. This chapter will focus on the historical factors and current cultural issues surrounding the practice of medicine as it intersects with gender and work/life balance issues.

### **Historical Issues**

#### **History of Medical Profession and Practice in United States**

Early medical schools were largely unregulated and informal; classes were taught by practicing physicians on a part-time basis as a way to increase their income (Amin & Eng, 2009; Cooke, Irby, & O'Brien, 2010). As there were no accreditation or licensing standards, the public had no way of knowing the clinical competency of a physician – most of whom had dubious skills. In the early annals of medicine, there were only general practitioners (Cooke et al., 2010; Freeman, 2007). Specialized training after medical school required a physician to travel to Europe (specifically Germany) to learn the latest skills and procedures (Freeman, 2007). This all changed with the *Medical Education in the United States and Canada* report by Abraham Flexner (commonly known as the Flexner Report) in 1910, which exposed the deficiencies of American and Canadian medical education and called for the integration of medical schools into universities as well as the establishment of connections between medical schools and teaching hospitals (Cooke et al., 2010; Quinn, 2011; Vevier, 1987). The effects of the Flexner report are still felt today with regards to entrance standards, accreditation standards, curriculum design, university ties, and faculty requirements (Cooke et al., 2010).

Specialists began to grow in numbers in the 1930s with the formation of specialty examination and certification boards (Cooke et al., 2010) and through the creation of the

American Board of Medical Specialties in 1933 (American Board of Medical Specialties, 2015). However, by the 1940s only 24% of all physicians considered themselves specialists (Freeman, 2007). World War II drastically increased the prestige and number of those pursuing specialties, both in meeting the needs on the battlefield and for returning veterans (Freeman, 2007). General practice physicians – now called family practice, internal medicine, primary care, or pediatric physicians – are considered to be gatekeepers for patient care and a key to increasing good health outcomes while reducing overall health care costs (U.S. Department of Health and Human Services, Council on Graduate Medical Education, 2010). In 1992, the Council on Graduate Medical Education Advisory Committee recommended a 50:50 ratio of general practice and specialty practice physicians (Freeman, 2007; U.S. Department of Health and Human Services, Council on Graduate Medical Education, 1992). In 2010, only 32% of all physicians were primary care physicians and the Council on Medical Education Advisory Committee recommended a more modest increase of primary care physicians to 40% (U.S. Department of Health and Human Services, Council on Graduate Medical Education, 2010). With an overall physician shortage forecasted to continue in the near future, many medical schools are expanding enrollments to meet the increased demands on the American healthcare system (Cooke et al., 2010).

The Association of American Medical Colleges (AAMC) tracks workforce statistics for physicians in the United States. Applicable statistics from the last year (2014) data were available from the Center for Workforce Studies are in Table 1. Active physicians are defined by AAMC as those physicians who have a DO or MD degree, are licensed by a state, and work at least 20 hours a week in direct patient care, administration, medical teaching, research, or other non-patient care activities (Association of American Medical Colleges, Center for

Workforce Studies, 2015). Patient care physicians are those who self-reported to spend a majority of time in direct patient care, regardless of specialty (Association of American Medical Colleges, Center for Workforce Studies, 2015). For both active and patient care physicians, only 7% are DOs, both nationally and in Texas. (Texas is used as a representative sample in all tables.) Accordingly, the percentage of female physicians in Texas mirrors the national percentage of approximately 33% (Association of American Medical Colleges, Center for Workforce Studies, 2015).

Table 1

*Number of Physicians in United States and Texas, 2014*

	Total	MD	DO
<b>Active Physicians in US</b>	<b>846,626</b>	783,982	62,644
<b>Active Physicians in TX</b>	<b>57,498</b>	53,400	4,098
<b>Active Patient Care in US</b>	<b>748,300</b>	691,068	57,232
<b>Active Patient Care in TX</b>	<b>51,429</b>	47,702	3,727
<b>Active Female Physicians in US</b>	<b>281,259</b>		
<b>Active Female Physicians in TX</b>	<b>18,674</b>		

*Note.* Number of active female physicians are not reported with type of degree. Adapted from “2015 State Physician Workforce Data Book” by Association of American Medical College, Center for Workforce Studies, 2015, p. 2-25. Copyright 2015 by the Association of American Medical Colleges.

The AAMC also keeps statistics on the current numbers of medical students and residents as shown in Table 2. In academic year 2014-2015, approximately 77% of students were enrolled in MD programs and 23% in DO programs (Association of American Medical Colleges, Center for Workforce Studies, 2015). In the decade between the 2004-2005 and 2014-2015 academic years, enrollment rates in undergraduate medical education (UME) have grown 33% nationally. This is attributed to a 22% increase for MD schools and a 96% increase for DO schools (Association of American Medical Colleges, Center for Workforce Studies, 2015). Texas is somewhat reflective of national trends as MD and DO enrollments have grown 29% and 85%, respectively (Association of American Medical Colleges, Center for Workforce Studies, 2015).

As of December 31, 2014, there were 117,535 residents and/or fellows, 26% of whom did not complete UME in the United States (Association of American Medical Colleges, Center for Workforce Studies, 2015). Of those graduate medical education (GME) participants who were educated in either the United States or Canada, approximately 52.9% were male and 47.1% were female (Association of American Medical Colleges, 2015d).

Table 2

*Participation in Undergraduate and Graduate Medical Education in 2014*

	Total	MD	DO
<b>UME Enrollment in US</b>	<b>108,494</b>	83,930	24,564
<b>UME Enrollment in TX</b>	<b>7,441</b>	6,514	927
<b>UME Enrollment 10-Year Increase in US</b>	<b>27,165</b>	15,126	12,039
<b>UME Enrollment 10-Year Increase in TX</b>	<b>1,909</b>	1,483	426
<b>US Educated GME in US</b>	<b>87,567</b>	77,445	10,122
<b>US Educated GME in TX</b>	<b>6,145</b>	5,338	807
<b>Female US Educated GME</b>	<b>40,726</b>		

*Note.* The number of female U.S. Educated GME are not reported with type of degree. Adapted from “2015 State Physician Workforce Data Book” by Association of American Medical Colleges, Center for Workforce Studies, 2015, p. 26-45 and “Number of active residents by type of medical school graduation, GME specialty, and gender” Data Set by Association of American Medical Colleges, 2015. Copyright 2015 by the Association of American Medical Colleges.

**Allopathic.** The term ‘allopath’ or ‘allopathic’ originates from the mid-17<sup>th</sup> Century and was used to differentiate MDs from other forms of non-scientific medicine like homeopathy (Quinn, 2011). Since the allopathic philosophy of medicine is the predominant philosophy in the U.S., its history is largely synonymous with the overall history of medicine in the United States. In early America, all doctors – regardless of training – were called MDs (Quinn, 2011). The first U.S. medical school was founded in Philadelphia (as the Medical Department of the University of Pennsylvania) in 1765 by Dr. John Morgan who was formally educated in Edinburgh (Amin & Eng, 2009; Kennedy, 2004). Johns Hopkins Hospital was established in the late 1800s as a partnership between medical education and a hospital, and served as the model by which Flexner

based his report in 1910 (Kennedy, 2004). Early medical schools had few entrance requirements, little laboratory or hands-on training, and were largely unregulated (Quinn, 2011). When entrance into medical practice began to require licensure in the late 1800s, many of these medical sects either amalgamated into allopathic medicine or disappeared (Hruby, 1995). To date, there are 130 medical schools granting an MD degree in the United States (Cooke et al., 2010).

**Osteopathic.** Osteopathic medicine was created by Dr. A. T. Still in 1874 and initially consisted of body manipulation therapy (today called osteopathic manipulative therapy) without using orthodox medical treatments (Quinn, 2011) as Dr. Still believed in the ability of the body to self-regulate and self-heal (Hruby, 1995). Dr. Still began the first school of osteopathic medicine in 1892 with the aim of the institution to enhance the current system of medicine with his manipulation therapy techniques, not to replace it, and to improve the health of patients (Quinn, 2011). As such, osteopathy is both a profession (a distinct occupational pursuit of medicine) and a social movement (a group effort to achieve goals based on a belief system) (Gevitz, 1995). Although it is thought that chiropractic medicine was developed by a friend of a student of Still's and includes many of the same body manipulation techniques as osteopathic manipulation, chiropractic has been and remains a drug-free form of medicine (Slee et al., 2006). By contrast, osteopathic medicine has never been entirely anti-drug (always using drugs for surgery, for example) but instead uses a holistic approach to heal patients, including manipulation, drugs, and surgery (Gevitz, 1995; Quinn, 2011).

As mentioned earlier, the turn of the century was marked by upheaval, with the rise of state licensure requirements and professional standards for medical education (Quinn, 2011). The Flexner Report was especially critical of osteopathic schools (Gevitz, 1995; Quinn, 2011).

Osteopathic physicians, often blocked by allopathic and other physicians (Gevitz, 1995), were not able to be licensed in all states until 1923 – although many of these licenses were limited well into the 1970's (Quinn, 2011). By 1924, the American Osteopathic Association (AOA) was the sole accrediting agency for all osteopathic schools with full control over curriculum and accreditation requirements (Quinn, 2011). In 1927, the AOA mandated that all approved osteopathic schools teach the complete and full scope of practice – including the use of pharmacological agents for disease prevention and treatment, not just surgical procedures – bringing osteopathic education more in line with allopathic medical education (Gevitz, 1995; Quinn, 2011).

Osteopathic medicine floundered during the mid-20<sup>th</sup> century, almost disappearing completely with all but five osteopathic schools closing (Quinn, 2011). Much of this was predicated by American Medical Association, who called osteopathic medicine ‘cultish’ well until the 1960s and actively fought against equal status of osteopathic physicians (Quinn, 2011). Even after the ‘cult’ label was abandoned, the stereotype of osteopathic physicians was often ‘less than’ that of MDs (Gevitz, 1995). The tide slowly turned; beginning in 1970 osteopathic colleges began to expand and be established across the country which has led to a dramatic increase in osteopathic physicians (Hruby, 1995; Quinn, 2011). Many additional barriers against osteopathic physicians fell in the 1970s, including but not limited to, the allowance of full licensure status in all states and the ability to join the United States armed services medical corps (Gevitz, 1995).

### **History of Women in Medical Profession and Practice in United States**

Women are considered to be natural collaborators who excel at team-based work and are less focused on power than men, all of which makes them a perfect fit for the practice of

medicine (Grant & Carter, 2004; Humphrey & Smith, 2010). Beginning in colonial America, most women were relegated to midwifery (Grant & Carter, 2004), and while they may have treated other illnesses and maladies, were not allowed to practice medicine. However, many medical school opportunities for women (and other minorities, specifically African-Americans) were hindered by the rise in standards advocated by the Flexner Report; Flexner's recommendations closed many schools that admitted women and African-Americans prior to 1910 (Bowman, 2002; Cooke et al., 2010; Vevier, 1987). Although there was a temporary surge in female enrollment during World War I, women did not actively seek out the medical profession, and those who did found resistance to female doctors from the public (Grant & Carter, 2004; Quinn, 2011). For most of the mid-20<sup>th</sup> century, a woman's role in medical education was to support her husband, not to participate (Coombs, 1998; Quinn, 2011). However, women began to enter medical education in earnest in the 1970s (Grant & Carter, 2004) and currently have almost reached parity with men. In fact, in 1994 women outnumbered men in the Yale School of Medicine for the first time, representing 56% of the incoming class (Coombs, 1998).

**Allopathic.** The first woman to receive a formal medical degree in the United States was Elizabeth Blackwell in 1849 from the Geneva Medical School of Western New York (American Medical Association, 2015c; Quinn, 2011). Dr. Blackwell was initially refused admission to medical school and studied independently; after graduation, she further studied in London, only to return to the United States and be denied any hospital or clinic positions (Coombs, 1998; Grant & Carter, 2004). Throughout the 19<sup>th</sup> century, opportunities for women to attend medical school and complete any kind of graduate medical education were scarce. Although about 19 female-only medical schools were developed during this time, all but one was closed by 1918

(Quinn, 2011). Women who did receive allopathic medical education often faced hardships and were not allowed to practice, obtain internships, or hospital assignments (Grant & Carter, 2004; Quinn, 2011). Female milestones in medicine were few and far between until the mid-20<sup>th</sup> century (American Medical Association, 2015c).

Many women did not enter the profession until the middle of the 20<sup>th</sup> century. Rates of female enrollment in allopathic medical schools have increased significantly since the 1960's. (See Figure 1 for more complete breakdown of female enrollment in medical education over time.) Several contributing factors led to the rise in female enrollment, the most significant being Title IX, which will be discussed in the following section.

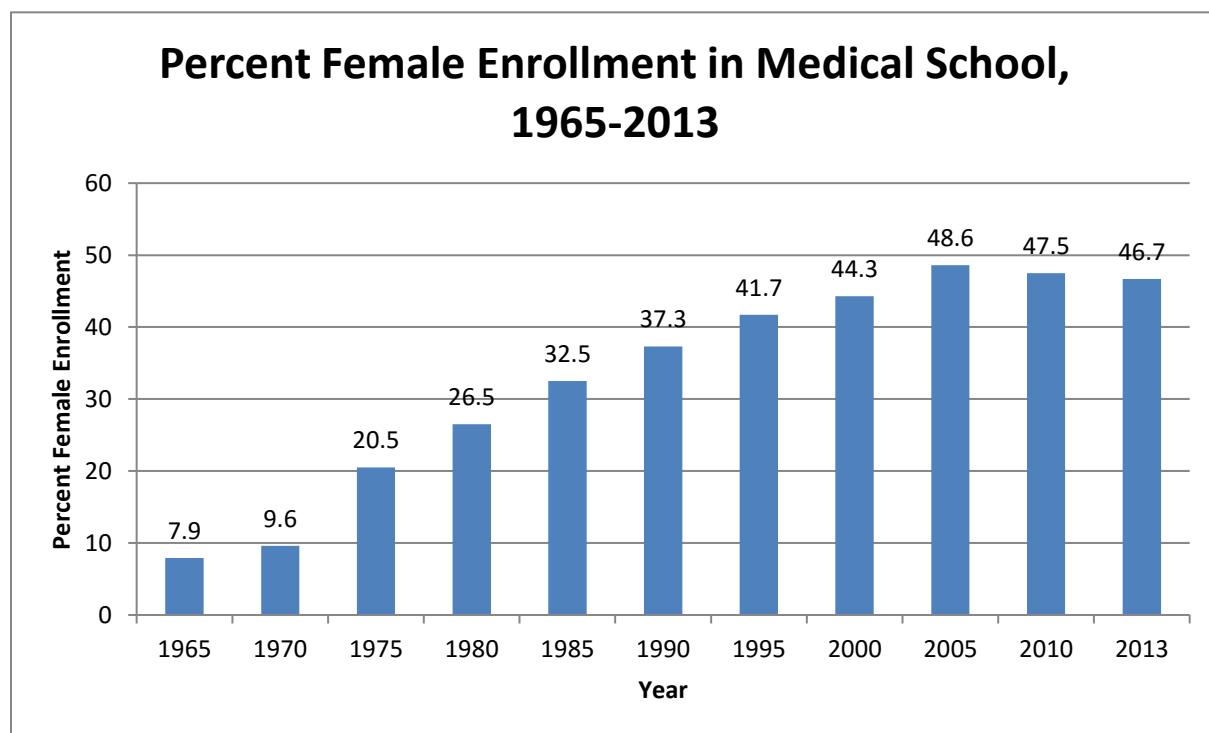


Figure 1: Percent Female Enrollment in Medical School, 1965-2013. Source: Association of American Medical Colleges, 2015, *Medical students, selected years, 1965-2013*.

**Osteopathic.** Unlike allopathic medical schools, women have been welcome from the very beginning in osteopathic medical education. The first class of osteopathic students included six women; five years later in 1897, there were roughly 100 women enrolled (Quinn, 2011).

Women were also heavily involved in osteopathic professional organizations, journals, and administration at osteopathic colleges (Quinn, 2011). The high proportion of women in osteopathic medical programs continued until the late 1930s, when female enrollment dropped dramatically. From there on, the enrollment numbers and opportunities for women in osteopathic medical schools echoed that of their allopathic counterparts (Quinn, 2011).

### **Legal Issues for Women**

The 20<sup>th</sup> century ushered in a previously unprecedeted expansion of legal rights for women. Although this research is not about the legal rights and protections of women, these legal precedents create context for the current environment in which women live, learn, and work (Jones, 2012). Various pieces of legislation were passed to promote equity among citizens, including but not limited to:

- *Ratification of the 19<sup>th</sup> Amendment, 1920:* Formal amendment to the United States Constitution which guarantees women the right to vote.
- *Equal Pay Act, 1963:* Law which makes it illegal to pay different wages to men and women if they perform equal work in the same workplace as well as guarantees protection against retaliation for complaints of discrimination (U.S. Equal Employment Opportunity Commission, 2015).
- *Civil Rights Act of 1964:* Law which, among other things, guarantees protection against employment discrimination on the basis of race, color, religion, sex, or national origin as well as guarantees protection from retaliation for complaints of discrimination (U.S. Equal Employment Opportunity Commission, 2015).
- *Title IX of the Educational Amendments of 1972:* An amendment to Title VII of the Civil Rights Act of 1964 which prohibits discrimination, exclusion of participation, or

denial of benefits on the basis of sex for all institutions receiving federal financial aid. (McCarthy & Eckes, 2011).

- *Pregnancy Discrimination Act, 1978*: An amendment to Title VII of the Civil Rights Act of 1964 which prohibits discrimination on the basis of pregnancy, childbirth, or related medical conditions (U.S. Equal Employment Opportunity Commission, 2015).
- *Family Medical Leave Act (FMLA), 1993*: Act which requires all public agencies and private employers who employ 50 or more people to allow employees up to 12 weeks unpaid, job-protected leave for specific family and medical situations, including childbirth. To be eligible, employees must have been employed for at least 1 year and worked 1,250 hours during that year (Jones, 2012; U.S. Department of Labor, Wage and Hour Division, 2015).
- *Lilly Ledbetter Fair Pay Act, 2009*: Act which reinstates prior law and requires that discrimination claims on the basis of sex, race, national origin, age, religion, and disability accrue from the first discriminatory paycheck (National Women's Law Center, 2015).

These federal acts are important to understanding the legal protections for women, particularly in employment and participation in civic life. Most relevant to this research is the impact of increased educational access by way of Title IX on medical education and opportunity.

**Access to education and Title IX.** Women were historically denied access to higher education in the United States. Harvard College was the first institution of higher education founded in the United States in 1636, yet Harvard did not become co-educational until 1975 (Harvard University, 2015). Harvard was not alone in only admitting men – and usually white men at that – as most of Harvard's peer institutions were also single-sex institutions until the

mid-20<sup>th</sup> century. It was actually Oberlin College in Ohio that was the first institution to admit women to baccalaureate courses in 1837 (Geiger, 2011; Goldin, 1992; Oberlin College, 2015). The establishment of ‘normal schools’ or ‘teachers colleges’, which were separate from established colleges and universities and devoted solely to educating teachers, granted broad access to higher education for women beginning in the 1850s (Geiger, 2011). Private philanthropic donations after the Civil War created some of the best all-women liberal arts colleges in the U.S. such as Smith and Wellesley (Geiger, 2011). Unlike teachers colleges or normal schools, these institutions were designed to rival the best men’s liberal arts colleges at the time.

During early parts of the 20<sup>th</sup> century, largely due to the establishment of normal schools, teachers colleges, and elite women’s colleges, women did come close to achieving parity with men in terms of enrollment in higher education (Goldin, 1992; Goldin et al., 2006). However, the percentage of the male population that attended higher education was also very small; those who matriculated from about 1900 to 1915 represented about 9.5% of men and 8.9% of women in the general population (Goldin, 1992). In addition, women faced a stiff personal penalty for pursuing their education – approximately 50% of them did not marry and if they did marry, they did not have children (Goldin, 1992). There were few opportunities for women to combine the two parts of life (Goldin, 1992).

The Great Depression, World War II, and the corresponding the GI Bill again dramatically changed higher education in the middle of the 20<sup>th</sup> century. The GI Bill, in particular, flooded colleges and universities after World War II with returning veterans wanting to cash in on their benefits. Most of these veterans were men (Goldin, 1992), although the GI Bill did not restrict benefits due to gender or race (Mumper, Gladiuex, King, & Corrigan, 2011).

Because of this massive influx of students, the gender gap between men and women became the largest in the modern era with men outnumbering women 2 to 1 (Goldin, 1992; National Center for Education Statistics, 2015).

The most influential piece of legislation affecting women's access to education was the passage of Title IX of the Education Amendments of 1972. Title IX states that "No person in the United States shall, on the basis of sex, be excluded from participation, or denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance" (McCarthy & Eckes, 2011, p. 170). Title IX removed barriers of educational access, especially in nontraditional fields (Jones, 2012) like science and medicine. This was particularly relevant to the admission of women to medical programs, as women could no longer be denied solely on the basis of their sex (Goldin & Katz, 2000). Combined with the growing legal protections within the workplace, Title IX heavily contributed to the escalating numbers of women enrolled in graduate and professional education (Blair-Loy, 2003).

**Access to contraception.** Of the many other social changes in the mid-20<sup>th</sup> century regarding women's rights and equality, the availability of oral contraceptives had a significant impact on higher education access and therefore on women pursuing medicine. Oral contraception in the form of the birth control pill was approved by the FDA in 1960 and became widely available for most single women by the early 1970s (Goldin & Katz, 2000). The pill, as it is often referred, gave women a reliable method for avoiding pregnancy and thereby lowered the social "costs of long-duration professional education for women" (Goldin & Katz, 2000, p. ii). The availability of reliable and safe oral contraceptives gave yet another incentive for women to pursue academics and professional careers.

**Sexual discrimination, harassment, and violence laws.** Title IX is also used to enforce

anti-sexual discrimination and harassment policies within educational environments, including quid pro quo harassment and the creation or existence of a hostile environment (U.S. Department of Education, Office for Civil Rights, 2015). Even with current laws and policies that prohibit such behavior, women in medicine report that gender discrimination and sexual harassment are commonplace and are more likely than men to report a hostile work environment (Humphrey & Smith, 2010). The opposite is true for men who are in underrepresented male specialties such as obstetrics-gynecology and pediatrics (Humphrey & Smith, 2010). This aligns with McLaughlin, Uggen, and Blackstone's (2012) research regarding sexual harassment as a function of power and gender politics within the workplace. Particularly McLaughlin, et al. (2012) found that women, regardless of authority rank, were at higher risk of workplace harassment and often women in authority positions were harassed as a way to equalize power and control.

**Labor policies.** Most of the aforementioned policies provided broad legal protections for women in education and in the workplace. The Fair-Labor Standards Act (FLSA) of 1938, which distinguished between hourly workers (typically unskilled workers eligible for overtime pay and protections) and salaried workers (typically professional workers who are not eligible for overtime pay and protection), led to an economic incentive for employers to hire fewer salaried workers and, in turn, expect them to work longer hours (Blair-Loy, 2003, p. 21). FLSA was instrumental in codifying the typical American work week of 40 hours, and creating a one-size-fits-all work standard that held for most of the 20<sup>th</sup> century (Christensen & Schneider, 2010). The Family Medical Leave Act (FMLA), passed in 1993, allowed for up to 12 weeks of unpaid leave with job protection for employees caring for the birth or adoption of a child or an ill child, spouse, or parent (Perry-Jenkins, 2012). While FMLA guarantees job and salary protection, it is unpaid leave, thereby creating a financial hardship for most families, and it does

not protect work schedules or arrangements (Perry-Jenkins, 2012). Outside of FSLA and FMLA, most employers and companies are free to determine their own labor policies and directives (Christensen & Schneider, 2010; Wharton, 2013).

While the aforementioned legal protections and educational options opened many previously closed doors to women, the male breadwinner model of professional careers presented obligations regarding expected high levels of commitment to and continuity of work (Blair-Loy, 2003; Stone & Hernandez, 2012). The cultural expectations for medicine, women, and work/life balance will be discussed in the following section.

### **Cultural Expectations**

#### **Medicine**

The skills, ethics, values, and knowledge of medicine is transmitted from elder physicians to neophyte students (Reed & Wright, 2010). After all, “learning medicine under the tutelage of a master clinician has enormous import to the habits of mind, clinical reflexes, diagnostic acumen, or procedural techniques that more junior colleagues learn and ultimately perfect” (Humphrey, 2010, p. 36). This is an enormous amount of responsibility and power placed on physicians to train and work with the next generation of doctors and provides considerable insight about how medical culture becomes so entrenched in the profession. The indoctrination of the culture of medicine begins right from the start of medical school and is firmly cemented during residency, when doctors have their first chance to teach skills and knowledge to more inexperienced students (Cooke et al., 2010). Medical education itself is a sophisticated intermingling of the science of medicine with the art of education, all while keeping the welfare of people at the core (Tan, Sutton, & Dornan, 2011). Cooke et al. (2010) sum up the purpose of medical education as the fulfillment of a societal requirement to produce caring, compassionate

physicians with a high-level of knowledge who continually develop their expertise and skills, interact and engage with their professional and local communities, and work together to improve health care. It is with this purpose that the process from medical education to practice and culture of medicine are researched and viewed.

**Undergraduate medical education (UME).** Often called medical school, undergraduate medical education is a four-year process which provides a broad clinical foundation (Freeman, 2007) centered on science, patient autonomy, public health, and professionalism (Smith, 2010). Cooke et al. (2010) describe the goal of undergraduate medical education as “equip[ping] physicians in training with the foundational knowledge, skills, and professional values to relentlessly pursue excellence in the practice of medicine within their chosen specialty” (p. 75). The focus is on learning, with classes in both small and large group formats and with regular assessments of competencies (Isba & Boor, 2011).

Medical school has traditionally followed the ideal that mastery of factual knowledge comes before experiential learning (Cooke et al., 2010). Therefore, most schools are set up in two two-year blocks. The first two years are primarily focused on the hard sciences with some emphasis on communication and clinical skills, typically delivered in a classroom setting; the last two years are spent on clinical clerkships or rotations which are designed to give students a basic understanding of clinical knowledge in a variety of specialties as well as determine which specialty is of particular interest for a residency program and future career (Dornan, Mann, Scherpbier, & Spencer, 2011; Freeman, 2007). Due to national accreditation requirements, all third year students must complete the following rotations in 4 to 12 week blocks: internal medicine, surgery, pediatrics, obstetrics/gynecology, psychiatry, family practice, and neurology (Cooke et al., 2010; Freeman, 2007). Most students are required to select their specialty by the

end of the third year and, while still rotating and improving clinical skills (Cooke et al., 2010), spend most of the fourth year applying to residency programs, collecting letters of recommendation, and interviewing – all of which makes for a very intense and stressful end of medical school (Freeman, 2007).

Medical school can be full of emotional peaks and valleys as the fulfillment of a lifelong dream of becoming a doctor collides with the enormity of what must be learned to achieve that goal (Coombs, 1998; Dornan et al., 2011). Compounding this effect are the intense experiences of medical school. In the course of their four years of medical school, students will spend thousands of hours studying, take hundreds of quizzes and exams, make chart notations on over 300 clinical cases requiring hospitalization, complete about 100 comprehensive physical examinations, assist with the delivery of about 20 babies, and experience first-hand the death of a patient (Cooke et al., 2010). As Cooke et al. (2010) conclude, “the transformative power of these experiences must not be underestimated” (p. 66).

Although most students find equilibrium, it is not uncommon to see a rise in physical and emotional health issues for medical students (Coombs, 1998). Women experience the strains of medical education in slightly different ways than their male colleagues through subtle and overt sexism and harassment, bearing more of the weight of home and family responsibilities, and having fewer female physicians in medical academia as role models (Coombs, 1998).

**Curriculum.** Curriculum is more than a list of educational content in a syllabus, it is any educational event or activity in which a student observes or participates (Coles, 2011). A long carry-over of the structures put in place by the Flexner report is the lack of flexibility with regards to teaching methods or student progression through a program (Amin & Eng, 2009; Cooke et al., 2010). Most schools’ curriculum for the first two years follows a discipline-based,

organ- or system-based, or problem- or case-based method for instruction (Cooke et al., 2010).

The medical disciplines model was recommended by Flexner and has a focus on the specific science disciplines (such as physiology and biochemistry) in order to develop a mastery of scientific reasoning which will be used as the base for future practice (Cooke et al., 2010). This model has largely been abandoned due to a lack of coordination between coursework and clinical work, nor is it sequential to allow for developmental learning (Cooke et al., 2010). The reigning curriculum model is an organ system with integrated medical sciences model, which organizes learning by each organ system (such as cardiovascular or musculoskeletal systems) through the lens of anatomy, physiology, epidemiology, and other sciences (Cooke et al., 2010). The benefit of the organ- or system-based model is the integration of knowledge within a clinical orientation (Amin & Eng, 2009; Cooke et al., 2010). Problem- or case-based learning is not so much a separate curriculum model, but a supplementary learning style often incorporated within the curriculum that encourages students to engage in self-directed and clinically based learning (Cooke et al., 2010).

Cooke et al. (2010) assert that students, as new professionals, adapt and acculturate to the dominant values of the surrounding environment. Therefore, it is essential to not underestimate the discordance that occurs between the espoused values of an institution and the enacted values of the administration, faculty, or clinicians (Cooke et al., 2010). The enacted values are the hidden curriculum (Cooke et al., 2010; Mann et al., 2011), or what is practiced rather than preached. Smith (2010) is quick to point out that the transmission of the hidden curriculum is done by literally all physicians a medical student encounters – the good and the bad, those inside and outside the institution. The effect of the hidden curriculum is so important that Humphrey and Smith (2010) believe that positive mentoring relationships are essential to helping students

and residents navigate medical school, residency, and practice. Although there have been increases in the formal teaching of such topics as ethics, medical values, empathy, and professional standards and expectations during medical school, most professional development is still transmitted through the hidden curriculum (Cooke et al., 2010).

**Mentoring.** Mentoring has long been a traditional part of medicine at every stage of medical education and in the development of academic medical faculty (Humphrey, 2010). Smith (2010) asserts that the development of the professional physician is one of the primary goals of medical education through a combination of classical teaching, mentoring, and role-modeling. Smith's definition of mentoring is that of "an experienced, trusted, professional colleague offer[ing] personal expertise and advice to facilitate a less experienced person's professional growth and success" (p. 21). Specific to medicine, mentoring may include discussion of clinical techniques or cases as well as personal struggles and professional plans (Launer, 2006). Launer (2006) further asserts that doctors need intellectual and emotional support in order to continually develop their knowledge, increase professional development, and provide self-care. Drawing on Kohlberg's theory of moral development, Smith (2010) outlines five stages of professional development for physicians, starting with Early Entry (new medical students) and progressing to Mentor (senior physician). (More information about Kohlberg's theory can be found in the succeeding Theoretical section.) Not all physicians reach Mentor status, but those who do have a professional focus that shifts away from themselves and towards others under their charge. In short, mentors derive personal satisfaction from the success of others (Smith, 2010).

Reed and Wright (2010) believe that in order to have a good mentor-mentee fit, similarities such as culture, gender, ethnicity, or specialty interests must exist between both

parties. Because women are underrepresented in positions of academic leadership, Humphrey and Smith (2010) are quick to point out that high-quality mentor support does not have to be found within the same gender as long as both parties are sensitive to the differences of perceptions and priorities between the genders.

**Graduate medical education (GME).** Graduate Medical Education comes after the completion of medical school and focuses on the continued training of the physician in a specific specialty area. Here the focus is on working (Isba & Boor, 2011), using the application of skills and knowledge gleaned in medical school with judgement and discernment for independent practice (Cooke et al., 2010). Although the terms ‘specialty’ and ‘residency’ are sometimes used interchangeably, residency is a three- to seven-year program through which specialty training occurs (Cooke et al., 2010). There are more than 60 specialties and subspecialties, although most students focus on the 20 different specialties offered through the National Resident Matching Program (Freeman, 2007). Many of these subspecialties are further explored in a fellowship, or continued specialized training after the completion of a residency program (Freeman, 2007). For academic year 2013-2014, there were approximately 9,600 accredited residency and fellowship programs in 130 specialty areas with over 120,000 active residents (Accreditation Council for Graduate Medical Education, 2015a).

In 2014, the Accreditation Council for Graduate Medical Education (ACGME) announced a single graduate medical education accreditation system for graduates of allopathic and osteopathic medical schools that will be in full effect by 2020 (Accreditation Council for Graduate Medical Education, 2015b). Previously, osteopathic students went through a separate system set up by the American Association of Colleges of Osteopathic Medicine (AACOM). Whereas previous restrictions kept most MD and DO residency opportunities separated, the new

system greatly increases the residency opportunities for all residents (Accreditation Council for Graduate Medical Education, 2015b), regardless of training.

The process of selecting a specialty is more than choosing a career, it is the choosing and assimilation of a new identity (Freeman, 2007). Therefore, it should not be entered into lightly. Current medical students are also closely examining the work/life balance aspects and long-term financial rewards of specialty selection, and, according to Freeman (2007), shifting interest to those “specialties with more controllable lifestyles and higher incomes relative to the length of training” (p. 28). The long-held ideals of delayed gratification and complete devotion to medicine are slowly fading. Part of this shift is due to the rising age of entering medical students as well as the rise in women who are perusing medicine (Freeman, 2007), as these two groups are more focused on balance of work and family life. For example, surgery is a specialty that holds high prestige yet poor quality of life and is now lacking in students (U.S. Department of Health and Human Services, Council on Graduate Medical Education, 2010); in 1981, 12.1% of all medical students went into general surgery but in 2005, only 4.8% went into general surgery (Freeman, 2007).

At its core, residency training is holistic and devoted to the complete training of a physician, not just one particular skill set or knowledge content area (Cooke et al., 2010). It acts as the stopgap between medical school and unsupervised practice with a focus on practical application of skills in a variety of clinical settings (Cooke et al., 2010). There are still rotations in residency, usually lasting one month, and while most of the time is devoted to patient care, residents also check in with faculty advisors and attend meetings (Cooke et al., 2010). There is a set curriculum for graduate medical education; it is not dependent on the random patient encounters a resident might experience (Cooke et al., 2010). Residents are also often required to

attend conferences and meetings to continue professional and clinical development (Cooke et al., 2010).

Residency itself is an intense training period. Cooke et al. (2010) note the extraordinary circumstances residents encounter on a daily basis, including making critical decisions in conditions of uncertainty, being sought out for advice from patients and families, executing clinical mistakes with bad outcomes, and witnessing the birth and death of patients. The hours are long and the resources are few (Cooke et al., 2010) which provides excellent training of what will be expected in practice (Coombs, 1998). It was not until 2004 that a cap of 80 hours of work per week was put in place for residents, and even today there are concerns that the working hour limit does not allow for the proper amount of education and training necessary to complete a residency program (Cooke et al., 2010). Residents also train and teach medical students on top of their clinical responsibilities (Coombs, 1998).

**General medical culture and practice.** Medical school and residency are transformational experiences that turn a layperson into a physician (Cooke et al., 2010). Many of those who enter medical school with a clear idea of what it is like to ‘be a doctor’ and ‘practice medicine’ often find that the realities of practice to be quite different (Coombs, 1998). Being a doctor is a different experience than being a trainee, one that requires many roles to be played at once – healer, counselor, scientist, advocate, community leader – all of which require time and dedication (Cooke et al., 2010). After all, the common characteristics of perseverance, dedication, and intelligence that draw people to medicine, allow them to successfully complete medical school, and enter into practice can also lead to massive amounts of stress and emotional strain (Allen & Bowman, 2002a). It is not surprising that Smith (2010) sees burnout as one of the true threats to the profession of medicine, often fueled by overwork, emotional exhaustion,

feelings of isolation or depersonalization, loss of control and autonomy, lack of proper balance, and a diminishing sense of personal accomplishment. Shanafelt et al. (2012) conducted a nationwide survey of physicians in all specialty fields and found that 45.8% reported experiencing at least one symptom of burnout, with the highest specialty fields being those in front-line care such as emergency medicine, family practice, and internal medicine. Although burnout can be found all along the lifespan of a physician, it is most often seen in the end of the medical education process or early in professional practice (Smith, 2010). Low measures of burnout, specifically emotional resilience and a sense of personal accomplishment, are strong predictors for career satisfaction (Keeton, Fenner, Johnson, & Haward, 2007, p. 953). Stress, fatigue, burnout or other forms of emotional or mental distress not only negatively affect the physician, but the level of care they are able to provide to their patients (Wallace, Lemaire, & Ghali, 2009).

Medical ethics, rooted in the works of Plato and Aristotle, were codified by John Gregory and Thomas Percival in the late 18<sup>th</sup> Century to address issues of medical professionalism (Chervenak, McCullough, & Brent, 2013). From these foundational works, four virtues were identified as foundational to the profession of medicine: self-effacement, self-sacrifice, compassion, and integrity (Chervanak & McCullough, 2001). The aforementioned virtues are tenants of the profession, reinforced by the implicit and explicit curriculum taught in medical school and residency as well as in the general culture of medicine, which is moving toward a patient centered direction (Goldie, 2000). Although Chervanak and McCullough define self-sacrifice as “the physician should be willing to take *reasonable* risks to health, income, and job security when required to do so to meet the needs of patients” (2001, emphasis added), it is an individual decision within each context to determine what is reasonable. To that end, female

physicians spend more time with patients and use more patient-centered communication than male physicians, leading to greater time pressure and stress for female physicians (Roter & Hall, 2004). Women also face issues of isolation due to underrepresentation in medical leadership roles and within certain specialties (Humphrey & Smith, 2010). Women are also at a higher risk for gender discrimination and sexual harassment in the workplace (Coombs, 1998; Freeman, 2007). Further discussion issues related to gender and work, particularly as a physician, is discussed more in depth in the following section.

Just because a physician begins private practice does not mean their education or development is finished. Slotnick (2001) states there is a continuum of identity development which occurs from medical school through practice as doctors train, learn, and mature in their profession. Additionally, physicians are often required by licensure or board standards to complete ongoing continuing medical education. The profession itself, where knowledge and skills change at the speed of light, compels physicians to regularly continue their education and clinical skills (Mann et al., 2011).

## **Gender**

From an economic perspective, the traditional gendered division of labor, with men who specialized in paid work and women who specialized in unpaid work, was seen as maximizing household utility (Sayer, 2007). These cultural norms were created slowly by society, and over time, become so ingrained that other alternatives were difficult to imagine (Blair-Loy, 2003). However, as dual-earner couples and the notion of two-working-parent households have become the norm in the 21<sup>st</sup> century with close to 80% of all married couples in the United States holding dual employment, gender roles are changing and creating new challenges for both men and women in managing work and personal life (Aumann & Galinsky, 2012). The advancement of

women into the workforce, combined with the desires of men to more fully participate in family life, have rendered the traditional model of a completely career-centered male breadwinner supported by a completely domestic-centered wife somewhat obsolete (Epstein, Seron, Oglensky, & Saute, 1999).

Just because men and women participate in the workforce in almost equal numbers does not mean there are not gendered differences in the workplace. Treas and Hilgeman (2007) discovered that men's preferences for work time are heavily influenced by job conditions and financial considerations while women's preferences for work time are heavily influenced by family. "Men may give lip service to family time," Treas and Hilgeman write, "but preferences for family time and work time confirm that American working women give more serious thought to balancing their commitment to both spheres" (2007, p. 104). Accordingly, Epstein, et.al. (1999) assert that a "vocabulary of sacrifice" (p. 96) is unfairly applied to women, not men, who attempt to meet family and work responsibilities with equal success. Stone (2007) agrees, noting that although there is plenty of family-friendly rhetoric, the workforce can be a hostile and chilly place for working parents, especially mothers. Additionally, Clow and Ricciardelli (2011) found that working women were perceived to gain warmth but lose competence when they became parents, but men were perceived to gain warmth and maintain, not lose, competence. As competence ratings are heavily influential on hiring, promotion, and training opportunities, these perceptions may place women at risk for workplace discrimination (Clow & Ricciardelli, 2011).

**Parental and caregiving norms.** Women still carry the majority share of child-rearing and domestic responsibilities. Blair-Loy states this is due to long held cultural norms that "it is the lived experience, normatively upheld by the rest of society, of caring for children that creates the bonds and feelings we know as 'mother nature'" (2003, p. 83). Aumann and Galinsky (2012)

report that while men have greatly increased their time spent on child caring responsibilities in the last 30 years, these numbers are still less than the amount of time spent by women – 3 hours per day for men versus 4 hours per day for women with children under the age of 13 in 2008. Mitchell, Bowman, and Frank (2002) found that female physicians worked 22 hours per week more than male physicians when combining professional and domestic responsibilities – including women who worked part-time professionally. Unlike other tasks, effective parenting requires parental input in the moment and cannot be put off or abandoned all together (Sayer, 2007). Stone (2007) writes about the additional pressures put on parents, specifically mothers, to spend more intensive and developmental time with their children – an ideal that has increased in recent years and is perpetuated by a small, but loud, group of child-care experts. Although having a child is not mandatory for women, cultural expectations are so high that those who don't have children may feel discriminated against (Allen & Bowman, 2002c). Additionally, care for family elders, like child care, is still primarily seen as a woman's responsibility (Aumann & Galinsky, 2012), although the time commitment required for elder care is a fraction of the time commitment required for children (Carr, et al, 1998). Therefore, women are more likely than not the primary care giver for all members of a family.

## **Work/Life Balance**

How one balances responsibilities and time is inevitably a personal decision. Time, after all, is a precious commodity like money (Epstein, Seron, Oglensky, & Saute, 1999) that raises serious discussion regarding its allocation and usage (van der Lippe & Peters, 2007). However, time differs from money in that time is finite and cannot be expanded (van der Lippe & Peters, 2007). As Bianchi and Wight (2010) note, time is a “zero-sum game” (p. 19) because if time is given to one activity or responsibility, it is gone and cannot be given to another. Their analysis

of the American Time Use Survey found that in couples with a husband working full time, 68% of the mothers also worked either part or full time. Couples where both partners work extremely long hours (50+ per week) make up only about 3% of the studied population in the Time Use Survey, but tend to be older, highly educated, occupy prestigious jobs, and are at a more advanced stage in their career. Bianchi and Wight's (2010) final analysis of all the data revealed that parents give up time spent on leisure, sleep, children, or their spouse in order to increase their time on paid-employment. Data from Lambert (2012) suggests that men and women prefer to work more hours for more pay rather than less hours for less pay, giving credence to Bianchi and Wight's work. Stone (2007) found that for those who work part-time, this usually correlates to around 30-40 hours a week – down from 60-70 hours a week for full-time, high-prestige professional positions. Coombs (1998) reports that 92% of married female physicians have an employed husband but only 45% of married male physicians have an employed wife, yet Allen and Bowman (2002b) report that fewer female physicians are married than male physicians (75% and 89%, respectively).

Most working parents develop strategies of multi-tasking to create more balance and management over their lives (Offer & Schneider, 2010; Sayer, 2007). Offer and Schneider (2012) go on to point out that although both male and female parents multitask at home more than work and report feeling more productive for doing so, feelings of frustration and stress are found only in mothers. “Multitasking may help mothers manage the demands of work and home by getting more things done... but it does not relieve them of the physical and psychological stress associated with the double burden” (Offer & Schnieder, 2012, p. 56). This correlates with Blair-Loy (2003, p. 4), who asserts that work-family balance is less of an equilibrium between

work and family tasks and more of a compromise between valued goals and the neglect of relationships with family or coworkers.

Regardless of how much multi-tasking is done, for many, there is still an inherent tension between work and family. Female physicians report their biggest stressor as finding the balance between career and family (Allen & Bowman, 2002a). Treas and Hilgeman (2007) explain that society and media – who claim that women who engage in paid work have insufficient time to meet family obligations and needs – and employers – who claim that the demands of family cause distractions from work and compromise productivity – are almost always at odds. Even the use of technology can be both part of the solution and the problem as technology allows work from anywhere, but then demands that work be done from anywhere (Epstein, Seron, Oglensky, & Saute, 1999). This is especially true for employees who are part-time (Stone, 2007).

**Opting out and mommy wars.** Lisa Belkin wrote a New York Times article in 2003 entitled ‘The Opt-Out Revolution’ which discussed a cohort of highly educated women who were voluntarily choosing to leave the workforce in order to stay home and raise children and claimed that this was a new trend for highly educated, professional women. It was, for the most part, an optimistic look at what it meant for privileged women to voluntarily leave work for family in 2003. While Belkin’s article is not academic research, the article did coin the phrase ‘opting out’ and is seen by many as a culminating portrait of the phenomenon (Kuperberg & Stone, 2008; Stone, 2007). Stone and Hernandez (2012) go further to state that “‘opting out’ is a media-created and media-driven phenomenon” (p. 40), since close to 84% of all college-educated women in the 30-54 demographic are in the workforce (Stone, 2007). That being said, a renewed focus on work/life balance for women was sparked from this one article.

Hewlett (2010) set out to check on Belkin’s assertions of opting out, and her data

concluded that no, women were not overwhelmingly opting out of the workforce. Hewlett found that although 37% of highly qualified women do leave their careers, they do so for an average of 2.2 years before returning and likely have financial and social resources to allow for a break (2010). Instead, Hewlett found it more likely that women reduce work hours and take a less ambitious career path in order to balance work and family obligations. Stone and Hernandez call those who step back instead of opting out as taking the ‘mommy track’ (2012). Those who do opt out, even for a little while, face an average 18% reduction of their earning power for doing so and may face permanent stigmas for the gap in work history (Epstein, Seron, Oglensky, & Saute, 1999; Hewlett, 2010). Stone (2007) writes that interruptions in work experience are a contributing factor to the continued wage gap and lack of women in leadership positions. A study of female lawyers by Epstein, et al. (1999) found that many of the negative stigmas associated with a reduction in work hours, or part-time work, was related to antipathy from leadership within the law firm to the multiple roles which women perform. Furthermore, Epstein et al. (1999) discovered that many firms had both explicit and implicit policies against advancement for those who worked part-time. Therefore, women who take the mommy track or opt out reduce the impact of women’s leadership and influence at high levels within organizations (Jones, 2012) create a self-fulfilling prophecy of limiting opportunities for women.

Jones (2012) took a different track and argued that the idea of ‘opting out’ as specifically used by Belkin is creating a new “mommy wars” (p. 10) within society which dictates that women must choose between being career women who wish to be like men within the workforce or being women who solely concentrated on maternal and domestic issues. Jones goes on to question if opting-out is really a choice or if women are being “pushed out because of workplace norms that are hostile to workers and families” (p. 17), a question shared by Hewlett (2010) and

Kuperberg and Stone (2008). Stone and Hernandez (2012) also mention the use of choice rhetoric surrounding opting out, ultimately concluding that for most women the decision to quit working was a struggle instead of an easy choice or option. Stone's interviews of women who left careers also describe a choice gap, as it was not the struggle to balance that was applauded by others, but the decision to leave their careers (2007). Although motherhood and family responsibilities are a contributing factor to opting out, Epstein et al. (1999) found that many women have additional discontentment in the workplace, such as conflicting moral and philosophical issues, not solely work/life balance challenges. Despite the variety of factors that contribute to women leaving the work force, these factors tend to be mutually reinforcing which strengthens the resolve to leave (Stone, 2007).

Furthermore, Stone and Hernandez (2012) found that the use of "choice rhetoric" (p. 39) by women when describing the decision to quit working was inconsistent with their factual circumstances but congruent with the privileges of their class and race. Hewlett (2010) and Jones (2012) also share the conclusion that most of the professional women who opt out are of a race and social class than enables them greater access to resources, which in turn does not make the option of leaving the workforce viable for all women. These women are usually from salaried positions and are not primarily responsible for their household's income (Lambert, 2012); in fact, they are often married or partnered with other professionals (Stone, 2007). When Stone and Hernandez (2012) examined media stories surrounding the opting out phenomenon, the overwhelming demographic of women who were opting out were white, married with children, college-educated, and formerly held professional or managerial jobs. Although these women represent a small portion of all women, they are seen as "cultural arbiters, defining the parameters of acceptability in work and family roles for all women" (Stone, 2007, p. 8), and

therefore heavily influence the public perceptions of what it means to be a professional and a mother.

Belkin's article was revisited by Warner in 2013, painting a much darker picture of the phenomenon of women who at one time opted out of the workforce and now want back in but cannot quite seem to make it due to a variety of circumstances. Warner's thoughts, like Belkin's a decade before, are often echoed in contemporary blog posts, magazine and newspaper articles, and academic research. Most relevant to this research is the fact that neither Belkin's nor Warner's articles mention women who work as physicians. In fact, most opting out research is centered on women in most high profile careers which often require graduate education – law, marketing, high finance – but not medicine. Hewlett's research of women who opt out included some physicians, but of those, 70% cite enjoyment and satisfaction from their careers as an important reason to return and is the highest for any profession mentioned in Hewlett's research (2010). Stone (2007) also interviewed physicians, but did not spend much time on their narrative other than to say these women wanted to return to medical practice at some point in the future.

**Mentoring and female role models.** Mentoring is commonly understood as support and guidance offered by a more experienced colleague and is both voluntary and confidential (Launer, 2006). As discussed earlier, the ideal of mentoring is already heavily imbedded in medical culture. Aspects of mentoring transcend all disciplines and professions and are equally applicable in boardrooms, clinical settings, classrooms, and laboratories (Humphrey, 2010). While mentoring alone cannot resolve the obstacles that make balancing work and life difficult, Humphrey and Smith (2010) advocate for empathetic and understanding mentors who can provide an invaluable support network, especially for female physicians.

**Career trajectory and access.** Prime child-bearing years and the optimal time to build a

career coincide for women in their late-20's and into their 30's (Bowman & Allen, 2002c; Epstein, Seron, Oglensky, & Saute, 1999). As stated earlier, opting out or stepping back from the workforce is often cited as a reason for the wage gap and for the leaky pipeline of women into leadership roles (Stone, 2007). Valian (2005) states that women experience greater movement into part-time work, decreased opportunities for advancement, lower earnings, fewer national awards and prizes, and are underrepresented in leadership than are men. For physicians, this means that women often reconcile work and family by pursuing a less demanding specialty field that is more compatible with family life (Coombs, 1998). Carr, Gareis, and Barnett (2003) found that more often than not, a physician who works reduced hours is in a primary care specialty than in more prestigious or higher-paid specialty field.

For female physicians, residency is a particularly crucial time as it is most demanding and inflexible time in their careers yet often coincides with appropriate timing for beginning a family (Humphrey & Smith, 2010). Not only does a pregnancy affect the educational and personal needs of the female resident, but it affects all of the residents in the program who will have to cover the pregnant resident's work load (Coombs, 2008; Humphrey & Smith, 2010). Although all residency programs are required to have pregnancy and maternity leave policies in place, Humphrey and Smith (2010) observe that lack of support from peers and faculty are extremely common for residents with childcare responsibilities. Furthermore, those medical specialties with fewer women (such as cardiology or gastroenterology) report that while their male mentors were excellent for career development, those same mentors were a negative influence regarding personal or family issues (Humphrey & Smith, 2010).

Women in academic medicine face similar struggles. A 1998 study found that women in academic medicine taught more hours than men, and spent the same amount of time on research

and patient care as men, but had fewer hours of administrative work per week, had less secretarial support, and published less often (Carr, et al, 1998). Carr et al. (1998) concluded that women had greater dependent responsibilities than men and therefore had greater barriers to an academic career. The current number of women medical school faculty reinforce these findings. In 2014, 38% of all medical faculty were female, but women are not equally distributed within the faculty ranks (Association of American Medical Colleges, 2015a). The number of women and the faculty rank are inversely related: women constituted 21% of full professors but 55% of instructors (Association of American Medical Colleges, 2015a). Buckley, Sanders, Shih, Kallar, and Hampton (2000) found that not only did female medical school faculty progress through faculty ranks slower than male peers, but women understood less about the promotion and tenure criteria and process. Additionally, female medical faculty valued patient care more and leadership positions less than male peers (Buckley, et al, 2000).

### **Role Conflict Among Medicine, Gender, and Work/Life Balance**

In the time since the Industrial Revolution, which began the transition of economic production away from the home, “women have struggled to reconcile the roles, responsibilities, and day-to-day activities of productive and reproductive labor” (Stone & Hernandez, 2012, p. 33). As all social roles have time expectations associated with them, and there are only 24 hours in a day, there will be inevitable conflict between roles (Epstein et al., 1999). Most adults regularly combine and negotiate multiple roles, but due to their social importance, the combination of work and family creates problems for almost everyone at some point and more often for women than men (Wharton, 2012). Mitchell et al. (2002) report that 87% of female physicians experience role conflict compared to 63% of male physicians. Blair-Loy (2003) interprets the role conflict as the struggle between the “schema of work devotion” (p. 1) and the

“the family devotion schema” (p. 2), a struggle which is not solely about economics or responsibilities, but identity. In Blair-Loy’s research, both mothers who opted out and mothers who opted in had guilty feelings over the path not chosen (2003). Both career and parenthood yield strong identity ties, and the struggle between the two is primarily an issue for women, not men (Stone, 2007). For example, when giving advice about selecting a residency program, Freeman (2007) dedicates one entire chapter to discussing work/life balance issues – and addresses it exclusively to women. While work/life balance challenges exist for all working men and women, much of the dilemma is considered a female-only issue.

That being said, it is not all dire news for work/life balance. Wharton (2013) indicates that work-family relations can be positive and negative, with the ability of satisfying roles enhancing rather than detracting from other roles. Keeton, Fenner, Johnson, & Haward (2007, p. 949) conducted a study of physicians and concluded that although physicians, particularly married women with children who have limited control over work hours in specialties such as surgery and obstetrics and gynecology, may struggle with work-life balance yet the majority remain highly satisfied with their careers. In addition, Carr, Gareis, and Barnett (2003, p. 403) found that the fit between hours worked and physician work hour preference, not full- or part-time status, had the greatest impact on job role quality, burnout, marital role quality, job role quality, and overall life satisfaction.

## **Theoretical Underpinnings and Framework**

### **Theoretical Underpinnings**

Several theories inform this research, acting as guidance to understand the literature. The following is a quick description of theories which have been informative and how each is relevant to the research.

- *Kohlberg's Theory of Moral Development.* Kohlberg (1984) developed a theory of moral development that is set within the cognitive and social development of an individual. There are six moral stages which describe the relationship between the self and society's rules and expectation (Kohlberg, 1984). Kohlberg's highest stage is where an individual evaluates the morality of a situation with universal principles of justice such as equality for human rights and dignity for all human beings (1984).  
The significance of Kohlberg's work is that moral development is essential for physicians who will handle complex moral and ethical dilemmas in their training and practice. Furthermore, like Kohlberg's theory, much of the medical profession is based on the male schema of development.
- *Gilligan's Theory of Female Morality and Care.* Kohlberg's theories were developed using mostly the experiences of men; Gilligan built on this work to create a theory for how women develop morally. Gilligan (1977) states that "the development of women's moral judgment appears to proceed from an initial concern with survival, to a focus on goodness, and finally to a principled understanding on nonviolence as the most adequate guide to the just resolution of moral conflicts" (p. 447). There is an underlying ethic of care in Gilligan's work, that the feminine voice of compassion and care are not a moral deficiency but instead a different moral and social understanding (Gilligan, 1977). This is particularly relevant to this research as women physicians will have a different, but no less valid, moral and ethical framework than their male colleagues which can impact their perceptions of work/life balance issues.

- *Feminist Legal Theory*. Feminist legal theory is the dedication of using law and policy to advance women's standings in society and the workforce (Jones, 2012). An emphasis on equal treatment, with little regard for how women are different than men, has created an equal but not necessarily equitable legal framework for women (Jones, 2012). As laws inform policy and convention, this is particularly relevant to understanding how gender-neutral policies do not always create equitable treatment for men and women.
- *Occupational Minority Theory*: A theory developed by Taylor to describe the perceived support available for those who are a minority at the occupational, not workplace, level (Taylor, 2010). Taylor's (2010) research indicates that sex composition of the occupation will determine the minority effects felt by the individual regardless of the sex composition of the immediate working environment. Furthermore, Taylor (2010) finds that the perceived support for the minority is not equal for both sexes; being an occupational minority for men is more beneficial than for women. This is relevant to the amount and type of support available within the practice of medicine, as medicine is a traditionally male-dominated profession regardless of the sex composition of the clinic/hospital/group in which a physician might practice.

## **Theoretical Framework**

Although the above theories provide guidance for understanding the literature and context of the research, they alone are not enough to provide a theoretical framework. As introduced in Chapter 1, Eagly's Social Role Theory and Clark's Work/Family Border Theory provide the firm theoretical foundation for this research.

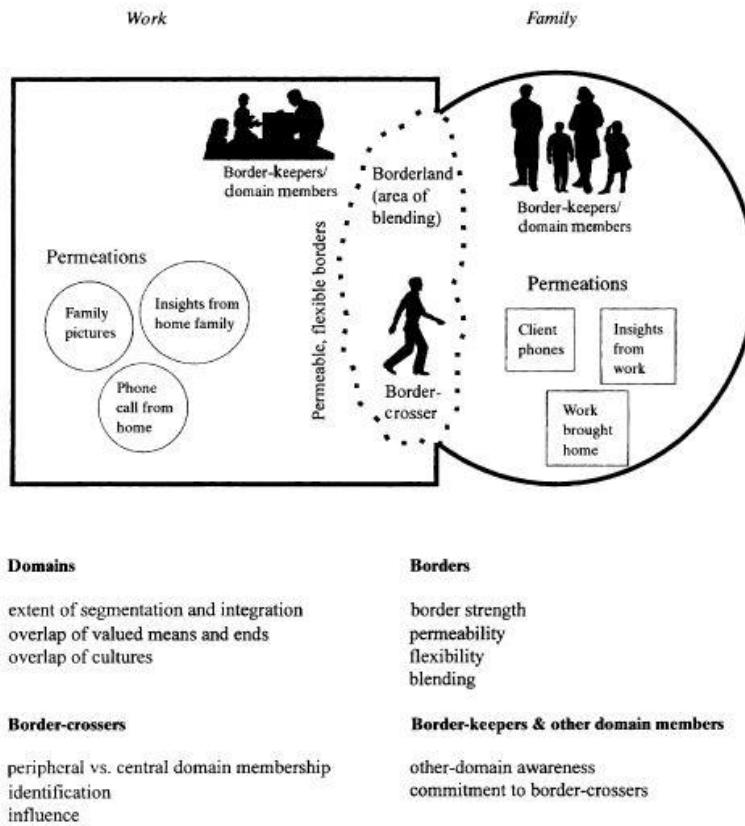
**Social Role Theory.** Social Role Theory (Eagly, 1987) is centered on the “numerous ways in which the social behaviors that differ between the sexes are embedded in social roles – in gender roles as well as in many other roles pertaining to work and family life” (p. 9). Gender roles are defined by Eagly (1987) as shared expectations about what is appropriate behavior which are applied to individuals based on their identified gender. These roles are learned early in childhood and continue throughout the lifespan, which leads women and men to act certain ways, which leads to the development of different skills, which leads to life-long behavior and conduct that reflect the original social role (Clow & Ricciardelli, 2011; Eagly, 1987).

Furthermore, Eagly (1987) believes that these roles affect adult behavior by determining not only what is considered acceptable behavior but what punishments are to be enacted for unacceptable behavior. Gendered social roles are widely accepted within a culture and create deeply-held stereotypes such as the division of labor (domestic or professional) and perceived hierarchies of status and authority between the sexes (Eagly, 1987).

Eagly (1987) asserts that most female social roles are communal (selfless, concerned with others, and a desire for peace with others) while most male social roles are agentic (self-assertion, self-expansion, and the urge to master) and these attributes appear when gender roles are the most salient roles. However, Eagly (1987) is clear to point out that there are other roles, such as employment or professional roles, which can override the saliency of gender roles and create a higher level of shared expectation of behavior regardless of gender. When there is role inconsistency between social roles, the level of inconsistency determines the amount of prejudice with which one may be subjected (Eagly, 2004). Eagly (2004) gives a moderate inconsistency example of a female physician: women moderately match the role of physician through their communal qualities, but might be directed toward certain types of specialties (pediatrics, family

practice) because of these stereotypical communal attributes. For another example, Clow and Ricciardelli's (2011) research indicates that while people have little difficulty reconciling the role of parent and employee for men, they have considerable difficulty reconciling these roles for women. Therefore, gender roles are those which are embedded in culture as the 'default' mode, but other roles impact the significance of gender roles.

**Work/Family Border Theory.** Clark's Work/Family Border Theory "is an attempt to explain the complex interaction between border-crossers and their work and family lives, to predict when conflict will occur, and give a framework for attaining balance" (Clark, 2000, p. 748). Clark posits that work and family operate in different spheres, yet it is up to each individual to create and navigate the borders between the spheres (2000). Figure 2 demonstrates ways in which border-crossers negotiate the transition from one realm to another.



*Figure 2.* Work/family border theory: a pictorial representation and list of central concepts and their characteristics. Source: “Work/family border theory: A new theory of work/family balance” by Sue Campbell Clark, 2000, *Human Relations*, 53 (6), p. 754.

The border-crosser makes the border porous so that work and family inevitably blend at the border and become influential on the other. As such, work and family are always linked by the border-crosser, leading to the “very contradiction of determining and being determined by our work and home environments that makes work/family balance one of the most challenging concepts” (Clark, 2000, p. 748).

All borders are permeable and flexible to some degree and each domain’s border will determine its relationship with another domain (Clark, 2000). By analyzing the different qualities of each border, Clark developed a set of eight propositions to predict when and with whom work/life balance conflicts will arise (2000). Table 3 details these propositions.

Table 3

*Propositions for Clark's Work/Family Border Theory*

Proposition 1a:	When domains are similar, weak borders will facilitate work/family balance.
Proposition 1b:	When domains are different, strong borders will facilitate work/family balance.
Proposition 2:	When the border is strong to protect one domain but is weak for the other domain, individuals will have: <ul style="list-style-type: none"> <li>a) greater work/family balance when they primarily identify with the strongly bordered domain; and</li> <li>b) lesser work/family balance when they primarily identify with the weakly bordered domain.</li> </ul>
Proposition 3:	Border-crossers who are central participants in a domain (i.e. who have identification and influence) will have more control over the borders of that domain than those who are peripheral participants.
Proposition 4:	Border-crossers who are central participants (i.e. who have identification and influence) in both domains will have greater work/family balance than border-crossers who are not central participants in both domains.
Proposition 5:	Border-crossers whose domain members have high other-domain awareness will have higher work/family balance than border-crossers whose domain members have low other-domain awareness.
Proposition 6:	Border-crossers whose domain members show high commitment to them will have higher work/family balance than border-crossers whose domain members have shown low commitment to them.
Proposition 7:	When work and family domains are very different, border-crossers will engage in less across-the-border communication than will border-crossers with similar domains.
Proposition 8:	Frequent supportive communication between border-keepers and border-crossers about other-domain activities will moderate the ill-effects of situations that would otherwise lead to imbalance.

Source: "Work/family border theory: A new theory of work/family balance" by Sue Campbell Clark, 2000, *Human Relations*, 53(6), p. 765.

These propositions can be useful in predicting the points of stress related to work/life balance challenges. For example, following proposition 3, a doctor who is in charge of creating the rotation of on-call physicians may feel more control over the intrusion of being on-call during off hours and therefore less out of balance with regards to work and family boundaries.

Furthermore, these propositions provide guidance for how to make adjustments to borders in order to better fit with other domains. This allows for each individual to determine their specific recipe for work/family balance based on their own preferences (Lambert, Kass, Piotrowski, & Vodanovich, 2006) rather than give generalized assumptions for all people. Clark's theory also allows for each individual to anticipate and manage the inevitable spillover and blending between realms (Lambert, et al, 2006)

**Relevance to research.** Eagly's theory sheds light on how cultural and social gender expectations are imbedded in our culture, how these roles impact behavior, and what happens when roles are not followed. An understanding of social roles and their impact is crucial to this research, as it informs how individuals deal with the conflict between social roles. Clark's theory is formative to this research because it gives an understanding to how and when work/life conflict exists, which can be used to develop possible solutions to work/life balance issues that are encountered by physicians. It is especially applicable due to the fact that it does not provide a universal solution but rather a way to individually achieve work/life balance within infinite combinations of work and life situations. Eagly's and Clark's theories work together to provide a strong theoretical foundation for analyzing the challenges surrounding female physician work/life balance.

## **Summary**

Female physicians encounter several obstacles to achieving work/life balance due to the intersection of their gender and profession. Although women are no longer legally prohibited from pursuing an education and career in medicine, there are social costs for such an endeavor. The societal expectations for physician and female, particularly wife and mother, can often be at

odds. The balance between the two, often presented as work/life balance, can be a challenge for all women at all stages of their medical career.

There is hope that greater awareness and discussion of work/life balance issues will help employers and employees resolve work/life balance tensions. Aumann and Galinsky (2012) found that effective workplaces create less stress in work/life balance, specifically with workers who report a highly effective workplace also report that work has a positive impact on their home lives. Obviously, thousands of physicians manage to achieve some kind of work/life balance in their professional lives. Questions remain about the level of preparedness of issues of work/life balance given during medical education, and what might be better ways to equip physicians, specifically female physicians, for such issues.

## **CHAPTER 3: METHODOLOGY**

### **Research Design and Methodology**

The aim of all research is to base conclusions on an unequivocal set of evidence that has been collected and analyzed fairly (Yin, 2011). This research specifically set out to explore the unique work/life balance challenges facing female physicians and how medical education could combat those challenges. Specifically,

1) How do female physicians manage work/life balance issues?

- What are the specific challenges women face?
- How are these challenges perceived to be different from those of male physicians?
- Have work/life balance issues changed over time?

2) How does medical education and training prepare women for these issues?

- What are realistic programmatic ideas for medical education and training to adopt to prepare physicians for work/life balance challenges?

This complex topic required a multi-faceted investigation; as such, this research study used a mixed method approach. According to Yin (2011), a mixed methods study addresses “a set of research questions that deliberately requires complementary qualitative and quantitative evidence and methods” (p. 291).

Accordingly, this study aimed to answer the research questions using quantitative methods – surveys – and qualitative methods – interviews, document and record analysis, and observations. Using data collected through the two different methodological approaches allowed analysis from more than one perspective and therefore created a more comprehensive picture of the phenomena (Rosnow & Rosenthal, 2008). The quantitative data tells the story of a whole cohort of students, the qualitative data tells the in-depth stories of a few select participants.

## **Quantitative Methodology**

Quantitative methods are those traditionally associated with the collection of numbers and often includes experiments, statistical analysis, or surveys (Yin, 2011). According to Yin, the goal of quantitative research is to create generalized claims for a population based on statistical analysis (2011). This research study used a survey as the primary quantitative method. Merriam (2009) describes survey research as stating “what is”, that is, how variables are distributed across a population or phenomenon” (p. 5). The survey served to create a picture of the whole cohort or class of students and as a springboard to recruit participants for the qualitative portions of the study. Further discussion of the survey and instrumentation is described below in the Data Collection section.

## **Qualitative Methodology**

Qualitative methods are designed to create an “understanding [of] how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences” (Merriam, 2009, p. 5). Merriam (2009) goes on to state that qualitative research is characterized by a “focus on process, understanding and meaning; the researcher is the primary instrument of data collection and analysis; the process is inductive; and the product is richly descriptive” (p. 14). Since this study was primarily concerned with understanding of work/life balance issues for female physicians, it was a natural fit for qualitative methods. This study is basic qualitative research, further defined as research with “data collected through interviews, observations, or document analysis” (Merriam, 2009, p. 23). All three of those data collection methods were used in this study and are further detailed in the succeeding Data Collection section.

## **Validity, Generalizability, and Triangulation**

Yin (2011) defines a valid study as “one that has properly collected and interpreted its data, so that the conclusions accurately reflect and represent the real world (or laboratory) that was studied” (p. 79). Internal validity, or the ability to specifically determine causal relationships, is often done through the use of plausible rival hypotheses or explanations (Rosnow & Rosenthal, 2008; Yin, 2011). In qualitative research, this is achieved by having a skeptical mind that will continually collect data until all other rival explanations have been exhausted (Yin, 2011). The strength of the various data collection points should exhaust other rival explanations.

External validity, or generalizability, is the conjectured causal relationship gleaned in one study and its applicability to another population or setting (Rosnow & Rosenthal, 2008). Since the nature of qualitative research is specific rather than global, generalizability can be difficult. One way to confirm external validity in qualitative or mixed methods research is through the triangulation of data, or the use of multiple methods, data, theories, or investigators to confirm the findings (Merriam, 2009). Put another way, Marshall and Rossman (2006) define it as “the act of bringing more than one source of data to bear on a single point” (p. 202).

The research design of mixed methods in and of itself acted as a strong primary validation mechanism. In addition, various data collection instruments served as a secondary validation mechanism. The observations, interviews, document and record analysis, and overall cohort survey responses all functioned as a reinforcement and check on one another. Since greater validity equates to findings and recommendations that are more substantial and conclusive, the findings of this research provide a rich and descriptive perspective on work/life

balance issues for female physicians as well as offer ways to better mitigate these challenges for women within medical education and training.

### **Selection of Participants**

This study used a purposeful sampling method for the selection of participants. According to Merriam (2009), purposeful sampling is appropriate when the researcher “wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (p. 77). This purposeful sampling is further classified as both unique and convenience sampling (Merriam, 2009). The targeted population is unique in that there are precious few who fit within the selection criteria. The population is also convenient because these physicians were willing to be interviewed at a mutually beneficial time for both parties, either in person or over the phone.

### **Specific Colleges of Medicine**

For this study, two different osteopathic colleges of medicine granting DO degrees were selected from contiguous states in the southwestern United States. At the time of this study, both schools were the only osteopathic institutions within their state and were both public institutions. These institutions were founded as independent institutions in the 1970's before being incorporated into larger public university systems in the late 1970's and early 1980's. The use of two schools within the same geographical area control for larger cultural issues regarding the expectations of women and family life but allowed for differences in training to be explored.

### **Specific Graduating Classes of Participants**

Participants were selected from specific medical school classes or cohorts. Only the graduating classes of 1995, 2000, 2005 and 2010 were used to select participants. This resulted in four cohorts from each school, spread evenly over the time period. When counting time from

matriculation through graduation, this accounts for a 19-year range of influence from 1991-2010. The span of 15 years between graduations allowed women in a variety of life stages and with therefore a variety of perspectives on work/life balance issues to participate. It also exposed changes in medical training and culture over time and allowed these effects be studied.

The range from 1995 and 2010 was chosen for three specific reasons:

1. Impact of Title IX and equal educational opportunity
2. Most likely have completed residency
3. Most likely have not aged out of workforce

A woman graduating medical school in 1995 more than likely graduated undergraduate studies in 1991, graduated high school in 1987, and began primary school in the early 1970s – ensuring that she has always had educational opportunity protection under Title IX. As stated in Chapter 2, upon passage of Title IX in 1972, women could no longer be denied any educational opportunity – including admission to medical programs – simply for being female and was a major factor in the rise of female enrollment in medical programs. A woman graduating medical school in 2010 more than likely has finished her residency and any other additional training and established a practice by spring 2016 when data collection began. It is unlikely that women from any of these cohorts have aged out of the workforce. All participants fit within this criterion; further information about participants of a particular aspect of data collection are detailed in the following section.

### **Data Collection**

This study used a variety of quantitative and qualitative data collection methods. Surveys were conducted first, followed by interviews. Observations and document and records analysis

occurred concurrently throughout the entire data collection process. The entire data collection process lasted approximately 16 weeks.

## **Surveys**

Surveys were used to capture the attitudes of all of the women in the selected medical school classes. This provided context for the other data collection methods and made it more likely to spot outliers. The use of a survey allowed for a larger range of participants in the entire study without invasive time requirements on the part of the participants or the researcher.

**Survey type.** The survey was 21 questions in length. The goal was for it to be completed in 15 minutes or less; the average time spent per survey was 14 minutes. There were questions regarding basic demographic data, medical education issues, current work/life balance issues, and medical culture issues. Some questions were multiple choice questions with a defined number of answers; some questions allowed participants to write their own response. Some questions determined the next question in the survey. The final question offered the opportunity to participate in the interview portion of the study. A survey protocol is located in Appendix B.

**Collection method.** The survey was distributed electronically via Qualtrics, which is an online survey distribution, collection, and analysis platform. Each Alumni Association denied the request to disclose alumni email addresses for this study, but agreed to send out the emails on behalf of the researcher. An Email Protocol is located in Appendix A. As such, each Alumni Association sent an email to female graduates from 1995, 2000, 2005, and 2010 for whom they had email addresses; neither school could guarantee that email addresses were valid or current, but were the only addresses they had on file. School A sent emails to 105 graduates and School B sent emails to 90 graduates for a total of 195 potential participants. Each email included a link

to the survey in Qualtrics as well as a link to a full Consent Document in Dropbox. Responses were stripped of all technical or personal information so they could not be linked to a participant, unless the participant disclosed their personal information and/or decided to participate in the interview portion of the study.

**Collection timeline.** The survey was available for six weeks for each institution, with School A beginning on April 13, 2016 and School B beginning on April 21, 2016. Reminder emails were sent by the Alumni Association two times throughout the availability window to encourage participation: on May 9, 2016 and May 23, 2016 for School A and May 16, 2016 and May 31, 2016 for School B. Responses were collected between April 13, 2016 and May 31, 2013, or a total of 7 weeks, and then prepared for data analysis.

**Participants.** Twenty-five participants completed the survey. Provided all email addresses were active, this is a response rate of 12.8%. Since the survey did not ask for institution attended – only medical degree awarded – it is unknown how many participants came from each institution. Table 4 gives the number of participants by cohort.

Table 4

*Number of Survey Participants by Cohort*

Cohort	Participants
1995	4
2000	6
2005	8
2010	7
Total	25

Although there was no control for specialty – in that participants were not selected or prohibited from participation based on specialty – it does give context to the participants. The

inclusion of specialty here is as a descriptor of the participants in the study, as shown in Table 5.

The intersection of specialty with work/life balance issues will be explored in Chapter 4.

Table 5

*Number of Survey Participants by Specialty and Cohort*

Specialty	1995	2000	2005	2010	Total by Specialty
Anesthesia	0	1	1	0	2
Child Psychiatry	0	0	1	0	1
Emergency Medicine	1	1	1	1	4
Family Medicine/Practice	1	2	0	0	3
Functional Medicine	0	1	0	0	1
Hospitalist/Internal Medicine	1	0	0	2	3
Neurology	0	0	1	0	1
Not Given	1	0	0	0	1
OB/GYN	0	1	2	1	4
Pediatrics	0	0	2	2	4
Sports Medicine	0	0	0	1	1
Total by Cohort	4	6	8	7	25

## Interviews

Interviews provided an opportunity to receive in-depth data from participants who were willing participate further in the research.

**Interview type.** Each interview was between 15 and 35 minutes in length. Some interview questions were similar to the survey questions, but were explored more deeply in the interview setting. The semi-structured format allowed the researcher to acquire specific information from all interview participants and allowed for more free-flowing responses depending on the participant and the situation (Merriam, 2009). An interview protocol is located in Appendix C. Although all interviews followed the protocol, due to the fluid nature of qualitative research and the context of each interview, some questions were eliminated or explored more deeply depending on the participant's response.

**Collection method.** The preferred method for interviews was face-to-face interviews; three interviews were conducted this way, two at the place of practice for the participant and one at a mutually agreed upon location. The remaining seven interviews were conducted by phone; three of the participants were at home, three were at work, and one was at a child's baseball game. The interviews were conducted at a time and place most convenient for the participant. In order to provide a clear recording of the interview, the interviews took place in a quiet location for both the researcher and the participant. Interviews were recorded using an iPhone and the Voice Memos app.

**Collection timeline.** Scheduling for interviews began on May 13, 2016 and concluded on June 21, 2016. Interviews were conducted during daytime hours between May 24, 2016 and June 29, 2016. Total interview collection time – from initial contact to final interview – was 6 weeks.

**Participants.** Of the 25 responses given to the survey, 20 agreed to be contacted for an interview and disclosed personal information. Of that 20, 10 were interviewed; the other 10 either declined to participate or did not respond to emails from the researcher for an interview. The 10 interviewees were from School A and School B, Cohorts 2000, 2005, and 2010, and included those specializing in anesthesiology, emergency medicine, family medicine, neurology, pediatrics, and sports medicine, as shown in Tables 6 and 7.

Table 6

*Number of Interview Participants by Cohort*

Cohort	School A	School B	Total by Cohort
1995	0	0	0
2000	3	1	4
2005	1	2	3
2010	3	0	3
Total by School	7	3	10

Table 7

*Number of Interview Participants by Specialty and Cohort*

Specialty	2000	2005	2010	Total by Specialty
Anesthesiology	1	1	0	2
Emergency Medicine	1	1	0	2
Family Medicine	2	0	0	2
Neurology	0	1	0	1
Pediatrics	0	0	2	2
Sports Medicine	0	0	1	1
Total by Cohort	4	2	3	10

**Transcribing.** After interviews were completed, they were emailed to the transcriptionist for transcribing. The returned transcript was a .docx file and was verified by the researcher who re-listened to the interview. If needed, the researcher edited the transcript to accurately reflect the interview, correcting for typographical errors and improperly transcribed passages. The transcriptions were direct transcriptions – corrections for grammatical errors or patterns of speech (e.g. um, yeah, er) were not made. Participants were emailed a copy of their interview transcript for clarification and corrections. The participants had two weeks in which to correct or disapprove of the data and/or ask for its removal from the study. No response within the two weeks was understood as approval for inclusion in the study. Once the transcript was approved, all recordings were destroyed. An email protocol for interview approval is located in Appendix A.

### **Documents and Records**

Documents and records are the collection of artifacts such as documents, official institution records, websites, books, and other materials that provide useful data for the study (Merriam, 2009). For the purposes of this study, document and records analysis included:

- Demographic breakdown of gender of each class

- Demographic breakdown of gender of the faculty of record from the time of matriculation to graduation for each cohort at each institution.
- Historical data regarding founding of institution
- Historical data regarding female-specific programming or organizations at each institution
- Historical data regarding the tuition rates for each institution
- Curriculum from the time of matriculation through graduation for each cohort at each institution

Documents and records were digital or physical in nature. Digital documents were stored as .pdfs; physical documents were either copied and converted to .pdfs or used and then returned. All documents and records were obtained from public access archives or information requests from the institution.

**Collection timeline.** Document and records collection occurred throughout the entire data collection period.

### **Observations**

Researcher observations were recorded for each interview. This was done to document any relevant data not received from surveys, interviews, and documents and records. An observation protocol is located in Appendix D. This was especially useful during the interview data collection stage, particularly the face-to-face interviews. If an interview was conducted by phone, as much information as possible was collected regardless of the lack of visual confirmation.

**Collection method.** Observations occurred throughout the entire study. After each interview the researcher documented the observation of the encounter using the observation

protocol as a worksheet. Each observation was dated and saved with other documents and records for analysis. Collection concluded when data analysis began.

## **Data Analysis**

Data analysis began at the conclusion of data collection, approximately 16 weeks after initial survey emails were sent. According to Yin (2011), data analysis is a five phase process: assemble data, disassemble data, reassemble data, analyze data, and create conclusions. The middle three phases – disassemble, reassemble, and interpreting – were a recurring process until the data had been fully analyzed. Data analysis was considered complete when there were no other patterns or interpretations to be made; rather, when the analysis process has been exhausted. From there, the research shifted to the conclusions and recommendations phase – a process that will be covered more in depth in chapter 5.

### **Assemble Data**

Data assembly was the gathering of all collected data to examine as a whole. During data assembly, information was compiled regardless of when or how it was collected. For the interview data, this meant a transcription of the interview. All other data were already in a digital format, either a spreadsheet or .pdf. All data were stripped of any identifying information, such as names or IP addresses during data assembly.

Data assembly resulted in what was essentially a massive pile of all the data collected with little or no organization. The next objective was to attempt to organize the data for the other analysis phases. Per Yin (2011), “more orderly data will lead to stronger analysis and ultimately to more rigorous qualitative research” (p. 182). This organizational approach also allowed the researcher to become more familiar with the data and to find gaps in information. Finally, this step facilitated a consistent formatting structure of the data for both clarity and ease

of additional analysis (Yin, 2011). Essentially, properly assembled data prepared the data for further analysis.

## **Dissemble Data**

Once the data were assembled, the next step was to break it down into individual parts. This allowed the data to be separated and analyzed at a microscopic level. If assembling the data created a forest, disassembling the data discovered each individual leaf and branch that comprised the forest. To start and create order within the assembled data, each piece of interview and survey data were coded.

**Coding.** Coding is the process by which labels or terms are assigned to each piece of data so that it can be easily sorted (Merriam, 2009). A full list of codes can be found in Appendices E and F. The coding process began with a preconceived notion of codes, derived both from the research questions and observations throughout data collection. Although partially designed beforehand, the coding structure was not intended to be predictive of the data but rather a reflection of what was collected.

There were two types of codes used in data analysis: descriptive and content. Survey and interview data has both descriptive and content codes. Descriptive codes were descriptive of the person from whom the data came; primarily identifiers like cohort, specialty, marital status, and number of children. Many of these descriptive codes came from the observations of the researcher or the data itself. There were 51 total descriptive codes, with 10 root codes and 41 2<sup>nd</sup> level codes. These types of codes were useful in reassembling and interpreting data and added context to the content given by that participant. Content codes were more content specific and utilized multiple levels. This is because the purpose of coding “is to begin moving methodically to a slightly higher conceptual level” (Yin, 2011, p.187). There were 151 content codes used,

with 9 root codes, 50 second level codes, and 92 third level codes. For example, an excerpt about an inappropriate gender-based comment from a colleague would be coded Culture of Medicine > Discrimination > Other Doctors – Culture of Medicine is the root code, Discrimination the second level code, and Other Doctors the third level code. A single excerpt of data may have multiple content codes; the above comment may also be tagged Culture of Medicine > Male/Female Perception Issues > In Practice. In coding all responses, 1035 codes were used for 614 excerpts – 193 codes for 132 survey excerpts and 842 codes for 482 interview excerpts. Because the interviews were longer and have more depth, they were more heavily coded.

As coding levels emerged in the data, codes were refined. Codes like Struggles became second level codes which then expanded to include third level coding for clarity of the different kinds of struggles expressed. Coding also required several passes through the data. All interviews and surveys were initially coded and then adjustments were made to the code structure before a second pass was made through the data. After that, each code was checked to confirm that all excerpts linked to each code were internally consistent. The goal of coding was to sort all of the pieces of data with a consistent format of description and that included double checking for consistency.

**Quantitative analysis.** The survey results were disassembled using quantitative and qualitative analysis. For quantitative analysis, data were examined by sorting the data on an Excel spreadsheet and running simple formulas for counts, averages, and sums. All survey responses given for open-ended questions were coded like interview responses using the aforementioned coding format.

**Computer aided software.** Computer software, specifically Dedoose, was used to run

quantitative analysis and coding. Dedoose was used as a tool – not a coder. The use of software is to make later retrieval easier than if all coding and analytics were produced by hand (Yin, 2011). Dedoose is an online platform that is password protected; the researcher only accessed the tool through a private computer to protect participant confidentiality.

## **Reassemble Data**

Once data were coded, it was ready for reassembly. According to Yin (2011), this is a process by which data are sorted and patterns identified. The goal was to group the data in new and different ways in order to search for patterns and interpretations. This is where the iterative process of disassembly and reassembly began to occur.

**Patterning.** Patterning is the grouping together of similar data to find new or broader themes in the data. Patterns were created by grouping the data by both descriptive and content codes, such as examining all responses for Specialty > Reason for Pursuing Specialty > Lifestyle Fit by cohort, specialty, and school. Patterns were found in large and small groups of data; the only requirement was that they were consistent within the reassembled data.

**Triangulation.** Another benefit to reassembling data were the use of triangulation to ensure validity. Triangulation checked that all responses to a question or from a certain participant were in alignment, both within the data source (i.e. the interview) and with other data (i.e. academic information from institution). For example, the actual number of women in a cohort was compared to the amount reported in an interview. The more the data is reinforced with other data, the stronger the validity of the study. The best time to establish data validation was during data reassembly.

## **Interpret Data**

After the disassembly and reassembly process had been repeated and all patterns discovered, it was time to begin interpreting data. This was the true ‘analysis’ portion of data analysis – interpreting and creating meaning from the collected data. Qualitative research is narrative (Merriam, 2009; Yin, 2011) and therefore requires thoughtful and thorough analysis. Furthermore, Yin (2011) states that “compelling conclusions bring unity to the entire rest of the study” (p. 206). It was vitally important that the narrative drawn from the research is empirically based and rationally compelling.

**Occurrence of codes.** The occurrence of a code adds to the overall narrative of the research findings by essentially describing how often a certain phenomenon occurs within the data. The more important the topic to the participants, the more the code appeared in the data. The more important the topic, the more meaning it added to the research study findings and recommendations. When interpreting data for this study, the occurrence of codes was used to determine the most important issues or topics within the research.

**Examining patterns.** It is one thing to discover and note various patterns, it is another to derive meaning from them. Patterns reveal a deeper story, a tradition or cultural practice that permeates the study. Therefore, the next step in data interpretation was from counting the occurrence of codes to offering conclusions based on how those codes related to one another and the larger study. If the occurrence of codes answered ‘how often is this happening?’, then examining patterns answered ‘what is happening?’.

**Causation/Mapping.** Just as examining patterns built on the occurrence of codes, causation and mapping built on examining patterns. Causation and mapping are the predictive order of patterns, a declaration that without the first pattern, the second would not occur.

Causation goes deeper to offer an explanation for the relationship between two patterns. While correlation (or mapping) does not always equal causation, there can be certain patterns that predict other patterns. Even if one pattern does not cause another pattern, it can predict the occurrence of another pattern. The analysis of such causation or mapping answers ‘why?’ and provided the greatest level of depth to the data analysis.

### **Ethical Considerations**

Steps were taken throughout the entire study to keep within ethical and moral research guidelines. In order to trust the findings of a study, one must also trust that the highest standards of integrity, competence, and ethical behavior were used throughout the entire study from beginning to end (Merriam, 2009). According to Yin (2011), “the ethical spirit transcends but is directly related to the specific procedures for protecting human subjects” (p. 38). The Institutional Review Board (IRB) process acted as the gatekeeper for the protection of subjects and preservation of ethical practice for this research. As such, IRB approval was obtained from the researcher’s institution of study as well as institution where the researcher is employed. As a matter of policy, the employer institution of the researcher required IRB approval for all research that is conducted by their employees, regardless of any connection the research or participants may have had to the institution.

### **Consent**

Per IRB requirements and general ethical behavior, consent forms were signed by all participants. For survey participants, this was a checkbox required before beginning the survey as well as an external link to a full consent document. For interview participants, this was a signed document that was obtained before the interview could commence. The participant kept one copy of the consent document while the researcher kept the other. For interviews that did

not occur face-to-face, consent forms were signed by the participant and emailed or texted to the researcher before the interview occurred. All participants were above the legal age of majority. Participants were made aware of procedures for withdrawing their consent before surveys were submitted and interviews took place.

### **Confidentiality**

These consent forms also acted as a confidentiality agreement between the researcher and the participants. Additionally, confidentiality was verbally communicated to all participants at the beginning of all interviews. All data collected was stripped of personally identifiable information. Pseudonyms were given to all participants; real names or locations were not used. The outside agent providing transcribing services also signed a confidentiality agreement. Recordings, documents, consent forms, or any other data with personally identifiable information was kept in possession of the researcher at all times while the study was being conducted and will be kept in a locked cabinet in the research advisor's office for three years following the completion of the study.

### **Special Populations**

Special populations, such as women with disabilities or women who are pregnant, may have naturally occurred but were not sought out for the study. Their special population status did not impact their participation or data collected.

### **Neutrality**

Per Yin (2008), one of the hallmarks of good interviewing skills is to remain neutral. This included neutral positioning with regards to the wording of questions as well as the verbal or nonverbal reactions of the researcher. These are sensitive topics that many people struggle with – the last thing needed in an interview was a judgmental interviewer. Neutrality also

protected the integrity of the data and made sure that as much as possible, interviewer bias was negated.

### **Limitations and Assumptions**

As with any research, there were limitations and assumptions within this study design. Although work/life balance is a concern for all people, this study was limited to the female perspective. Accordingly, it was discussed as ‘work/life’ rather than ‘work/family’ as family status was not a factor required for participation in the research. The study did not control for race or specialty, since screening for such variables would have further narrowed an already small population past the point of significance. Since most of the data were self-reported, there was the inherent chance that data would be skewed or flawed. Unless otherwise stated, it was assumed that all who self-reported as female had always been female and any reference to male and female is referring to both gender and sex.

## **CHAPTER 4: ANALYSIS**

### **Data Analysis**

Particular themes emerged throughout the data analysis process. As designed, the themes were less evident when looking at a specific piece of data, like a single survey or interview response, but rather began to appear when looking at the data as a whole. In particular, these themes were related to but outside strictly work/life balance challenges: reasons for choosing osteopathic medicine and a particular specialty, discrimination and perception issues in the workplace, domestic and lifestyle issues, marital and family planning, and cultural issues regarding physician self-care. These themes were then applied the challenges of work/life balance for female physicians to complete the data analysis process. Each theme was analyzed, when appropriate, using survey and interview data as well as observation and documents data.

### **Context**

Each interview began and ended with the same questions. This helped to frame each interview and create context for each participant, namely why they became a doctor and if they were happy with that choice. These questions were gentle ways to begin and end a conversation about the very personal subject of work life balance. In the same way, it is a good place to begin this data analysis.

### **Reasons for Pursuing Osteopathic Medicine**

Each interview began with a simple question – why did you decide to become a physician? Not only did this break the ice for the interview, but it helped set the perspective for how they chose their profession and why they continue practicing today. The most common response was related to a long-time dream or interest, followed closely by altruistic reasons and an interest in science. Some participants gave more than one reason for pursuing medicine, resulting in 26 responses for 10 participants; each reason was coded individually. The reasons

are evenly distributed among the cohorts and schools, revealing that age and school choice are not factors in these women deciding to pursue medicine, as shown in Table 8.

Table 8

*Reasons for Pursuing Medicine*

Reason for Pursuing Medicine	Number of Responses	Sample Response
Long Time Dream or Interest	8	"I think I was kind of like 5 or 6 years old when I decided that is what I wanted to do."
Altruistic Reasons	7	"I have always been someone that enjoyed helping people, so that lead me to an interest in pursuing medicine."
Interest in Science	6	"I loved science and math and they definitely kind of tried to guide me into engineering... and I was an engineering major my first two years. And during that time I started thinking about doing biomedical engineering and then that led into medicine."
Fell Into It	4	"I was planning on going to PA school. I thought it would be easier and then somebody said, 'You should just be a doctor' and so I applied to medical school and that was about it. I didn't really know what I wanted to do after college... I didn't really have a good plan."
Familial Legacy or Interest	1	"My dad is in orthopedic sales and my mom was an orthopedic OR nurse."

The next question was related to why these women specifically chose osteopathic medicine. More varied reasons were given for the pursuit of osteopathic medicine, the most common being Guided Towards DO and the appeal of the Holistic Approach, as detailed in

Table 9.

Table 9

*Reasons for Pursuing Osteopathic Medicine*

Reason for Pursuing Osteopathic Medicine	Number of Responses	Sample Response
Guided Toward DO	6	"The physician that I worked with, who was kind of coaching me through, was a DO and had gone to that school as well."
Holistic Approach	6	"The philosophy of just more of a holistic approach I thought was really interesting."
Applied to Several Schools and Was Accepted	5	"I didn't specifically choose it; it is just kind of where I matched."
Close to Home	3	"...because my family lives in [city of school]"
Enjoyed the Faculty at that Particular School	2	"When I interviewed at [School A], I enjoyed the faculty, the people that I met."
Didn't Know Anything About Osteopathic Medicine Before Applying	2	"I wasn't aware of osteopathic medicine until I started applying to medical school."
Pre-Medicine Graduate Program	1	' I chose [School A] because I went to their post-grad program... I went to the post-grad program right out of college to get a better understanding of medicine.'
School Loyalty	1	"I went to [School B] for undergrad, and never thought anything but [School B]"

The reasons given for school choice are not evenly distributed by cohort or school. All of the responses for Being Guided Toward DO are from the cohort of 2000 although they appear from both schools. School A accounts for all of the Holistic Approach (all from 2000) and Enjoyed the Faculty (all from 2010) responses. All responses for "Applied to Several Schools and Was Accepted" and "Didn't Know Anything About Osteopathic Medicine Before Applying" are only from School A but appear in every cohort, whereas School Loyalty only appears for School B. School A is located in a state with more medical school opportunities and a common application for all medical schools but is part of a regional university system, whereas School B is in a state with fewer medical school opportunities but is part of a larger state university

system. Therefore, it is more likely that those graduates from School A were unfamiliar with the specifics of osteopathic medicine and School A in general when applying, but specifically chose School A after going through the admissions process whereas those graduates from School B were more directed to the specifics of the institution and osteopathic medicine before applying and being admitted.

### **Reasons for Choosing Specialty**

Specialty was asked about in both the survey and interview, so there is some overlap in the data. In the interviews, reasons for pursuing specialty were explored. The responses were easily combined into three main reasons: lifestyle, interest, and personality fit. Every participant either re-emphasized a reason or had multiple reasons which resulted in 21 independent responses for 10 participants, as shown in Table 10.

Table 10

#### *Reasons for Pursuing Specialty*

Reason for Pursuing Specialty	Number of Responses	Sample Response
Lifestyle Fit	10	“One reason I chose emergency medicine initially was because I did not want to be on call.”
Interest Fit	9	“I am family practice and I knew from the get go that I wanted to do total treatment of adults and children.”
Personality Fit	2	“I enjoyed working with kids, it kind of fit my personality.”

Reasons are evenly distributed between school and cohort. When controlling for marital or family status, the reasons remain evenly distributed. The difference arises when examining specialty choice and reason for specialty choice, as shown in Table 11.

Table 11

*Reasons for Pursuing Specialty by Specialty*

Specialty	Number of Participants	Lifestyle Fit	Interest Fit	Personality Fit
Anesthesiology	2	3	2	0
Emergency Medicine	2	5	1	0
Family Practice/Medicine	3	0	3	1
Neurology	1	0	2	0
Pediatrics	2	2	1	1
Sports Medicine	1	0	1	0

Emergency Medicine and Family Medicine are highly defined by a specific reason for seeking the specialty. Both participants who were Emergency Medicine physicians specifically cited – and reiterated – not being on call as a reason they chose their specialty. Likewise, all Family Practice physicians cited an interest in treating a range of patients in terms of ages and illnesses as a reason they chose their specialty.

**Do It All Again**

The final question of every interview related to the hypothetical situation of doing it all again; essentially, after being out in practice, would these participants decide to pursue medicine again if given the chance, as shown in Table 12.

Table 12

*Pursue Medicine Again*

Do It All Again?	2000 Cohort	2005 Cohort	2010 Cohort	Total
No – Emphatic	2	0	0	2
No – Probably	--	--	--	0
Maybe/Not Sure	0	0	1	1
Yes – Probably	0	0	2	2
Yes – Emphatic	2	3	0	5

Responses are even distributed by specialty, school, and martial and family status. As the chart above shows, they are not evenly distributed by cohort. The participants in the 2000 cohort are on each end of the extreme – either a definite yes or no. The 2005 cohort seems sure of their choice to pursue medicine – all answered a definite yes. The 2010 cohort is a little more unsure. The particular responses give quite a bit of insight as to their responses, as shown in Table 13.

Table 13

*Specific Responses to Pursuing Medicine Again*

Do It All Again	Cohort	Sample Excerpt(s)
No – Emphatic	2000	“Nope, I would not.”
Maybe/Not Sure	2010	“That’s really hard. I think it depends on the day that you ask me. Because there are times, there have been many, many, many times where I have really asked myself, why didn’t I just become a kindergarten teacher? I could have been around kids, I could have helped people, and it would have been great. And I would have had summers off and I would have the same holidays off with my kids and I would have been a great kindergarten teacher, why didn’t I do that? Why am I sitting here and having to work extra hours and be away from my kids when all I want to do is just go home and cuddle them? So there are those days. But then there are the days when you have that one patient that is just, they needed your help and you could be for them at a time when they were really vulnerable. And actually make an impact, which doesn’t happen with the majority of your patient encounters. But at those times, you are like, that is why I work so hard. All of that work was for that... so I don’t know. I don’t think I have a good answer. I can’t say that I wouldn’t go back and do it again.”
Yes – Probably	2010	“Probably, because I don’t know what else I would do.”
Yes – Emphatic	2000	“I have never regretted that decision” “Nothing would have stopped me from being a physician.”
Yes – Emphatic	2005	“I truly believe it is a calling and what else would I be doing? I can’t imagine anything else.” “I love what I do. I do love what I do.”

The 2010 Maybe/Not Sure participant is the most effusive on the question. For her, it was not a simple yes or no question, it was something she had actively contemplated. Given this

question was at the end of the interview, which was an in-depth discussion regarding work/life balance challenges, this response was perhaps the most revealing about work/life balance conflicts. Just like the deliberate specialty choice, there are factors at play that are not strictly related to the medical profession that influence their feelings and attitudes towards their jobs.

### **Lifestyle Issues**

This section analyzes data about lifestyle issues, specifically data related to marriage and family planning, spousal support or conflict, domestic support, and working hours and financial compensation. These topics expand the context within which these participants encounter work/life balance challenges. Some lifestyle information was collected in the surveys; as such, that is where the lifestyle issues analysis starts.

### **Marriage and Family Planning**

As part of the demographic data collection, questions about marital status and numbers of children were asked in the survey. It is not surprising that the older cohorts are more likely to be married or divorced than the younger cohorts; see Table 14. The numbers of children per participant follow a similar pattern, with one outlier; see Table 15.

Table 14

#### *Marital Status of Survey Participants*

Marital Status	1995	2000	2005	2010	Totals
Married	2	5	7	4	18
Divorced	1	1	0	0	2
Widowed	1	0	0	0	1
Never Married	0	0	1	3	4

Table 15

*Number of Children of Survey Participants*

Number of Children	1995	2000	2005	2010	Totals
0	1	0	1	3	5
1	0	0	1	3	4
2	2	2	4	1	9
3	1	4	2	0	7

The interview data are slightly different. Here the qualifiers for marital status are altered – Never Married is split into Engaged and Single, which is how those participants self-identified their marital status; see Table 16. None of the interview participants were divorced or widowed. The number of children per interview participant follows the same pattern as the survey participants – the number of children per participant declines as the cohort approaches current day, as shown in Table 17.

Table 16

*Marital Status of Interview Participants*

Marital Status	2000	2005	2010	Totals
Married	4	2	2	8
Single	0	0	1	1
Engaged	0	1	0	1

Table 17

*Number of Children of Interview Participants*

Number of Children	2000	2005	2010	Totals
0	0	1	1	2
1	0	0	1	1
2	1	1	1	3
3	3	1	0	4

Regardless of participation in survey, interview, or both, the marital and familial status data is equally distributed between school, cohort, and specialty.

The advantage of the interview process was the ability to learn more about the timeline of marriage and children with regards to their medical education and training, as shown in Table 18.

Table 18

*Marital Timeline of Interview Participants*

Marital Timeline	Cohort	Number of Participants	Excerpts
Married Before Medical School	2000	2	<p>“I got married after my third year of college.”</p> <p>“I was married in college”</p>
Married During Medical School	2010	2	<p>“We got married in medical school [during] my third year of medical school”</p> <p>“It was between third and fourth year of medical school. It was on our vacation months when I was studying for one of the steps, one of the board exams.”</p>
Married During Residency	2005	2	<p>“I got married my intern year.”</p> <p>“I got engaged my first year of residency, but I did my residency in Phoenix and my husband stayed here. He was a lawyer who was on the partnership track so he couldn’t leave. So we got married my third year of residency.”</p>

Two participants did not give an exact timeline for marriage, and although both gave the impression of having been married for a long time, their information is not included in the above chart.

All married participants had between one and three children for a total of 19 children. The timeline for having children ranges significantly, as shown in Table 19.

Table 19

*Children Timeline of Interview Participants*

	During Medical School			During Residency			After Practice Establishment		
	2000	2005	2010	2000	2005	2010	2000	2005	2010
Birth of 1 <sup>st</sup> Child	1			2		2	1	2	
Birth of 2 <sup>nd</sup> Child	1						2	2	2
Birth of 3 <sup>rd</sup> Child							3	1	
Total		2			4			13	

While half of the participants had children before completing their training, a majority of children were born after training was completed. The stories regarding when these children were born, particularly during medical school and residency, gives dimension to the numbers, as shown in Table 20.

Table 20

*Specific Responses Regarding Children Timeline of Interview Participants*

Cohort	Birth of First Child	Total Number of Children	Excerpt
2000	During Med School	3	<p>"I had my first between my second and third year and it was perfect timing there because we had eight weeks that we get off that we could take. And I took mine all at once.... And then I went and started my [rotations] directly after that.</p> <p>And then [when] my second was born, I had another week that I could take off at the end of my clinical rotations and he came in April and I finished the end of May. I basically had him, I took a week off and I came back and I finished my training.... I finished up and was able to graduate right on time. But that was risky. Looking back at that.</p> <p>You know as I was going through, and I pretty much went straight through undergrad to medical school and I was married in college, I thought at some point we wanted to have a family and the issue was when. Do I</p>

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			try to have kids in medical school or do I try to have kids in residency, or do I wait until I am all the way completely done and I am in my 30s to start a family, or 40s? I had decided, well, there is no better time than now and I ended up having my first two children in medical school and that was hard. I think knowing what I know now that I probably would have waited.”
2000	During Residency	3	“I was advised, sometime possibly during the interview process, that if you are doing family practice the third of year of residency is a good time to start a family. So that’s when I had my first baby.”
2010	During Residency	2	“I had my first baby my intern year of residency. Yeah, that was not planned. Not the way I wanted to spend my intern year, waddling around pregnant.”

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Those who had a baby during residency discussed the difficulty of having a child while completing their medical training, and the one participant who had children in medical school expressed some regret at the timing. She also had a third child after residency and further commented:

*“He was born after I got out of residency. So I had finished residency and then I had a year in practice and then had him the next year. He was a wonderful experience at that point because I actually could be a mother. I was out and not in my training, not in my residency, so I really felt like I got to be a mother for once. It was very therapeutic. I thought, ‘Gosh, you know, if I had waited until now and didn’t have all that other stress of training, I probably would have enjoyed it a little bit more.’”*

While it is certainly possible to have children in medical school or residency, her story compares two very different parenting experiences. It also highlights the stress of completing medical training while simultaneously becoming a mother. This will be revisited when discussing maternity leave later in the analysis.

## **Spousal Support or Conflict**

A majority of married interview participants and some survey participants mentioned times of spousal support, sacrifice, and conflict, as shown in Table 21.

Table 21

### *Spousal Issues of Participants*

Spousal Issue	Survey Responses	Interview Responses	Sample Excerpt(s)
Support	4	11	Survey: “[I] make sure to communicate to my husband that I need a little down time before engaging in our home life.” Interview: “It helps when you have a husband who is willing to take care of the kids.”
Conflict	1	1	Interview: “I originally thought I would go into OB/GYN, but my husband asked me not to because of the call hours and the commitment. He was afraid I would be up there all the time if it was my patient. He was right.”
Sacrifice	1	4	Survey: “When I started medical school, I had 4- and 8-year-old daughters. Had it not been for the overwhelming support of my husband and our parents, my daughters would not be the successful women they are today.” Interview: “He had to very much adjust his life and expectations of life for my career, but he was happy to do it. He was willing to do it because that was kind of the plan.”

These women, with the demands of their profession, do not live in a vacuum. It is clear from their responses that they would not be able to do what they do with the support of their spouse. Even the one exception that is coded as conflict is not harsh nor did it keep her from being a physician. Although the question of their spouses' professions was never asked – this research was about the women, not their husbands – the subject did occasionally come up in the interview. Of the 8 married participants, five revealed the profession of their spouse: lawyer, physician, business manager, IT consultant who works from home, and stay at home dad.

## **Domestic Support**

Some form of domestic support – both paid and unpaid – was utilized by every participant; see Table 22. Within interviews, questions were specifically asked about common paid domestic help such as lawncare, housekeeping, nannies or babysitters, and meal preparation. Some also mentioned the role of extended family – specifically in-laws and siblings – to help with childcare needs.

Table 22

*Domestic Support Utilized by Participants*

Domestic Support	Number of Responses	Sample Excerpt
Nanny/Babysitter	8	“We hire a nanny, we have had her for years.... She can come do some stuff and the kids like her.”
Lawncare	7	“I have a lawn crew.”
Housekeeping	6	“We have a housekeeper and we actually had a housekeeper long before we had kids... we even got a housekeeper in residency because as much as I loved cleaning and I enjoy it, I realized that I was spending my one day off a week cleaning my house.”
Meal Preparation	1	“I have someone who cooks for me and that is very beneficial for me.”
Childcare by Extended Family	2	“My mom and dad live in town. They are both retired, so they are a huge help.”

It is not entirely surprising that these women utilized paid or unpaid domestic help as it is not an uncommon practice in contemporary America. What was a surprising was an assumed acceptance of such assistance. There was little resistance to the topic when it was brought up in the interviews, as if the use of such help was a given for female physicians, as shown in Table 23.

Table 23

*Specific Responses Regarding Domestic Support*

		Excerpt
2000 Interview		“We hire all of that. We used to do it all ourselves. Actually when we were first married, even after we had all the kids, I did all my own housework and we did our own yard work, but it just got to be too much just to keep up.”
2005 Interview		“As far as feeling overwhelmed at home with all the stuff that I like have to take care of, or do, definitely a positive [of being a physician] is financial. You know I have the resources to be able to hire sitters that can help. Being able to hire a sitter for 12 hours a week to help my husband helps me.”
2010 Survey		“As a female, usually we are still considered as the main caretaker of the home and family. Keeping this balance with family life, as well as sustaining a successful career is difficult. I realize many female physicians require additional help for these activities that were considered "traditional", such as hiring a housekeeper or nanny, is almost a must. The other alternative is having close family members readily available to help with family and house responsibilities.”

All of the data indicates that domestic help, either in paid or unpaid labor, is a vital resource for female physicians.

### **Working Hours and Financial Compensation**

A discussion about lifestyle issues would be incomplete without mentioning working hours and financial compensation. Within the survey, participants were asked to give both the total amount of hours worked per week and the amount of hours spent seeing patients; as shown in Table 24.

Table 24

*Working Hours by Survey Participant*

Cohort	Specialty	Marital Status	Number of Children	Total Hours Worked	Hours Spent Seeing Patients
1995	Not Listed	Divorced	0	40-49 hours	20-29 hours
1995	Family Medicine/Practice	Widowed	2	40-49 hours	30-39 hours
1995	Hospitalist/Internal Medicine	Married	2	50-59 hours	30-39 hours
1995	Emergency Medicine	Married	3	50-59 hours	50-59 hours

2000	Functional Medicine	Married	3	20-29 hours	20-29 hours
2000	Family Medicine/Practice	Married	2	40-49 hours	30-39 hours
2000	Anesthesiology	Married	2	40-49 hours	40-49 hours
2000	Family Medicine/Practice	Married	3	50-59 hours	30-39 hours
2000	Emergency Medicine	Married	3	50-59 hours	40-49 hours
2000	OB/GYN	Divorced	3	50-59 hours	40-49 hours
2005	Pediatrics	Married	2	20-29 hours	20-29 hours
2005	OB/GYN	Married	3	40-49 hours	30-39 hours
2005	Anesthesiology	Married	2	40-49 hours	40-49 hours
2005	Child Psychiatry	Married	2	50-59 hours	20-29 hours
2005	OB/GYN	Married	1	50-59 hours	30-39 hours
2005	Pediatrics	Married	2	50-59 hours	30-39 hours
2005	Emergency Medicine	Married	3	70+ hours	30-39 hours
2005	Neurology	Never married	0	70+ hours	40-49 hours
2010	Sports Medicine	Married	1	40-49 hours	30-39 hours
2010	Allergy/Immunology	Married	2	50-59 hours	20-29 hours
2010	Pediatrics	Never married	0	50-59 hours	30-39 hours
2010	Emergency Medicine	Never married	0	60-69 hours	50-59 hours
2010	OB/GYN	Never married	0	60-69 hours	50-59 hours
2010	Hospitalist/Internal Medicine	Married	1	70+ hours	40-49 hours
2010	Hospitalist/Internal Medicine	Married	1	70+ hours	50-59 hours

A few observations can be made from Table 24. Marital status and number of children does not make an impact on the amount of hours worked, nor does specialty. There is some relationship between hours worked and cohort year: only those who graduated in 2005 or 2010 are working over 60 hours a week. There could be a variety of reasons for this, including the time needed to create an established and therefore selective practice; however, reasons for working hours was not asked in the survey.

Perhaps the most interesting is the gap between total working hours and hours spent with patients. About half, or 12 participants, reported spending 20 or more hours a week on working responsibilities that do not include seeing patients. These participants are not similar in specialty

choice, marital status, number of children, or cohort – the decision to work the additional non-patient related hours is influenced by other outside sources not accounted for in the data. Nor is it entirely clear what that additional time is spent on from the survey data. However, the interview process shed more light on the topic, as shown in Table 25.

Table 25

*Specific Responses Regarding Working Hours by Interview Participants*

Cohort	Specialty	Marital Status	Number of Children	Sample Excerpt
2000	Emergency Medicine	Married	3	“Well, it depends on the week. Because I work shift work generally in the emergency room so I do 12-hour shifts... some weeks, like this past week, I worked 84 hours, this week will probably be more like 40.”
2000	Family Medicine	Married	3	“Currently I work three days a week. Usually patient hours are seven each day so, 21 hours a week. I have worked full time. I mean full time wasn’t a good balance. I knew it wasn’t going to be a good balance for me... But if I worked any less than three days a week, I really wouldn’t be providing patients with any kind of continuity of care.”
2000	Anesthesiology	Married	2	“I work part-time but part-time for me is 7-4 everyday, Monday through Friday.”
2005	Neurology	Engaged	0	“I can work less, but my patient’s still require the same amount of attention - attention to detail, attention to see them when they need me. [If] somebody has a MS exacerbation, I have to see them, I don’t have the option of being like, ‘oh, I am busy.’
				In some ways, I have opportunities other people don’t have. I am in private practice, so I have the opportunity to limit my patients, limit my hours, I could stop taking new patients, those sorts of things. But at the same time, I think that like many professions these days... we

				just have a lot of paperwork and amount of workload that is not related directly to patient care.”
2010	Sports Medicine	Married	1	“I don’t chart when I am at home because I don’t want to bring work home... I usually work through lunch to finish up some of those charts.”
2010	Pediatrics	Married	2	“I spend many, many, many more hours on charting and returning phone calls and documenting and reading up on things, discussing with my other partners [about] various cases; I spend a lot of time doing that. Probably more time doing that than actually seeing patients.”

In addition, a few participants mentioned holding leadership positions in their working environment. This only occurred in the cohorts of 2005 and 2010, although it was not relegated to any particular specialty or familial status. These leadership roles were points of pride for these women – they were eager to talk about it – but were also realistic about the increased demands on their time these positions created; see Table 26.

Table 26

*Specific Responses Regarding Leadership Positions by Interview Participants*

Cohort	Specialty	Marital Status	Number of Children	Excerpt
2005	Emergency Medicine	Married	3	“I do more administratively than I actually do clinically. Now that I am the Director and the Chairperson, I unfortunately get all the afterhours call if someone is sick, or if, you name it: if we get a Health Department visit, if somebody doesn’t get along with one of the specialists, or if anything that goes wrong, I get the phone calls. So that is tough, because you never know when it is going to happen and I have kids.”
2005	Anesthesiology	Married	2	“As the chairman of the anesthesia department now... I am off work this week and it is crazy how many phone

				calls I have received, the texts I get, so I really try to make a boundary and say, 'I am off work, we will talk about this next week' especially if it is not an emergency or something pressing."
2010	Pediatrics	Single	0	"I work at an academic institution currently and I see patients and I am supervising resident physicians as well."

When asked what were the benefits of being a physician, a few participants mentioned control over working hours and financial compensation, as shown in Table 27.

Table 27

*Specific Responses Regarding Working Hours and Financial Compensation*

Cohort	Specialty	Sample Excerpt
1995	Emergency Medicine	"When I was just out of medical school and residency, really all but the last 4 years, I worked 80+ hours a week, plus calls. That's not balance. But it pulled me out of a lifetime of poverty."
2000	Family Medicine	"One benefit for me is being self-employed. I can set my own hours."
2000	Anesthesiology	"I think depending what specialty you go into, the main benefit would be monetary benefit. That helps you maintain a particular lifestyle that you would like for your children."
2005	Anesthesiology	"I mean definitely one of the positives is we do have some sort of control in terms of how much we work and what we do to a degree. As far as feeling overwhelmed at home with all the stuff that I have to take care of or do, definitely a positive is financial... I am able to [work] and [my husband] can go play racquetball or go to the grocery store, go get the car tags, all of the stuff that I need him to do so that I can do what I do. So having the resources to be able to do stuff like that is definitely a positive."

Individual and gross household income were not queried, but these responses show an interrelatedness between lifestyle, domestic help, and financial compensation for some physicians. For these participants, there is a clear cost-benefits analysis that goes into their decisions regarding working hours and compensation as it relates to a desired lifestyle.

Additionally, it is interesting that financial benefit types of comments were not made by any participants in the 2010 cohort. In fact, three survey participants from the 2010 cohort mentioned “pay inequality” as one of the biggest struggles facing female physicians and only one made a direct reference to money: “Do not become money hungry – know your priorities and live your life accordingly.” This may be due to rising tuition costs in the 2000s (as discussed in the following Culture of Medicine, Medical Education and Training section), discrimination (as discussed in the following Culture of Medicine, Discrimination section), higher work hours than older cohorts, or a variety of other reasons not directly addressed in the data.

### **Culture of Medicine Issues**

Data regarding the culture of medicine were gathered to provide educational and professional context to the issues of work/life balance for female physicians. Information was gathered and analyzed about the participant’s medical education and training regarding curriculum and tuition, male/female ratios of students and faculty, presence of female role models, and women’s organizations or support groups. Data were also analyzed for self-care issues and unwritten cultural rules, often learned during medical education and training, to complete the understanding of the impact of the culture of medicine upon the participants.

### **Medical Education and Training**

Medical education is a unique environment, an entry point in to the profession of medicine. Within the study, several aspects of medical education relevant to the issues regarding female physicians were asked about, specifically male/female ratios of students and faculty, the presence of female role models, and female organizations or support. Document analysis of school catalogs and requests of information from the institutions also yielded vital information about the environment in which the participants completed their medical education and training.

**Curriculum and tuition.** Curriculum information was listed in each school's catalog.

By looking at information from 1991 (the entering year for the cohort of 1995) through 2010 (the graduating year of the cohort of 2010), trends in curriculum were observed. Both schools have always had a four-year curriculum to complete the doctor of osteopathy degree.

For School A, few changes occurred from 1991 to 1998. The curriculum was devoted to preclinical sciences in the first two semesters, then clinical sciences for the next three semesters, followed by 20 months of rotations, and finally completed with a two-week final term of medical jurisprudence and other seminars designed to polish the education of the student and prepare them for graduation. The curriculum changed in 1999 to more of an organ-based curriculum: more basic science taught in the first year and more clinical science taught in the second year, but both organized by nine organ systems. The next 23 months consisted of rotations with a two-week final term very similar to the previous curriculum. This style of curriculum, with some minor changes, existed though 2010. Throughout the curriculum, both before and after 1999, students were taught osteopathic manipulative medicine and clinical medicine (which included topics such as medical ethics, medical interviewing, and physical diagnosis) alongside the science based courses for the first two years of the curriculum.

For School B, the curriculum changed very slightly between 1991-2010. The curriculum, with a large emphasis on primary care, was focused on biomedical sciences during the first year and clinical sciences during the second. Subject areas were taught in coordination with one another through the use of lectures, small groups, and interactive lab sessions. As with school A, students also studied osteopathic manipulative medicine and clinical skills like physical examination and diagnosis, preventative medicine, and multicultural issues alongside science-

based courses. The only change in the curriculum occurs in 1993, when it switched from 18 months to 24 months of clinical rotations during the second half of the program.

Tuition information was also listed in each school's catalog. School A listed in-state and out-of-state tuition costs as well as required fees; see Table 28. School B listed in-state and out-of-state tuition costs but did not list required fees; either fees were wrapped into tuition or the school chose not to publish this information; see Table 29. Tuition information for School B for the 1991-92 and 1992-93 academic years was not available; therefore, the tuition information for the Cohort of 1995 is omitted from Table 29. The out-of-state tuition costs are much higher than in-state tuition costs which is common for public schools.

Table 28

*Tuition for School A*

School A				
	In State Tuition	Required Fees	In State Total	Out of State Tuition
1991-92	\$5,463	\$525	\$5,988	\$21,852
1992-93	\$6,500	\$525	\$7,025	\$19,650
1993-94	\$6,550	\$525	\$7,075	\$19,650
1994-95	\$6,550	\$655	\$7,205	\$19,650
<b>Cohort 1995 Total</b>		<b>\$27,293</b>	<b>\$83,032</b>	
1996-97	\$6,550	\$655	\$7,205	\$19,650
1997-98	\$6,550	\$820	\$7,370	\$19,650
1998-99	\$6,550	\$820	\$7,370	\$19,650
1999-2000	\$6,550	\$1,520	\$8,070	\$19,650
<b>Cohort 2000 Total</b>		<b>\$30,015</b>	<b>\$82,415</b>	
2001-02	\$6,550	\$885	\$7,435	\$19,650
2002-03	\$6,550	\$2,226	\$8,776	\$19,650
2003-04	\$6,550	\$3,346	\$9,896	\$19,650
2004-05	\$6,550	\$5,165	\$11,715	\$19,650
<b>Cohort 2005 Total</b>		<b>\$37,822</b>	<b>\$90,222</b>	
2006-07	\$6,550	\$6,338	\$12,888	\$19,650
2007-08	\$10,150	\$2,798	\$12,948	\$36,050

2008-09	\$11,053	\$3,824	\$14,877	\$30,627
2009-10	\$11,053	\$3,824	\$14,877	\$30,627
<b>Cohort 2010 Total</b>	<b>\$55,590</b>		<b>\$116,954</b>	

*Note.* Cohort total tuition amount is shown in boldface.

Table 28

*Tuition for School B*

School B		
	In State Tuition	Out of State Tuition
1996-97	\$7,552	\$18,662
1997-98	\$7,552	\$18,662
1998-99	\$8,684	\$21,460
1999-2000	\$9,552	\$24,244
<b>Cohort 2000</b>	<b>\$33,340</b>	<b>\$83,028</b>
2001-02	\$9,552	\$24,244
2002-03	\$10,507	\$26,669
2003-04	\$11,557	\$30,144
2004-05	\$13,774	\$30,144
<b>Cohort 2005</b>	<b>\$45,390</b>	<b>\$111,201</b>
2006-07	\$16,045	\$31,265
2007-08	\$16,045	\$31,265
2008-09	\$18,325	\$34,686
2009-10	\$19,971	\$37,893
<b>Cohort 2010</b>	<b>\$70,386</b>	<b>\$135,109</b>

*Note.* Cohort total tuition amount is shown in boldface.

These Tables show how tuition rose over time, and as time passed, at an accelerated rate for both schools. According to the Consumer Price Index Calculator (U.S. Department of Labor, Bureau of Labor Statistics, 2016), the buying power of \$28,000 (roughly the entire cost of medical school for the 1995 cohort at School A) was worth \$40,062.78 in 2010 – well short of the \$55,590 it cost the 2010 cohort to attend School A. The same is true for School B – the buying power of \$33,000 in 2000 is worth \$41,787.74 in 2010. While the myriad of reasons for escalating higher education costs are beyond the purview of this research, it is worth noting that

rising medical school tuition created a higher economic burden on later cohorts. This gives more credence to the preceding section regarding the lack of satisfaction with financial compensation for younger cohorts.

**Male/Female ratios of students and faculty.** Data regarding the gender breakdown of the four cohorts was obtained from each institution and is shown in Table 30. This data is from the time of graduation, and does not account for students who may have dropped out or who graduated with a cohort which is different from their matriculation cohort.

Table 30

*Male/Female Student Ratios by Cohort and School*

School A					
Cohort	Male	Male %	Female	Female %	Total
1995	72	66.06%	37	33.94%	109
2000	62	58.49%	44	41.51%	106
2005	53	46.49%	61	53.51%	114
2010	83	54.97%	68	45.03%	151
School B					
Cohort	Male	Male %	Female	Female %	Total
1995	38	71.70%	15	28.30%	53
2000	55	65.48%	29	34.52%	84
2005	46	55.42%	37	44.58%	83
2010	43	53.75%	37	46.25%	80

The percentage ratio of male to female students for both schools are similar. School A more closely tracks with national trends (as found in Figure 1) with a peak of the proportion of female students in 2005. Other than School A in 2005, the percent of female students is slightly below average – most dramatically in 1995, which had a national average of 41.7% female enrollment. School A has seen a steady increase of female students over time.

In order to determine the faculty present during a cohort's time at an institution, faculty rosters were obtained from each school's official academic catalog. A list of faculty name and

rank was compiled. Clinical faculty – those with the rank of Clinical Associate Professor, Clinical Assistant Professor, and Clinical Instructor – were excluded from the lists. This was because both schools did not consistently list these positions. Gender was determined if the answer was obvious – Richard and William are probably males, Angela and Lisa are probably females. If the answer was not obvious – Leslie, Alex, JB, Lynn, etc. – each faculty member was Googled until an answer was found; if it was still unknown after an internet search, gender was left blank.

Table 31

*Male/Female Faculty by Cohort and School*

School A Faculty						
Cohort	Male	Male %	Female	Female %	Unknown	Total Cohort
1995	223	79.36%	47	16.73%	11	281
2000	189	59.81%	120	37.97%	7	316
2005	199	54.22%	154	41.96%	14	367
2010	272	52.11%	214	41.00%	36	522
School B Faculty						
Cohort	Male	Male %	Female	Female %	Unknown	Total Cohort
1995	57	81.43%	10	14.29%	3	70
2000	52	75.36%	15	21.74%	2	69
2005	76	76.77%	21	21.21%	2	99
2010	68	72.34%	26	27.66%	0	94

Table 31 is the resulting estimated breakdown of faculty. The 1995 numbers include all faculty who were listed in the catalog between 1991-92 and 1994-95 academic years, a pattern repeated for all subsequent cohorts. School A is a larger institution and includes more academic programs, but all faculty for the institution were listed together and therefore included. The percentage is the interesting factor – for School A, the number of women faculty increased significantly over the years whereas the growth was slower for School B. An interesting note –

as of 2016, the president of School B is a woman who was part of the faculty in 2010, which may indicate a continued increase in female faculty in the years since 2010.

**Female role models.** Survey participants were asked if they had female role models, professors, mentors, or advisors in medical school and residency, as shown in Table 32. These questions asked for a Yes or No response, not the exact quantity or quality of the female role models, professors, mentors, or advisors.

Table 32

*Reports of Female Role Models in Medical School by Survey Participants*

Cohort	In Medical School			In Residency or Clinical Training		
	Yes	No	Can't Remember	Yes	No	Can't Remember
1995	3	1	0	2	2	0
2000	4	2	0	5	1	0
2005	2	5	1	5	3	0
2010	7	0	0	6	1	0
Total	16	8	1	18	7	0

To expand upon this issue, interview participants were asked what percentage of their medical school class were female, as well as the presence of female professors, preceptors, or clinicians during medical school or residency; see Table 33.

Table 33

*Reports of Female Classmates and Role Models in Medical School by Interview Participants*

Cohort	School	% Female Students in Cohort	Amount of Female Professors/Preceptors/Advisors in Medical School and Residency
2000	A	50%	"There were at least a couple."
2000	A	50%	"Not very many. Maybe 10-20%?"
2000	A	40%	"There weren't a lot of female advisors or professors in medical school. On rotations, quite a few, actually."
2000	B	40%	"Quite a few. There would seem like there was at least one token woman in almost every rotation that I did."
2005	A	50%	"Not many... a few on rotations."

2005	B	33%	"There weren't a lot. I mean, there were a few here and there but not nearly as many females as there were males."
2005	B	50%	"We had, I don't know, maybe 30%? Throughout all the specialties in the hospital as a medical student, there were quite a few women."
2010	A	50%	*Mentioned a few by name, but did not give an overall percentage of female professors
2010	A	50%	"I did in medical school... definitely in residency."
2010	A	55%	"I was close with more male professors in medical school. It was really more in residency where I had more strong female mentors in my attendings."

Overall, the participants remember seeing female professors, role models, or advisors during their medical education and training. Most women also accurately remembered the number of female classmates was about half, somewhere in the 40-50% range. The cohort of 1995 remembered more female professors or role models in medical school than residency – a trend that flips for subsequent cohorts. The cohort of 2005 remembered significantly more female interaction with professors or role models in clinical training (either rotations or residency) than in the classroom setting of medical school. The 2010 cohort was more adamant about remembering female faculty or role models, probably attributed to the fact that they are the least removed from medical school and there were statistically more female faculty during their time at each institution.

This data, more than the other data collected in this study, must be carefully considered regarding reliability of memory. While most of the participants are in line with one another and the data from the institutions, there are differences in experiences and time that could account for outliers. The fact that the data is so similar to institutional information does bode well for the accuracy of the other self-reported data used in the research.

**Organizations or support for female students.** Student organizations specifically for female students were listed in every catalog from both schools. However, just because an

organization is available or officially sanctioned by the school does not mean it is very active or a well-known entity on campus. During the interviews, all participants were asked if there was special programming or organizations available for female students. Only two participants, both from 2010, remember participating in any kind of female-centric organization; the others either didn't remember any offerings or did not choose to participate. Several participants mentioned that medical school was not necessarily the best time for female organizations or for support specific to work/life balance or other women's issues as it was too early and not yet needed.

Table 34

*Specific Responses Regarding Student Organizations in Medical School by Interview*

*Participants*

Cohort	Excerpt
2005	"I probably wouldn't have [participated], because I was a single, fun, going out to the bars. I didn't really have a problem with work-life balance at that time because I didn't have responsibilities other than to keep myself alive. I wouldn't have participated; I didn't need it at that time."
2000	"The majority of people who get into medical school don't have a family at the time. And don't realize that pull to want to be with them."
2005	"I don't know if medical school is really even relevant, because I don't think you understand yet. I mean we were all just like college kids still."
2005	"[Medical school] is kind of like college on steroids. You can eat at McDonald's, or there was always something here to eat at the clubs... I wore scrubs all the time, so that all goes in one load of laundry every two weeks. So it was very, very simple."

All interview participants were asked what they would recommend for programming or support in medical school today. Most recommended either some kind of social media presence or some kind of interactive experience with other physicians, both of which are also discussed in the following Work/Life Balance section. Although not all were sure they would participate, they acquiesce that these are the types of interaction that sustain them as working professionals and to start such a thing earlier in education and training would be beneficial to younger

generations of medical students. This input along with other programming recommendations will be discussed in Chapter 5.

## Unwritten Rules

As with any culture, there are unwritten rules about how to behave or conduct oneself as a member of that culture. Interview participants were asked directly about some of the unwritten rules of being a physician and how they learned these rules. Three common rules emerged – physician self-care, always patient first, and maternity leave. (Issues related to maternity leave are covered in the following Workplace Issues, Maternity Leave section.) Issues regarding physician self-care appeared in five survey responses and 8 interviews. Responses were grouped into common categories of self-care as a Cultural Issue, as Needed in Medical Education, and as Related to Practice or Specialty; see Table 35.

Table 35

### *Self-Care Issues by Interview Participants*

Self-care Category	Number of Responses	Cohort	Specialty	Excerpt(s)
Cultural Issue	22	2005	Neurology	“In the culture of medicine, it is considered kind of uncool to take care of yourself first... I think physicians are not very supportive of their own health or other physician’s health.”
			Family Practice	“The medical training says patients come first. No matter what. And, I have learned that in life, family comes first. Finding the balance is difficult and I don’t necessarily always agree with some of those principles.”
Needed in Medical Education	11	2000	Family Medicine	“Medical education was ‘all in’ - you were and are expected to put training and your life as a physician above all else...your personal needs, your family’s needs, even your physical needs of sleep, rest and going to the bathroom. ‘Suck it up’ best describes it.”
		1995	Unknown	“Medical education taught us the importance of exercise, healthy eating and adequate sleep but did not provide the time or opportunity to

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Related to Practice or Specialty	6	2010	Pediatrics	practice these things. Do as I say but not as I do.”
				“I think that in pediatrics what we teach our patients is it is a lot of family centered care. So I think it would be hard to preach to families, or to teach them to support and take care of yourself, to eat healthy, exercise, and make good connections with your family members if we are not going it ourselves. I think it would be hard to tell patients honestly to do that when we are not taking care of ourselves.”

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The overwhelming theme of responses related to self-care is that it is preached for patients and dismissed by physicians themselves and that this indoctrination begins in medical school. Members of all cohorts mention self-care, or the lack of it, as a major issue within medicine and as a major roadblock to successfully achieving work/life balance. However, the tone of these comments change over time – those in the cohort of 1995 and 2000 speak of self-care more specifically and more prohibitively while those in the cohort of 2010 speak of it as a general social issue, but not as something that has been completely trained out of them.

Members of 2010 also mentioned that the idea of self-care was somewhat supported in residency, which lines up with the changes in work hour restrictions on residency programs that began in 2004.

Closely related to physician self-care is the cultural norm of always placing the patient first. There were 15 responses about the rule of always patient first, ahead of any other obligation including physician health and family, as detailed in Table 36.

Table 36

*Specific Responses Regarding Patient First Rule by Interview Participants*

Cohort	Specialty	Excerpt
2000	Anesthesiology	“Especially as you start in medical school, it doesn’t really seem to matter if you are sick, you still have to show up for work. I do remember one time I did get sick when I was in my third year, or fourth year. I was sick, I went home, I threw up and they called me back to go do whatever it is. They don’t... I mean you are just not allowed to be sick. That’s just what you get used to.”
2000	Family Medicine	“Definitely in your rotations in medical school and in residency - I know there are no longer crazy work hours - but you didn’t matter, eating didn’t matter, going to the bathroom didn’t matter. Step up, if you want to be the best, everything else came second and that was what was expected of you. Anything less than that, like I have to go home to do this or that or if you were to ask to leave after rounds in the morning, ‘why, you need to go and see patients now.’ I mean, it was just looked down upon.”
2005	Neurology	“You should always be working harder. That is kind of a prevailing feeling. Like if you say, ‘I am tired.’ that is a badge of honor. You shouldn’t say you are tired like you need to sleep more, you should be like ‘Yeah, I’m tired because I only got two hours of sleep last night.’”

All comments regarding always patient first come from those in the 2000 or 2005 cohorts. In fact, only one member of the 2005 cohort mentioned it and she was from school A. Either the younger cohorts don’t mention it because they aren’t aware of it as an unwritten rule and just accept it or, more likely, the changes in work hour restriction for residency has created a new paradigm regarding the practical training of physicians for the physician/patient relationship. This very much lines up with the data and comments regarding self-care; indeed, the two are closely linked. Lack of self-care is directed by the cultural value of always placing the patient first.

The question of how these unwritten rules were learned yielded two distinct categories: learned by observation and learned by experience, as shown in Table 37. More often these rules were learned by experience: 16 comments were about learning by observation and 36 were learned by experience, with an overlap of five comments.

Table 37

*Specific Responses Regarding How Unwritten Rules Are Learned by Interview Participants*

Learned By	Cohort	Specialty	Excerpt
Observation	2010	Pediatrics	"I think you learn them by watching those that are ahead of you at every stage: when you are a med student watching the residents, when you are resident watching the faculty members, when you are junior faculty, watching the senior faculty."
Observation and Experience	2005	Anesthesiology	"I have one female partner currently who, she is very vocal about kids stuff and she is always talking about how she just wants, she just feels like she needs more time at home and she needs to be a good mom. I just feel she just talks about it a lot. And the guys, like she has already kind of given herself kind of the stigma of being the lazy one or the, the slacker one. And I know that is not it, I have worked with her for a long time. But she doesn't quit talking about it."
Observation and Experience	2010	Sports Medicine	"Some of it is going to be from trial and error, some of it is going to be from seeing other people learn it."
Experience	2000	Emergency Medicine	"I think part of it you just learn the hard way of just by doing and seeing people's reaction and then figuring, figuring it out. I think some people do that better than others. Those that tend to not care as much about what other people think have an easier time with that."
Experience	2010	Pediatrics	"I think some of the unwritten rules are you don't want to add to someone else's workload to benefit yourself, because everyone is very busy. And so I think that is just one of the unwritten rules is that you don't ask you other people to help you to do things for your personal life. I mean, if it is for work or for patients I think that people are fine with that. But to ask someone

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else to carry a heavier load because you want to do something for your personal life, seems like it is pretty looked down upon.”

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Observation was relegated to those in the 2005 and 2010 cohorts, regardless of institution or specialty. Experience occurred in 8 of 10 participants, independent of cohort, institution or specialty. It is also possible that the line between observation and experience is slight and many instances of observation may feel like an experience to those who witness it and therefore was expressed to the researcher as an experience. Regardless of how unwritten rules were learned, expectations regarding physician behavior is transmitted to each succeeding generation of physicians throughout medical education and training.

### **Workplace Issues**

Data were analyzed for information regarding the workplace context of the participants. Three major issues related to the workplace emerged from the data: male/female perception issues, discrimination, and maternity leave. All three are interrelated and contribute to the struggles female physicians face.

#### **Male Female Perception Issues**

Differences between the ways men and women interact or are expected to behave in the workplace accounted for a significant amount of the workplace struggles faced by female physicians. Only mentioned in three surveys and only by the 2005 and 2010 cohorts, the responses were a hint of what would bear out during the interview process, as shown in Table 38.

Table 38

*Male/Female Perception Issues by Survey Participants*

Cohort	Specialty	Survey Excerpt
2005	Anesthesiology	“Very few men actually give female physicians the credit they deserve balancing work and home. Although my current male partners are great colleagues, I believe some I have known perceive females as less dedicated, etc. when really it's that a lot of men just have more free time! Unlike my male counterparts, ALL of my time is accounted for.”
2010	Internal Medicine	“I feel in medical school and residency there was an even mix of males and females so I thought that being out on my own it would be similar. It's not. At all. I feel like I am constantly surrounded by men that have no concept of what being a woman or a mother is about.”
2010	OBGYN	“The expectations for women and raising their children seem higher than for men who work. It also seems the expectations for women in surgical specialties are higher in order to prove their skills.”

As the participant from 2010 points out, this is not noted as a problem in medical school. Either the academic environment is more egalitarian or women are not perceptive to these types of issues in medical school – or, more likely, it is a combination of both. The same could be said for older cohorts; these cohorts are either more comfortable of these kinds of issues or they don't perceive them to be an issue. The most common place that women face male/female perception issues is in the workforce, not in residency or any kind of clinical training. These perception issues are observed by women and, in some cases, perpetuated by women; see Table 39.

Table 39

*Male/Female Perception Issues in the Workplace by Interview Participants*

Cohort	Specialty	Sample Excerpt
2000	Family Medicine	“I have heard of other female physicians bringing their babies to their office when they are little and that kind of stuff. You don't ever hear that with a man.”
2000	Emergency Medicine	“I think women tend to spend more time with patients and carry more of the personal issues home with them just because of our

		female psyche... Men can more easily drop it and not bring it home.”
2005	Anesthesiology	“I think women, mother or not mother, become empathetic and can see different perspectives. You don’t just see your one selfish perspective and point of view whereas the men, they see their world. They see it from their eyes and that is it. They don’t have the empathy to step outside of their shoes and really see what somebody else is going through. I am using generalities here but I am seeing that females for the most part, we can be more empathetic, we can take into consideration other people’s like feelings in life. I do our schedule and I make sure people are off on their birthdays and their anniversary and they are not on call for stuff like that. I guarantee you no man would ever think of that stuff.”

These issues are also tightly related to the role of spouses in a physician’s life. The role conflict between husband/father and doctor is not experienced, or perceived to be experienced, like it is between wife/mother and doctor; see Table 40.

Table 40

*Specific Responses Regarding Role of Spouses by Interview Participants*

Cohort	Specialty	Excerpt
2000	Family Medicine	“Men on call aren’t worried about who is taking care of their children.”
2005	Neurology	“Yes, most male physicians are married, but their spouses tend to stay at home or work part-time and most female physicians, if they are married, usually their husbands also work... Most male physicians I know have a full time stay at home wife and mom. So, I don’t know any male physicians, maybe I am biased, but I don’t know any male physicians who have to go home at the end of the day and cook dinner, or do their own laundry, or clean their house, or do anything but play with their kid”
2010	Pediatrics	“I think most of the guys that I know who are physicians they do, you know, help around the house and they help with the kids. It is not like they come home and smoke a cigar and read the paper. They are active, but I think the pressure is different.”
2010	Sports Medicine	“Many of my male colleagues that have a female spouse that is in medicine understand the difficulty more about work/life balance. But if it is a male physician, and the wife is a stay at home mom... I don’t think they are going to feel those effects of

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work/life balance as much because they have a spouse that has a lot more time or perceived time.

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As a whole, these male/female perception issues are actually part of larger issues of social roles that manifest themselves in the workplace. Social roles or issues were mentioned by every interview participant, often within expectations of male and female physicians and role conflict between physician and wife/mother/family responsibility, as shown in Table 41.

Table 41

*Specific Responses Regarding Social Role Conflict by Interview Participants*

Social Role Conflict	Cohort	Specialty	Excerpt
Work/Mom	2000	Family Medicine	"I know this from my other female health professionals, we still feel like we have to be able to do it all well. Be a mom, doctor, be a wife, be the PTO chairman, right, like that we can't let anything drop. Whereas men, being more able to do very single minded focus... it is part of a personality type of a male persona. So, I think women kind of struggle more in general because we want to still do it all and do it all well where men are as concerned about the family or outside needs. So they are able to throw themselves 100% in and forget all the other stuff."
Work/Mom	2005	Emergency Medicine	"I think it is different for men than women in that you have that mommy guilt. There is so much mommy guilt. And I don't know if guys just don't experience that or don't feel that but they don't seem to have as much problem working a ton of hours and working Thanksgiving and Christmas and missing recitals, just missing. I don't know why it doesn't seem to bother them as much. But of course, I feel guilty about that."
Work/Mom	2010	Pediatrics	"I think the expectation of a mother is much different than the expectation for a father. A father just kind of has to show up and be nice and be caring and you are a good dad. Like, that is all it really takes, in society's eyes. Whereas a mom, you know, how a child is dressed, how they behave, what types of activities they are in or not in, all of that reflects back on the mother. When those things don't happen, you are looked upon as a bad mother. Or not as good, or

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		maybe putting your career before your kids, and so I think, to me that is the difference. Because I see plenty of guys who in terms of the amount of work they have to do, is probably the same, they probably still have to go home and help feed the kids, or bathe them, or help put them to bed. I think the expectations and pressure are different.”
Work/Family 2010	Pediatrics	“I think as the female one of the more difficult parts is feeling the responsibility of caring for a home and family, or even aging parents, as you become older. That responsibility often falls on the female. So I think it kind of put more pressure.”

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These are not discriminatory issues (discrimination is covered in the following section) but are ways in which a workplace, previously dominated by men, has not fully adapted to women. The expectations of a physician are consistent regardless of gender but do not take into account the societal expectations and pressures that apply unevenly to women rather than men.

### **Discrimination**

Although there was not a direct question in either the survey or the interview about discrimination or gender-based treatment, plenty of participants mentioned it as a major struggle for female physicians as shown in Table 42. Reports of discrimination were evenly distributed by specialty and school. It was, however, mentioned more often by the more recent cohorts, and not mentioned at all by the cohort of 1995.

Table 42

#### *Mention of Discrimination*

Cohort	Mention of Discrimination in Survey	Mention of Discrimination in Interview
1995	0	N/A
2000	1	0
2005	3	6
2010	4	4

All survey mentions of discrimination or unequal treatment based on gender, as shown in Table 43, come from the question ‘What is the biggest struggle facing female physicians today?’.

Table 43

*Specific Responses Regarding Discrimination by Survey Participants*

Cohort	Specialty	Survey Response
2005	OBGYN	“The treatment of female physicians is different than their male counterparts. We have to work twice as hard to have respect and to make our voices heard.”
2005	Pediatrics	“Dress clothes or scrubs, I’m still called ‘the nurse’ quite often when in a patient room.”
2010	Emergency Medicine	“Gender Stereotypes, Pay Inequality”
2010	Internal Medicine	“Pay equality, rampant sexism, burn out”

As intended, the subject of discrimination was expanded within the interview setting. Participants encountered discrimination or unequal treatment from supervisors, other physicians, staff, and patients; see Table 44.

Table 44

*Types of Discrimination Reported by Interview Participants*

Discriminating Party	Number of Responses	Sample Excerpt
Other Doctors	11	“I was on an ortho rotation... ortho was sometimes, depending on where you are, but in a residency can be pretty dominated by men. Based on how it has been forever and so they will make fun of the girls or they wouldn’t let me take call with them because they didn’t want a girl to take call with them. Which was fine, I got to go home early, but I was still mad about it. And one of the ortho residents was a female and she was proficient, confident, all of that. She went to one doctor’s appointment and they joke about it being for an OB/GYN, that she is pregnant. Which she wasn’t... So it’s just kind of a toxic environment sometimes.”
Supervisors	3	“I was not prepared for being treated differently for being a female. I had jokes at my expense for being a female... I have

		had my boss tell me to have more kids so he wouldn't have to pay me while on maternity leave.”
Staff	1	“Sometimes the office staff doesn't take you as seriously because you are woman. Whereas they will say yes sir Doctor Man over there. Whereas Doctor Female they don't necessarily take as seriously.”
Patients	1	“I get called nurse a lot, of course... and patients, you know, the older patients, the male older patients, that doesn't bother me, that is their generation. But it is the younger ones, with that I am like ‘Really? Seriously?’”

Two specific instances of discrimination or unequal treatment emerged from the interviews: improper use of names and titles and issues surrounding maternity leave. (Issues related to Maternity Leave are covered in the succeeding section.) Improper use of names and titles, while not overt sexist behavior, does reflect deeper social norms of appropriate roles for women – roles that do not always include ‘doctor’. Moreover, this comes from all types of encounters in the professional setting – from patients, staff, and other physicians. Perhaps most interesting is the fact that discrimination was not mentioned at all in medical school. For these participants, discrimination within the profession of medicine occurred after they left medical school – in residency or in practice.

### **Maternity and Family Leave**

The most often mentioned issue within the workplace had to do with maternity and family leave issues. As this is closely related to issues of self-care and how unwritten rules are learned, it is not surprising how often it was mentioned. In fact, maternity leave was specifically mentioned in interviews of seven of the eight physicians with children.

Table 45

*Specific Responses Regarding Maternity Leave by Interview Participants*

Cohort	Specialty	Number of Children	Response
2000	Anesthesiology	2	“When you have kids you are expected to go back to work as soon as possible.”
2000	Family Practice	3	“I had a C-section on Monday and I was back in the office the next Monday.”
2005	Anesthesiology	2	“I worked up until 3 hours before I had my first baby and 12 with my second.”
2010	Sports Medicine	1	“As far as maternity leave, that is just abysmal. I had my son at the end of residency and was about to start fellowship and it was, based on cost and [the fact that we were] about to move, I only had two weeks of leave because that was all the days that I had off.”
2010	Pediatrics	2	“The male residents would complain a lot when a female resident was pregnant and out on maternity leave. Their complaint, in a way I can’t blame them, is that their work load gets heavier. They have to do a lot more work because somebody is out and it doesn’t seem fair to them because in residency you are already just so stressed. But then, having been on the other side of it, obviously maternity leave is not vacation by any means.”

These are health care professionals, they know what time is recommended for recovery after childbirth – and yet most took the absolute minimum amount of time allowed for maternity leave. It did not matter the specialty, when in their training or practice they had a child, or their cohort, the stories were very similar: work until the very last possible second and come back as quickly as possible to a full workload. This ties into the aforementioned culture of medicine in which self-care is not important for physicians and that one is not to create additional work for others, both of which is required when a female physician takes maternity leave. A participant from 2005, who does not have children, summed up the struggle this way:

*“And I even found when I was in residency being very resentful of the ones who had to take [a maternity] break, because that just meant I had to work harder for them and there didn’t seem to be any reciprocity for that. So even though I recognize as a woman that it is irrational to feel that way, it still made me mad. Which is horrible because we should be supportive of that. Your primary job should be mom. It shouldn’t be physician. [Maternity leave] doesn’t seem fair, but it is. If I was a mom, I would want more than a few weeks off to be with my baby.”*

Maternity leave as a workplace struggle is not exclusive to medicine. Most of the women in the study were either of child-bearing age or not far from it which makes issues of maternity leave in the forefront of their concerns. Yet combined with male/female perception issues and discrimination, it is clear that workforce issues for female physicians are different than their male counterparts and are of a more personal nature.

### **Work/Life Balance**

The main focus of the research was centered on work/life balance issues for female physicians. All of the aforementioned data regarding context, lifestyle, culture of medicine, and the workplace issues feeds into the information garnered regarding work/life balance issues.

### **Personal Definitions**

All participants were asked for a personal definition of work/life balance as a starting point for gathering information specific to work/life balance challenges. This was their story and their life and a clinical or rigid definition was not imposed upon the participants. Personal definitions were asked for in both the survey and interview and were analyzed separately.

**Survey responses.** Within the survey, participants were asked to give a personal definition of work/life balance, to compare or contrast that definition with their current work/life

balance, and to describe how they retain or regain balance between life and work responsibilities. All three questions were free-response questions and shown on the same page during the survey so participants could see all of their answers as well as build on previous responses. Responses are grouped together by cohort, as shown by Tables 46, 47, 48, and 49.

Table 46

*Work/Life Balance Definition from Survey Responses of Cohort of 1995*

Specialty	Marital Status	Number of Children	How do you define work/life balance?	Compare/Contrast to current work/life balance?
Family Practice	Widowed	2	Being able to leave work responsibilities at work at the end of the day.	90% of the time I am able to leave work responsibilities at the end of the day.
Internal Medicine	Married	2	Getting everything done that must be done in a day	I am spending an inordinate relative amount of time doing paperwork and not with the patient personally
Emergency Medicine	Married	3	I almost have a balance now, but when I was just out of medical school and residency, really all but the last 4 years, I worked 80+ hours a week, plus calls. That's not balance. But it pulled me out of a lifetime of poverty.	Working a mix of shifts that includes 50% night shifts is hard on my body and can lead to depression, especially in winter, when I may not see daylight for a week at times.

One 1995 cohort participant did not answer the questions. Of those participants who did, there is a theme of taking balance one day at a time. When asked about comparing their ideal definition to their lives, one is satisfied with their balance most days, one recognizes that paperwork is keeping her from her patients and therefore from her balance, and one is aware of the health issues which result from an imbalance. All three reported working between 40-59 hours per week.

Table 47

*Work/Life Balance Definition from Survey Responses of Cohort of 2000*

Specialty	Marital Status	Number of Children	How do you define work/life balance?	Compare/Contrast to current work/life balance?
Anesthesiology	Married	2	Enough time for my family while allowing me to have a career.	Too much work. Not enough family time.
Emergency Medicine	Married	3	Keeping up with my day to day family and personal responsibilities while holding down a full time job while keeping some time margins for the unexpected.	I currently have no margins and life spirals out of control if any one little thing goes awry.
Functional Medicine	Married	3	Finding the fit that is right for you, that enables you to accomplish most of your goals and desires for both work and home life without completely sacrificing either.	I feel that I have the best possible job as a physician....I work parttime, take no call, am in a noninsurance based private practice. And balance is still elusive. I have been depleted a lot. It takes a lot of effort and letting go of the "little" things to feel like there is any sort of balance. But I think sacrifice is a better word than balance. Because if you work, you sacrifice something.
Family Medicine	Married	2	Finding a way to be happy and fulfilled in both work and home.	Close most of the time but it has taken a lot of effort and adjustments.
Family Medicine	Married	3	Being able to take time for my family and willing to set time apart for them.	It is close to where I want it.
OB/GYN	Divorced	3	Getting positive energy from personal life to continue working even when work is very stressful	I live in a small town. My children are grown. I am single and alone. There's not enough time with family to nourish my soul,

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so I am moving to where one of my sons lives to spend time with my grandson.

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The cohort of 2000 is more nuanced with their responses. Again, there is a recurring theme of balance being a daily effort. Only two participants – and the only Family Medicine physicians in this group – are comfortable with their work/life balance. These two do not work any more or less hours than the other participants and, given the data provided, are not different from the other participants in any other way. The dissatisfied participants are very forthcoming with their responses, particularly the Emergency Medicine and OB/GYN physician, giving a very clear picture of the havoc which work/life imbalance brings to their lives.

Table 48

*Work/Life Balance Definition from Survey Responses of Cohort of 2005*

Specialty	Marital Status	Number of Children	How do you define work/life balance?	Compare/Contrast to current work/life balance?
Anesthesiology	Married	2	Being fully present and available to either my patients or my family when I'm with either. Most importantly, not missing out on my children's childhood.	It takes continuous effort to not fall too far to either side at the expense of the other. At this stage of my kids' lives, with my current job, I feel I am managing the balance pretty well. A difference I notice between myself and some male colleagues is that when my job is done, I leave the hospital. That's it, I'm not the one to stick around for small talk or busy myself at the hospital.
Child Psychiatry	Married	2	The overall personal satisfaction and fulfillment in a person's work and personal time	I try to balance everything, but I am not happy with my current balance and meet many burnout

			without consistent symptoms of burnout, compassion fatigue, etc.	symptoms because of work demands.
Neurology	Never Married	0	Getting work done enough to make a living, then being able to live life outside of work.	I work too much and sometimes I'm not even sure what for. For stuff? To live in a nicer house? I can't travel because I'm in solo practice, so there's no reason to work so much.
OB/GYN	Married	1	Quality time spent with family vs work	Don't balance it well
OB/GYN	Married	3	Healthy balance of work and home life that is productive and functional with minimal toxic stress	It's close
Pediatrics	Married	2	Family first then job second but enjoying both those areas of life and finding satisfaction in them.	Well
Pediatrics	Married	2	Making sure I spend enough time at work-at my job, with my patients, doing the work I went to school to do; and still spending enough time, quality time, with my husband and my kids.	It's pretty good. I think I do a good job balancing work with home life.

The 2005 cohort is more confident about what work/life balance means to them and look at balance from a holistic perspective. This is not a day-to-day issue for them, but rather a broader lifestyle issue. They are also either happy or not happy with their own personal balance, with four reporting satisfaction with their personal balance and three reporting dissatisfaction. The breaking point for satisfaction in this cohort is somewhat related to working hours – all of those who reported dissatisfaction work over 50 hours a week. Yet one of the Pediatric physicians also works over 50 hours a week and reported satisfaction with balance, so there is

not an exact relationship between working time and satisfaction with work/life balance. One participant did not answer these questions in the survey.

Table 49

*Work/Life Balance Definition from Survey Responses of Cohort of 2010*

Specialty	Marital Status	Number of Children	How do you define work/life balance?	Compare/Contrast to current work/life balance?
Emergency Medicine	Never Married	0	Well balanced	Relatively the same
Internal Medicine/Hospitalist	Married	1	Having enough time to take care of my family which includes quality bonding time and then being able to do well at work and care for patients without constantly yearning to be at home.	The weeks I am at work I feel like I miss an entire week of my daughter's life. 7 on/ 7 off, 7a-7p
Internal Medicine/Hospitalist	Married	1	For me, work-life balance means that neither aspect suffers because of the other. Basically standing on the middle of a see-saw trying to keep them even.	It think I am doing a pretty good job keeping it balanced. Extremely busy inpatient weeks can be tricky though.
OB/GYN	Never Married	0	Ability to be there for your patients without letting your family or social life suffer.	It's a struggle but I feel that I am successful at achieving this balance.
Pediatrics	Married	2	Ability to take care of myself and my family while maintaining a quality clinical practice.	Work takes up more time than I would like.
Pediatrics	Never Married	0	The ability to separate from the stress of work and enjoy activities and hobbies that are important to me. I must learn to prioritize when I need to push myself to	I always have more that can be done at work. The balance comes in understanding that I cannot sustain efficient work if I do not rest and recharge. I always am aware of the work that is left to be done,

			work or take time away for rest and recharging.	but also realize work will always be there and life opportunities may be limited.
Sports Medicine	Married	1	Being happy at work and feeling like I have enough family time.	It is always a struggle with deciding to finish charts vs spending more time with my family. Typically I choose my family and forgo a traditional lunch break to finish charts.

The 2010 cohort also has a more global view of what work/life balance means. There are two participants which express some dissatisfaction about their own personal work/life balance, but overall the cohort is satisfied with their balance. This cohort works the most hours – all report over 40 hours a week, with four over 60 hours a week – and has the least amount of children.

There are two major trends from the survey responses. The first is a gradual change from perceiving balance as a day-to-day issue to a holistic time management issue – or from an acute to chronic condition requiring management – over time. The second is that those who are younger express more comfort with their work/life balance even though they report working more hours. This trend comes with a caveat – these women are less likely to be married or have children, both of which add complications to achieving work/life balance.

**Interview responses.** Within the interview, the question asked was ‘What does work/life balance mean to you?’ and the responses are listed Table 50.

Table 50

*Specific Responses Regarding Work/Life Balance Definition from Interview Participants*

Cohort	School	Specialty	Marital Status	Number of Children	Personal Definition of Work/Life Balance
2000	A	Anesthesiology	Married	2	"Able to do the things in your life that are important to you at the same time as being able to earn a living and have a lifestyle that you enjoy."
2000	A	Family Medicine	Married	3	"I have three children and work life balance for me means being able to provide the best care for my patients, making sure I am in the office enough so that I can address their needs and do what I need to get done and balancing that with being able to be there for the needs of my children, being able to be at any important events that they have, school, or being able to attend their after school activities. Being able to have some days off with them so that I can still drop them off and pick them up, so they don't have to go to after school all the time."
2000	B	Emergency Medicine	Married	3	"For me it is still being able to work full time and have a family full time. Or being able to be involved in both places and be present and active in both things."
2005	A	Neurology	Engaged	0	"I would define it as... I would call it a struggle between personal life and professional life. "
2005	B	Anesthesiology	Married	2	"I think for me it is setting boundaries and being able to kind of filter out what is relevant, what matters and what doesn't... just being present when you are either at home or at work and trying to separate the two."
2010	A	Pediatrics	Married	2	"Work-life balance is being able to go to work, enjoy your work, feel

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					like you are doing a good job while you are there, but then being able to set it aside and be with your family. Especially at the important times and big events but also for small events like being home for dinner and getting ready for bed, and all those little things that build your life. So to me that is work life balance.”
2010	A	Sports Medicine	Married	1	“If I can come home at an hour I am happy with from work and still get to hang out with my three year old son and my husband. To where it is not too late where he has to go to bed and we can still do things and I am not plagued by thinking about work when I am at home.”
2010	A	Pediatrics	Single	0	“I try to finish whatever is urgent by the end of the day before I leave.”

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All but two participants gave a general definition or example as shown in the above chart.

The missing two gave me a rundown of a typical day and immediately launched into struggles.

Their responses are analyzed in the following sections regarding struggles, coping mechanisms, and successes.

### Struggles

Participants in both the surveys and interviews mentioned specific struggles that keep them from achieving optimal work/life balance. Struggles were grouped into categories of boundaries, children, family, guilt/emotions, health/self-care, patient care, stress, time commitments, volume of work, and working on off times and are shown in Table 51.

Table 51

*Work/Life Balance Struggles*

Struggle	Number of Survey Responses	Number of Interview Responses	Total Number of Responses
Boundaries	0	10	10
Children	4	19	23
Family	16	11	27
Guilt/Emotions	8	15	23
Health/Self-care	4	9	13
Patient Care	4	11	15
Stress	4	6	10
Time Commitments	7	31	38
Volume of Work	9	13	22
Working on Off Times	1	7	8

Some of the struggles discussed were tagged with overlapping categories, as most of these struggles are interrelated. Therefore, excerpts were tagged with multiple codes within the struggles parent category resulting in 189 codes for 120 excerpts. Table 52 shows the co-occurrence of struggles. Analysis follows as struggles are grouped by occurrence and relatedness: time commitments; children, family, patient care, volume of work, and stress; and boundaries, stress, health/self-care, and working on off times.

Table 52

*Co-Occurrence of Work/Life Balance Struggles*

	Boundaries	Children	Family	Guilt/ Emotions	Health/ Self-care	Patient Care	Stress	Time Commitments	Volume of Work	Working on Off Times	Totals
Boundaries	N/A	0	0	3	0	2	1	1	2	1	10
Children	0	N/A	3	6	1	1	1	9	2	1	24
Family	0	3	N/A	3	2	3	1	3	3	1	19
Guilt/ Emotions	3	6	3	N/A	0	6	0	5	1	0	24
Health/ Self- care	0	1	2	0	N/A	2	0	0	1	0	6
Patient Care	2	1	3	6	2	N/A	0	4	1	0	19
Stress	1	1	1	0	0	0	N/A	4	3	0	10
Time Commitments	1	9	3	5	0	4	4	N/A	5	2	33
Volume of Work	2	2	3	1	1	1	3	5	N/A	1	19
Working on Off Times	1	1	1	0	0	0	0	2	1	N/A	6
Totals	10	24	19	24	6	19	10	33	19	6	

**Time commitments.** The struggle of finding time for all of the commitments held by participants was the number one struggle mentioned; see Table 53. Time is finite – after all, there are only 24 hours a day – so it unsurprising that this is commonly the crux of the work/life balance issue.

Table 53

*Specific Responses Regarding Struggles with Time Commitments*

Cohort	Specialty	Sample Excerpt	Other Categories
2000	Family Practice	“Being a physician also means you do have a lot of work hours. And highly demanded work hours. One of the harder things is when you get phone calls and having to tell the kids, ‘Be quiet, I gotta answer this.’”	Children, Working on Off Times
2000	Emergency Medicine	“One reason I have gotten myself into having trouble with work life balance is I don’t want	Guilt/Emotions

		to say no and I want to be able to do everything for everybody.”	
2000	Anesthesiology	“When you have children and they get in school, it is hard to balance their time in school because many of the things you don’t know about until a couple of weeks before and my schedule is just not that flexible.”	Children
2005	Neurology	“You don’t really realize out of 168 hours a week when you are working half of that, it’s hard to take care of all the other stuff in life.”	Volume of Work, Stress
2010	Sports Medicine	“[I wish I had known in medical school] how important time management was going to be. I mean they always harped on about us studying but as far as work life balance that you want to get home and you don’t want to have to do more work, so you have got to be proficient with your notes, understanding how the [electronic medical record system] works. But then you don’t want to come home and just do all your housework and not see your kid.”	Volume of Work
2010	Pediatrics	“There are times that there are events or things for my kids that I need to go to, and I just know though I am going to have a bunch of charts that will be late or people that I should be corresponding with that I don’t correspond with on time. And then if there are times where I feel like I have sick patients or patients that really need my attention, then I have to kind of put the kids aside and stay later at work and try to catch up and do all that. So, I don’t know that I have found a balance yet, but it is what it is.”	Children, Guilt/Emotions, Patient Care

Only a few samples have been given here, but they are representative of the types of time commitment issues raised by physicians. Through these examples it is clear that by participating in multiple roles simultaneously – physician, mother, functioning adult in society – time pressures of each role impact the other and is what creates balance issues.

**Children, family, patient care, volume of work, and guilt/emotions.** The next most common issues related to work/life balance struggles are children, family, patient care, volume of work and how those intersect with guilt or emotions.

Table 54

*Specific Responses Regarding Struggles with Children, Family, Patient Care, Volume of Work, and Guilt/Emotions*

Cohort	Specialty	Sample Excerpt	Categories
2000	Anesthesiology	"It is hard to balance family life, I think. As much as you try to, there is just stuff that you would like to do with your children, that you just miss. Especially when they are younger."	Family, Children, Guilt/Emotions
2000	Family Practice	"[I am] still managing to maintain the family and work dynamic; although my husband is very helpful, a lot of the responsibility for the kids/house still fall on me in addition to working full time."	Family
2005	Child Psychology	"The increasing non-medicine demands of medicine (clerical, charting in particular ways, billing, insurance companies) makes medicine much less fulfilling. There are already many family sacrifices for women in medicine, and these added pressures make the sacrifices made for medicine seem not worth the time given."	Volume of Work, Family
2010	Pediatrics	"I haven't figured that out yet. So typically what I will do when I feel like I have been very busy with work, and I haven't been able to see my kids as much as I want, usually I will just make a conscious decision that work is not going to get done and I set it aside and I'll go do things with my kids and take care of them. But the whole time I am doing that, in the back of my mind I am thinking about all the work that is piling up."	Children, Volume of Work, Guilt/Emotions
2010	Internal Medicine	"I work one week on, one week off so I try to have the majority of family functions on my week off. I work extremely hard while I am at work so that I will be able to pick my daughter up from school and be at all the functions that I need to. Sometimes, I will go back to the	Family, Boundaries

		hospital after she goes to sleep for the night so that I can maximize my time with her.”	
2010	Pediatrics	“Knowing your limitations, I would say is really important. I know at the end of the day I can only do so much to help this particular patient, and gauging is there something else I can do that would make that patient better or am I just wanting this patient to be better and getting more involved because it satisfies myself?”	Patient Care, Boundaries, Guilt/Emotions

It is interesting that these are the next most common themes because they too are related to simultaneous roles and the emotional toll that exacted on the participant. Just like those excerpts related to time commitments, these struggles are not in a vacuum – they are interconnected. Volume of work and patient care, or professional responsibilities, are often at odds with children and family, or personal responsibilities. The time commitment aspect often creates a zero sum game between the two types of responsibilities, creating emotional conflict or feelings of guilt.

**Boundaries, stress, health/self-care, and working on off times.** The concepts of boundaries and stress are connected to the realities of working on off times and health/self-care. Although these aspects of work/life balance struggles were reported the least, they are still important considerations in understanding struggles faced by female physicians.

Table 55

*Specific Responses Regarding Struggles with Boundaries, Stress, Health/Self-Care, and Working On Off Times*

Cohort	Specialty	Sample Excerpt	Categories
2000	Emergency Medicine	“We want to be compassionate and concerned for our patients but we also have to know our boundaries and protect our own families and be present and not worried about something	Boundaries, Guilt/Emotions, Patient Care

		else when we are trying to spend time with our families.”	
2005	Pediatrics	“Work and family balance and the constant struggle between the two and making sure you can be flexible and roll with the punches. Not sure many people understand the work stresses and the boundaries when seeing you out in public with your family.”	Family, Stress, Boundaries
2000	Family Practice	“Taking me time is probably one of my biggest struggles. Because my focus is on my kids when it is not here.”	Children, Health/Self-care
2010	Sports Medicine	“I don’t chart when I am home because I don’t want to bring work home.”	Working on Off Times, Boundaries
2000	Family Medicine	“There is a third variable too - that is me and it is almost like-- I don’t know if you have ever seen in physical therapy, they have this thing that you can stand on that if you need to help with your balance it helps you and it is not a strict back forth, it is circular and spherical. Kind of like a round ball underneath and you have to try and balance yourself on that. And so I always feel like things are tipped towards me sacrificing my ownself for maintaining the balance between work, and caring for my family. So I don’t think that I do a good job at protecting my own needs.”	Health/Self-care

These categories are the most related to the physician themselves and not others; in essence, these are internal struggles. As the participant mentioned above, the focus is on everyone else in the physician’s life and not them. As such, issues of boundaries or not working on off times or self-care are often delegated the lowest priority when attempting to achieve work/life balance and it is therefore unsurprising that they are mentioned the least.

### Coping Mechanisms and Successes

As great as the work/life balance struggles can be for female physicians, these women have developed amazing coping mechanisms for attempting a successful work/life balance. Some participants related successes regarding figuring out work/life balance for their situation.

In response to the question ‘How does your current work/life balance compare/contrast with your definition of work/life balance?’ nine survey participants answered positively as shown in Tables 56 and 57.

Table 56

*Work/Life Balance Success Reported by Survey Participants*

Cohort	Total Survey Participants	Participants Reporting Success	Success Percentage of Total
1995	4	1	25%
2000	6	2	33%
2005	8	4	50%
2010	7	2	29%

Table 57

*Specific Responses Regarding Work/Life Balance Success from Survey Participants*

Cohort	Specialty	Sample Question Response
1995	Family Medicine	“90% of the time I am able to leave work responsibilities at the end of the day.”
2000	Family Medicine	“It is close to where I want it.”
2005	Pediatrics	“It's pretty good. I think I do a good job balancing work with home life.”
2010	Internal Medicine	“I think I am doing a pretty good job keeping it balanced. Extremely busy inpatient weeks can be tricky though.”
2010	OB/GYN	“It's a struggle but I feel that I am successful at achieving this balance.”

The later the cohort, the more successful these women felt about their work/life balance, with a peak in the 2005 cohort and then a regression in the 2010 cohort. This is possibly a reflection of the amount of time spent figuring out coping mechanisms and navigating workforce and family issues to create balance.

Building on this information, specific coping mechanisms for success were detailed by interview participants. Coping mechanisms were grouped into boundaries, changed jobs,

changed priorities, Facebook group, other change, self-care, and workplace support; see Table 58.

Table 58

*Work/Life Balance Coping Mechanisms*

Coping Mechanism	Number of Survey Responses	Number of Interview Responses	Total Number of Responses
Boundaries	17	18	35
Changed Jobs	0	6	6
Changed Priorities	9	11	20
Facebook Group	0	6	6
Other Change	1	3	4
Self-care	9	9	18
Workplace Support	5	29	34

Sample responses are given in Table 59 for each coping mechanism.

Table 59

*Specific Responses Regarding Coping Mechanisms*

Cohort	Specialty	Coping Mechanism	Sample Response
2005	Neurology	Boundaries, Workplace Support	“I am in private practice, so I have the opportunity to limit my patients, limit my hours, I could stop taking new patients.”
2005	Pediatrics	Boundaries, Workplace Support	“By working part time so I can spend time with my children and keeping a good attitude at work and investing in the people I work with as well.”
2005	OB/GYN	Boundaries, Self-care	“Learn to draw boundaries early. Be competent and good at your job without trying to overachieve constantly. Dedicate your mind to subjects outside medicine”
2000	Functional Medicine	Boundaries, Changed Priorities	“In our current medical system, you have to be very clear that it is ever changing and that it won't look the same in 5, 10 or even 20 years. What you think it is going to be, it will not be. Being a physician is a stressful job, period. You have to learn to set your own boundaries and be good with them, even if others don't like it. You must decide what your priorities are and seek

			<p>that job. Don't sell your soul to make a lot of money unless you understand that you are trading your free time for it. Be willing to do something different in your job if it means having the balance that you desire.”</p>
2010	Pediatrics	Boundaries, Changed Priorities	<p>“So typically what I will do when I feel like I have been very busy with work and I haven’t been able to see my kids as much as I want, usually I will just make a conscious decision that work is not going to get done and I set it aside and I’ll go do things with my kids and take care of them.”</p>
2010	Pediatrics	Self-care	<p>“I take time off during the week to exercise, eat healthy, spend time with friends, and engage in spiritual reflection on a regular basis. The routine of my hobbies and outside life keeps my balance in work and life.”</p>
2000	Family Practice	Self-care, Changed Priorities	<p>“I have learned that work and kids I have to have some sort of volunteer activity and I need some sort of creative outlet... I have to have that balance. And if I don’t, then I get a little out of whack.”</p>
2005	Anesthesiology	Self-care	<p>“I just know that there are going to be busier times and it will get better. It is not going to stay like that forever, or there are days off in the horizon. Just being patient about it.”</p>
2010	Pediatrics	Changed Jobs, Workplace Support	<p>“Actually I looked at a job at [another academic institution]. They had an excellent group of people that were all very nice, very well known in their field and my family still lives [close to that school] and I was like, ‘Oh, that is great. The kids could grow up with grandparents.’ But the big reason why I did not go there is because not a single one of them had kids or understood. They were all either married and childless or single, and so even though it is a prestigious institution and I would have been closer to my family, I had the feeling that if I went there and if I said, ‘Hey will you guys cover me for two hours because my kids is singing in a play in the middle of the day’, I don’t think I would have the same response. It wasn’t anything</p>

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			I was able to discuss outwardly with them but it was just a feeling that I got and so it, it played a big part in me choosing to not go there and choosing to come here instead."
2010	Sports Medicine	Changed Jobs, Workplace Support	[She was moving and switching jobs in the next month] "At this new office, there is a mix of family medicine, pain management, ortho and sports medicine and so there is a better mix of female physicians who aren't surgeons... It is a tighter knit group. I am just coming on, they want me to succeed, they want me to make money for myself as well as for them. So it was a big factor in deciding to change jobs because I don't feel very supportive in my current, in my current position. And I feel like I'll be more supported there."

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Whereas weak boundaries can cause work/life balance struggles, strong boundaries can be an excellent coping mechanism. Changes in priorities and jobs, specifically to situations where women feel more supported or which allow for more individual self-care, are crucial. Unlike the above coping mechanisms, the Facebook Group and Other Changes were not interconnected with other coping mechanisms. Three participants, one from 2005 and two from 2010, mentioned a Facebook group called Physician's Mom Group or PMG. This is a closed group which is only available to female physicians where women can seek support for a wide range of issues, including work/life balance issues. Interestingly enough, it was started by a female DO physician who graduated in 2007 and currently works in California (PMG, 2016). Other changes were often specific to the individual physician and were centered around some kind of change in support from a spouse or significant other which was making work/life balance easier. Being a female physician is not impossible, but as these comments show, does require creativity and coping mechanisms to keep going.

## **Discussions with Other Women**

Many participants revealed that conversations with other female physicians was an avenue for support and for gathering ideas about how to achieve work/life balance, as shown in Table 60. This was reported to be most formative during medical school and in practice, each detailed with 10 responses.

Table 60

### *Specific Responses Regarding Discussions with Other Female Physicians*

Timing	Cohort	Specialty	Excerpt
Med School	2010	Pediatrics	<p>“At one of those meetings actually we did have one of those pathologists, I forgot which one, came and talked to us and then that was when she was talking to us about when she was in residency and doing nanny sharing and the different ways that they coped, and then just the whole mommy guilt. And having older kids and knowing that the kids didn’t resent them and the kids went ahead and they grew up just fine without any problems and not to feel guilty, things like that. It was like an after class thing. It was something that the student government put together where they had a panel. So it wasn’t specifically about work-life balance, I think they were just there to kind of talk about pathology, but [work/life balance] came up as part of the reason why they wanted that.”</p>
Med School	2000	Family Medicine	<p>“I did three months my third year and two months my second year out there [rotating with a female doctor in rural Texas]. I got to see her and some of the life balance there and that helped, especially since I always wanted to do small town medicine.”</p>
Med School	2010	Pediatrics	<p>[Talking with a female physician on rotations] “I wasn’t even with her for very long. But I remember because I knew I was interested in pediatrics and she was working part time at that time and before clinic, we were just talking and she told me in very real terms of what is it like trying to be a mom and a physician and that was part of the reason why she had decided to be part time and how it is difficult to be part time. The whole conversation was maybe 15</p>

			or 20 minutes long. But everything that she said to me at that time like stuck with me.”
Residency	2005	Anesthesiology	“My attendings were split down the middle female and male. The women all taught me a lot regarding this [work/life balance] struggle.”
In Practice	2000	Emergency Medicine	“I can say that later in my career, in fact just recently, in emergency medicine, they have a woman’s emergency medicine physicians special interest group. At the last conference I went to I was interested in going to that but I didn’t know it was going on until I got there and the space was all full. So I didn’t get to attend.”
In Practice	2005	Emergency Medicine	[About the Facebook group] “It is interesting to hear, it is, I guess, comforting to hear people go through the same issues that you are going through and know that it is not [just you]. Because it is not something that is really openly discussed between people.”
In Practice	2010	Pediatrics	[About the Facebook group] “I have found it to be an excellent resource in sort of every stage - it’s only been around for a couple of years... And it has been so eye-opening and really almost addicting to read it. To see the struggles of other physician moms and how they deal with it. It is a community where it is a social media, but it is a safe place. I know a lot of physicians have to be careful what they put on social media because a patient might see it or a coworker might see it or something, but this is a safe place where when people have a bad day at work, you know there is a bad outcome, they can come vent a little bit. When they feel guilty, they can come vent. When they have a good day, they can come vent. Or talk about frivolous things like what kind of shoes around the hospital that are comfortable... I have found that to very helpful.”
In Practice	2010	Pediatrics	“All of [the other physicians] have families, so we frequently talk about family life and how to balance that. I mean it’s an ongoing conversation here, especially because pediatrics is very, I would say, very family supportive.”

Here the impact of the aforementioned Facebook group Physician’s Mom Group is very apparent. For those women who don’t have close ties or access to other female physicians for

face-to-face interactions, a social media outlet is the perfect substitute to build relationships and share experiences with other physicians. Regardless of the method, talking with other female physicians is both formative during training and sustaining during practice. It is an important resource for female physicians to build support and community, especially with regards to the work/life balance issues.

### **The Impact of Time**

Several participants, in both surveys and interviews, mentioned the impact of time in handling work/life balance issues. A general feeling of ‘I needed time to figure it all out’ permeated these responses, as shown in Table 61.

Table 61

*Specific Responses About the Impact of Time*

Response Type	Cohort	Specialty	Excerpt
Survey	1995	Emergency Medicine	“I think it's better now than 20 years ago.”
Interview	2000	Family Medicine	“I have molded [my patient load] that way. But it has taken a while for me to find the right balance.”
Survey	2000	Family Medicine	“I feel like current medical students are all about work/life balance; their expectations are very high and their request for compensation and work hours show that they want to have the best of both worlds -- unfortunately, there is still something to be said for working hard at the beginning of your career in order to earn the flexibility of things later.”
Survey	2000	Family Medicine	“[Obtaining optimal work/life balance is] close most of the time but it has taken a lot of effort and adjustments”
Interview	2000	Emergency Medicine	[With regards to schedule adjustments] “I wish I would have done it sooner.”

All of these types of responses came from women in the 1995 or 2000 cohort, regardless of marital status or specialty. This is to be expected as they have had the most time working as a

physician. They are in the best position to reflect on their choices, including their career and family, and see a longer arc of the effects of work/life balance issues. It is also interesting that these are the same cohorts who still see work/life balance issues as a daily struggle – they can see the long arc of time, but rely on day-to-day planning to make it all work. The only participant who alluded to the impact of time from the cohort of 2010 commented “I haven’t figured that out yet” – in that she expects to refine her both work/life balance challenges and strategies as she progresses in her career.

### **Summary**

Data were collected from surveys and interviews with participants and documents and records from institutions. This data was then analyzed piece by piece for themes directly and indirectly related to work/life balance. When the data were analyzed together, particular themes arose which created context to work/life balance issues, particularly related to the culture of medicine, lifestyle issues, and workplace issues. The next chapter will discuss these findings and provide future recommendations based on the research.

## **CHAPTER 5: DISCUSSION**

### **Findings and Recommendations**

This study sought to enhance the current literature by examining work/life balance issues for female physicians and how those issues might be mitigated, beginning with medical education and continuing through medical practice. This chapter will provide a summary of findings from this research, discussion of why this study is influential to existing research, and provide recommendations for female physicians across their career.

#### **Summary of Findings**

Through the data analysis process, themes began to emerge from the data. The themes of context and lifestyle issues, culture of medicine and workplace issues, and work/life balance issues are key not only for analysis, but for understanding the significance of this research within the context of existing literature and theory and for providing recommendations.

#### **Context and Lifestyle Issues**

A key part of answering the first research question regarding work/life balance issues was to understand the environment in which participants worked and lived. To that end, marital and family situations, including domestic support, marital status, and children, specialty choice, and financial compensation created context for work/life balance issues, but do not overwhelmingly account for why these balance issues exist. It appears that being a female physician creates balance issues, regardless of what else is happening in their lives. In particular, marital status and the number of children do not seem to impact the amount of stress expressed by the participant; rather the participants were expectant of the stress a family might bring and instead placed the blame for increased stress on other factors, including professional responsibilities. In addition, the privilege associated with a higher paying profession like medicine allowed participants to outsource domestic help to other family members or paid service providers.

Essentially, these participants had more money than time, and often paid for services in order to spend more time on life activities. As one participant justified her use of paid housekeeping services, “I would much rather spend the evening with my kids than running around cleaning bathrooms”. Here the emphasis is on how work can provide for life outside of work – regardless of what that life entails or how much stress accompanies their work.

In order to understand the work context, specialty choice, educational institution, cohort, and workload were examined. While anticipation of lifestyle issues did impact the decision to pursue a specific specialty, specialty itself was not a determinant in work/life balance issues with these participants. Although the two institutions are similar – both are osteopathic schools in the same area of the country – they each followed a different curriculum model and had different ratios of female students and faculty. However, where a participant was educated did not impact the work/life balance issues faced by the participants. Cohort, rather than institution, was more impactful on work/life balance issues. The older cohorts also seem to have figured out the best work/life balance for their situation, yet they expressed day-to-day challenges rather than systemic challenges of work/life balance. The younger cohorts are still chasing dreams – working longer hours, taking on leadership roles at work, and parenting younger kids – while the older cohorts are more settled into life. The younger the cohort, the more likely to view work/life balance struggles as a systemic issue, to report and stand up against issues of discrimination, and to report financial concerns regarding the cost of education versus the payment of the profession. Cohort, more than any other contextual factor, was predictive of how they viewed their personal work/life balance situation.

## **Culture of Medicine and Workplace Issues**

In response to the second part of the first research question, which specifically pertains to the perception of how these challenges affect male and female physicians differently, participants were very open about how work/life challenges were perceived to be different for female and male physicians. All of the participants were devoted to both work and personal pursuits and found identity in both of them – a conflict that uniquely affects women (Stone, 2007) – and which sets them apart from their male colleagues. All participants noted differences in social role expectations for male and female physicians, and how the double standard for women to excel at both work and home placed an additional burden on female physicians, reinforcing the literature of Mitchell, Bowman, and Frank (2002) and Wharton (2012). This conflict is also a reflection of Eagly's Social Role Theory (1987), used as a theoretical framework for this research and supported by the data regarding the challenges of fulfilling social roles which, at times, clash. One participant perfectly summed up the way these personal and professional responsibilities are felt differently by saying “Men on call aren’t worried about who is taking care of their children”.

Issues within the workplace, specifically male/female perception issues, discrimination, and maternity leave, were all mentioned as well as issues within the greater culture of medicine, most specifically issues of physician self-care and always placing the patient first. In particular, the younger cohorts reported more discrimination in the workplace, including improper names and titles and direct discrimination by peers and supervisors. Maternity leave was the most often mentioned workplace and cultural issue, with understood expectations for female physicians to return to work as quickly as possible, regardless of cohort, specialty, or when they had their

children. These cultural issues were reported to create hardships that impact work/life balance struggles for female physicians differently than their male peers.

This research is important because it connects issues of work/life balance to medical education, specifically for women. While there are numerous studies regarding work/life balance issues for working physicians and regarding medical education, few bridge the gap between medical education, gender, and workforce issues. This was the goal of the second research question – to understand the links between medical education and work/life balance challenges for female physicians. As reported in this study, women tend to experience supportive medical education environments, as there was little reporting of discrimination by faculty, administration, or other students. Furthermore, for the participant who balanced parenting and medical school, she reported the school was very willing to work with her to complete her rotations and graduate on time while adjusting to motherhood. As this study was limited to two osteopathic institutions, this could be a reflection of the philosophy and history of osteopathic medicine, the kinds of faculty drawn to osteopathic medicine, the cultures of the institutions themselves, or other unknown variables not revealed in the research. It may also be a reflection of the impact of Title IX on creating an egalitarian educational experience for all students at all levels of education. Either way, this research suggests that medical education is leading the way forward for gender equity within medicine.

Where the search for equality breaks down is in the workforce. As there are still more male than female physicians in practice (Association of American Medical Colleges, Center for Workforce Studies, 2015), women are more likely to face isolation (Humphrey & Smith, 2010) and gender discrimination and sexual harassment in the workplace (Coombs, 1998; Freeman, 2007). The existing literature was reinforced by this research. Women in this study not only

encountered gender discrimination in the workplace, they felt distanced from their male colleagues in terms of social role expectations. These women felt requirements for their home life that were not perceived to be felt as acutely by their male peers, leading to more stress and greater work/life balance issues. Medical school, with its supportive educational environment, did not prepare them for this reality. As one participant noted,

*“I feel in medical school and residency there was an even mix of males and females so I thought that being out on my own it would be similar. It's not. At all. I feel like I am constantly surrounded by men that have no concept of what being a woman or a mother is about.”*

This research highlights the need for men have a greater understanding of the challenges specific to women, to work with female colleagues to create supportive work environments for all, and for medical education to provide outlets for discussion regarding some of these work/life balance issues earlier in physician preparation programs.

### **Work/Life Balance Issues**

The lifestyle, workforce, and medical culture themes really set the stage to answer the originating question of this research. The first research question sought to understand the work/life balance issues currently facing female physicians and how female physicians managed these challenges. Although work/life balance struggles impacted all participants, some struggles were reported more often than others. The time commitments for both work and family life were cited as the most common cause of work/life balance issues, followed by children, guilt/emotions, family, patient care, and volume of work – all of which are in line with the literature of Allen and Bowman (2002a), Blair-Loy (2003), Epstien, Seron, Oglensky and Saute (1999), and Offer and Schneider (2010), to name a few. The fact that time is a “zero-sum game”

(Bianchi and Wight, 2010) because once spent, is gone forever, creates additional pressure for competing time commitments. As one participant remarked, “Unlike my male counterparts, ALL of my time is accounted for”. As such, participants reported various coping mechanisms and successes in their pursuit of work/life balance. These included establishing clear boundaries, workplace support, family support, changing priorities (and therefore time commitments) to what they deem important, and practicing self-care – all of which are also in line with the literature of Aumann and Galinsky (2012), Carr, Gareis, and Barnett (2003), Humphrey (2010), and Launer (2006). In particular, having support networks of other female physicians was especially beneficial to participants – reinforcing a point made found in literature by Humphrey and Smith (2010) – regardless of the medium of support, be it in the workplace or via social media. Participants also recognized the importance of time, in terms of years, to be able to figure out work/life balance issues for their situation as well as to handle changing issues across the lifespan. Clark’s Work/Family Border Theory (2000), used in this research as a theoretical framework for gathering and analyzing data, was corroborated by the participants’ experiences of navigating and balancing the borders between work and family life and how that works for each individual situation. All other factors notwithstanding, the more support reported by a participant (either at work or at home) and the clearer the boundaries between work and life, the better the work/life balance for the participant.

### **Recommendations**

Combining existing literature with this research, recommendations are offered for both medical education and training and the workforce for both women and men. These recommendations also answer the second research question pertaining to realistic programming ideas for medical education regarding work/life balance issues. These recommendations extend

beyond medical school and are intentionally general, as all recommendations must be adjusted to fit within the existing culture of an institution or the individual situation of a physician for optimal impact.

### **Improve Existing Supports in Medical School**

As medical school is the entry point into the profession and culture of medicine, it is a prime place to begin the discussion of recommendations. The espoused curriculum of medical school is already tightly packed with the technical and scientific knowledge needed to be a physician. Therefore, all proposed recommendations are for the co-curricular groups, activities, and interactions of the hidden curriculum on campus. The hidden curriculum, or enacted values of administration, faculty, and clinicians, is still the primary route for most professional development in medical education (Cooke, Irby, & O'Brien, 2010). Following Sanford's Theory of Challenge and Support as described by Patton, Renn, Guido and Quaye (2016), students thrive best when challenge and support are balanced in an educational setting. Medical school provides plenty of challenge but could be more supportive, particularly for female students who already experience the strain of medical education in ways different than their male classmates (Coombs, 1998). As conversations with other female physicians was given as a main avenue for support within this study, the goal for all of these recommendations is to formally and informally strengthen social networks and supports for female medical students, setting them up for a professional life with established, strong social networks.

**Groups and organizations.** Both institutions in this study had organizations specifically for female students available for all cohorts. However, only those in the cohort of 2010 remember participating, or even considering such an organization a benefit. Therefore, it is important to strengthen the existing women's organizations on campus. This will take active

engagement with other student organizations – a student senate or government or class officers, for example – and with student affairs professionals to increase visibility and engagement of female student groups. These student groups are often part of national groups, which may be able to offer organizational or financial support to institutions to strengthen student groups. Having a strong female student group on campus will help facilitate the following recommendations.

**Speaker series and roundtable discussions.** Discussions with older physicians about the realities of practice and medicine are always to a student's benefit – after all, it is the foundation for medical education (Cooke et al., 2010; Humphrey, 2010). Of the recommendations given by participants in this study, the overarching theme was that interactions with older physicians, either in a lecture series or roundtable discussion groups, would have been helpful. This is not relegated only to work/life balance issues; these lectures or discussions could be about choosing a specialty, business acumen, ethics, changes in insurance and regulations, managing staff – the list of topics outside strictly clinical medicine that impacts physicians is almost endless. One participant noted that she attended a lecture about pathology, but that the speaking physician was asked a question about work/life balance and that interaction stuck with the participant almost 10 years later. These are the topics left out of the formal curriculum that could find a home in the co-curricular, enriching the educational experience for all medical students. Moreover, these kinds of interactions can be presented by both female and general student groups, or in collaboration together, which will build the strength and presence of the aforementioned female student groups. Regardless of how such events are sponsored, they should be regular fixtures on the medical school calendar.

**Formal mentoring programs.** In addition to the occasional group presentation or discussion group, a formal mentoring program would also extend the number of support avenues for female medical students. As mentoring has long been a traditional part of medicine at every stage of medical education and in the development of academic medical faculty (Humphrey, 2010), this is a classical route for student development and support. This recommendation calls for a more intentional, formal mentoring program, with specific training for those serving as mentors in such areas as academic, professional, or personal guidance. These programs may include mentoring between older and younger students, residents, faculty, and administration or some combination thereof. Though this recommendation is under the guise of support needed based on gender-specific issues, it does not mean that male students or faculty cannot participate with and mentor female students but as Humphrey and Smith (2010) note, both parties must be sensitive to the perceptions and priorities between genders. The key aspect of a formal mentoring program is training for the mentor, rather than the more typical organic, and therefore casual, mentoring relationships currently found in medical education.

**Other interactions.** Formative support can occur within any kind of interaction, not only at prescribed events. More than one interview participant mentioned a 10-minute interaction with a preceptor while on clinical rotations that gave them insight into work/life balance struggles for female physicians. Others mentioned support they found from other students with whom they studied. Either way, encouraging support rather than competition or unnecessary criticism from others – students, faculty, staff, and administration alike – on an institutional level will also help build an institutional culture of support and collaboration for all students and one that they will hopefully carry with them into practice.

**Current models.** Student wellness programs are currently required for medical school accreditation per the American Osteopathic Association Commission on Osteopathic College Accreditation (American Osteopathic Association Commission on Osteopathic College Accreditation, 2016) and Liaison Committee on Medical Education (Liaison Committee on Medical Education, 2016), the accrediting bodies for osteopathic and allopathic medical education. Many of the above recommendations for work/life balance issues fit within existing models for student wellness programs. The Vanderbilt University School of Medicine has an impressive Student Wellness Program which is a collaboration of students and faculty to provide academic, physical, emotional and spiritual wellness support events and resources to students (Vanderbilt University School of Medicine, 2016.). The University of California, Davis School of Medicine offers wellness lectures every year, often on topics related to work/life balance and self-care, and then posts the lectures online as a resource for all students even if they did not attend or were not yet in medical school (University of California, Davis School of Medicine, 2016). The purpose of highlighting the accreditation requirements and giving current examples is to bring the aforementioned recommendations into the current medical educational environment. These recommendations do not have to be created from scratch or completely independent from current programming. Instead, modifications from existing programs at other institutions can be used to create tailor-fit programs or initiatives within current programs that are applicable to a particular institution's culture and needs.

### **Continuing Past Medical School**

The data from this study indicates that support in medical school is formative in the development on a physician, but the need for such support does not diminish as a student becomes a professional. In fact, it does the opposite. As many transition from an entering

medical student, with a clear idea of what it is like to ‘be a doctor’ and ‘practice medicine’, to medical professional, they often find that the realities of practice to be quite different (Coombs, 1998), an observation reinforced by the participants in this study. Another key issue raised in the study was the lack of time to complete their responsibilities. Therefore, the next set of recommendations are focused on supporting women in the medical workforce through providing resources and enhancing social networks, often at the same time as completing other requirements such as continuing education.

**Legal rights and responsibilities.** Women in the workforce are not always aware of their legal rights and responsibilities. As pointed out in Chapter 4, many participants felt unfairly and, at times, unlawfully treated regarding maternity leave. Although all residency programs are required to have pregnancy and maternity leave policies in place, Humphrey and Smith (2010) observe that lack of support from peers and faculty are extremely common for residents with childcare responsibilities – which was also expressed in the data collected for this study. Several participants mentioned that they felt pressure to ‘suck it up’ during residency or practice in situations where they felt they were treated unfairly and that the cultural rule of ‘always patient first’ was to be preserved at personal cost to the physician. That being said, the younger cohorts of participants were more sensitive to unfair or discriminatory treatment and were more willing to speak up for their rights in the workplace. Making women aware of their rights and responsibilities in the workplace is the first step in eradicating illegal and unfair treatment based on gender in the workplace.

**Professional women’s groups.** Just as with medical students, professional women’s groups provide support and resources for female physicians. Online resources, networking functions, and conferences (local, national, and international) provide female physicians the

opportunity to interact with others in their field and discuss issues. Some national groups, such as the American Medical Association and the American Osteopathic Association, already have large groups dedicated to women in medicine (American Medical Association, 2016; American Osteopathic Association, 2016). These organizations are dedicated to improving the conditions for female physicians in medicine and are an invaluable resource for physicians. Participation in such groups is a way to connect with other women, improve clinical skills, and have access to a vast variety of resources for oneself and for patients.

**Professional development opportunities.** All physicians are required to complete some kind of professional or continuing education to keep their local medical licensure. While there may be limits on what kind of continuing education is allowed – it may be required to be a certain percentage of clinical information, for example – this is an excellent opportunity for female physicians to learn new skills. Regardless of how the development opportunity is delivered, either online, at a conference, or some mixture in-between, it could help female physicians deal with work/life balance issues. Enhancing clinical skills or practice management could in turn decrease stress and time spent working on off times, which according to the data collected in this study, would increase work/life balance satisfaction. Professional development is also a way to break out of isolation and create social networks with other physicians.

Professional development seminars and conferences are also an excellent way to facilitate discussions between male and female physicians on how to make the workplace supportive for all employees. As Mitchell et al. (2002) reported, 63% of male physicians experience role conflict. Although this is considerably less than the 87% of female physicians reported to experience role conflict by Mitchell et al. (2002), it is still a significant number. Therefore, although the issues of work/life balance may be felt more keenly by women, it is not outside the

realm of possibility than men would benefit from tips on how to create better balance in their lives. This is also a chance for men and women to collaborate on ways to change medical culture within their workplaces in order to foster supportive work environments, to create greater understanding of others, and to provide reasonable accommodations for those who need it.

**Social media and emerging platforms.** An unexpected outcome of this research was the impact of social media on the support networks of female physicians. This was found in the younger cohorts of participants, and for those that utilized it, was of immense benefit. Within this research, the use of social media primarily referred to the Physician Moms Group on Facebook. This is a restricted social media group, but the restrictions provide the strength of the group by making it a safe space to vent, ask for help, share advice, and communicate with other female physicians. As social media continues to evolve and other platforms arise, this is a growing area for female physician support. Unlike professional groups or development, social media is often free to join and can be accessed at anytime, anywhere. However, like any other new support avenue, it must be used with caution to ensure that it continues to be a safe environment in which to seek support.

**Changing needs as life changes.** One of the main reasons participants in this research were not sure that support groups within medical school were appropriate is because it was too early in their life to really understand the opposing pressures of work and family. As life changes, needs change; as needs change, the kinds of support needed also changes. This is not confined to marriage and children, but any other family event (such as aging parents) or life event (such as a health issue). It is impossible to know how a major life change will affect work/life balance until one is in the middle of it. Therefore, it is important to build social

support across the professional experience, from medical school through professional practice, to be able to seek out new avenues for help when needed.

**Importance of family and workplace support.** In this research, workplace support was second only to having good boundaries as a coping mechanism for work/life balance issues and many participants mentioned how they could not do their job without their family's support. Regardless of any other kind of external social network, the importance of workplace and family support cannot be understated. Several participants mentioned changing jobs or priorities as a response to their work environment to places where they felt supported both personally and professionally. This is all perfectly in line with Clark's Work/Family Border Theory which posits that when there is harmony within the realms, it becomes much easier to negotiate the borders between realms (Clark, 2000). As each physician has a different work and family environment, it is important to find the individual harmony for each situation. Without workplace support for personal life and personal support for professional goals, any attempt at work/life balance is ultimately ineffective.

### **Areas for Future Research**

This study, by design, had certain limitations regarding the participants and their medical education. This was done intentionally to keep the data consistent and manageable. Future areas for research would include women from a wider range of cohorts, medical schools, and those from an allopathic background. In addition, demographic variables were not controlled for within this study, including race, sexual orientation, nationality, and geographic location, all of which could be further explored with a larger data set. Other demographic information worth deeper examination would be marriage and family life indicators, such as timeline of marriage or children, impact of the occupation of spouse or partner on work/life balance for female

physicians, and impact of financial costs and benefits of being a physician. Although specialty was considered in this study, future research is needed to consider both a broader range of specialties and a deeper look within individual specialties.

Although this research is focused on women, many of the principles within could be applied to men who may struggle with similar issues. Work/life balance issues exist for all people who have to navigate both professional and personal responsibilities, regardless of profession, gender, marital status, or number of children they have. This research is intended to generate understanding for the different kinds of work/life balance issues for physicians which are impacted by gender as well as to provide recommendations of support for women at all levels of their professional career. This study only scratches the surface of study of work/life balance issues for female physicians, the role of medical education in preparing women for these issues, and the intersections of gender, medicine, and workforce realities for women and it is hoped that future research will build on this work.

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## **Appendix A: Emails to Participants**

### Initial Recruitment Email to Potential Participants from Alumni Association

Dear Valued Alumni,

Paige Corder, a doctoral student at Texas Christian University, is conducting her research about the specific work/life balance issues female physicians face and developing recommendations to mitigate those issues which could be introduced during medical education and training. She is asking for your participation in a 10-15 minute online survey about work/life balance issues. [Institution]'s Alumni Association has agreed to forward the survey link on Ms. Corder's behalf to protect your privacy. All information will be kept confidential. By submitting the survey, you are consenting to participate in the research. A full consent document can be found here ([https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9\\_qa?dl=0](https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9_qa?dl=0)).

The survey can be found here: [https://tcu.co1.qualtrics.com/SE/?SID=SV\\_e8w7PtpECvOWCfX](https://tcu.co1.qualtrics.com/SE/?SID=SV_e8w7PtpECvOWCfX)

This online survey should take about 10-15 minutes and will be available for six weeks. Your participation is voluntary and you may exit the survey at any time. Neither your participation, nor any specific responses, will be reported back to the [Institution] or the Alumni Association. You will be asked to provide your contact information at the end of the survey if you would be willing to be interviewed about the topic.

Thank you for your participation!

[Institution] Alumni Association

If you have questions, please contact Ms. Corder:

Paige Corder

Doctoral Candidate, Higher Education Leadership

Texas Christian University

[email]

[cell phone number]

### Reminder Email #1 to Potential Participants from Alumni Association

Dear Valued Alumni,

Paige Corder, a doctoral student at Texas Christian University, is conducting her research about the specific work/life balance issues female physicians face and developing recommendations to mitigate those issues which could be introduced during medical education and training. She is asking for your participation in a 10-15 minute online survey about work/life balance issues. [Institution]'s Alumni Association has agreed to forward the survey link on Ms. Corder's behalf to protect your privacy. All information will be kept confidential. By submitting the survey, you

are consenting to participate in the research. A full consent document can be found here ([https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9\\_qa?dl=0](https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9_qa?dl=0)).

The survey can be found here: [https://tcu.co1.qualtrics.com/SE/?SID=SV\\_e8w7PtpECvOWCfX](https://tcu.co1.qualtrics.com/SE/?SID=SV_e8w7PtpECvOWCfX)

This survey is only available for two more weeks, and your response is highly valued. If you have already completed the survey, thank you and disregard this message! If not, please consider participating.

Your participation is voluntary and you may exit the survey at any time. Neither your participation, nor any specific responses, will be reported back to the [Institution] or the Alumni Association. You will be asked to provide your contact information at the end of the survey if you would be willing to be interviewed about the topic.

Thank you for your participation!

[Institution] Alumni Association

If you have questions, please contact Ms. Corder:

Paige Corder

Doctoral Candidate, Higher Education Leadership

Texas Christian University

[email]

[cell phone number]

#### Reminder Email #2 to Potential Participants from Alumni Association

Dear Valued Alumni,

Paige Corder, a doctoral student at Texas Christian University, is conducting her research about the specific work/life balance issues female physicians face and developing recommendations to mitigate those issues which could be introduced during medical education and training. She is asking for your participation in a 10-15 minute online survey about work/life balance issues. [Institution]'s Alumni Association has agreed to forward the survey link on Ms. Corder's behalf to protect your privacy. All information will be kept confidential. By submitting the survey, you are consenting to participate in the research. A full consent document can be found here ([https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9\\_qa?dl=0](https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9_qa?dl=0)).

The survey can be found here: [https://tcu.co1.qualtrics.com/SE/?SID=SV\\_e8w7PtpECvOWCfX](https://tcu.co1.qualtrics.com/SE/?SID=SV_e8w7PtpECvOWCfX)

This survey is only available for two more days, and your response is highly valued. If you have already completed the survey, thank you and disregard this message! If not, please consider participating.

Your participation is voluntary and you may exit the survey at any time. Neither your participation, nor any specific responses, will be reported back to the [Institution] or the Alumni Association. You will be asked to provide your contact information at the end of the survey if you would be willing to be interviewed about the topic.

Thank you for your participation!

[Institution] Alumni Association

If you have questions, please contact Ms. Corder:

Paige Corder

Doctoral Candidate, Higher Education Leadership

Texas Christian University

[email]

[cell phone number]

Email to Potential Interview Participants from Researcher

Good evening,

Thank you for completing my survey about Work/Life Balance Issues for Female Physicians. As I stated in the survey, I am conducting my doctoral research on work/life balance issues for female physicians and the implications for medical education. Your responses are very valuable to my research. You indicated that you would be willing to participate in an interview about the topic. Interviews will last about 30 minutes, take place at a time and location convenient for you, and preferably be conducted in-person, although phone or virtual interviews are possible.

Are you still willing to be interviewed? If so, please let me know what medical school you attended and where you currently live and/or work. Thank you for your time and consideration!

Thanks,

Paige Corder

Doctoral Candidate, Higher Education Leadership

Texas Christian University

[email]

[cell phone number]

Email for Transcript Review by Interview Participants from Researcher

Good evening,

Thank you for meeting with me on [date of interview]! Your responses were very enlightening and are a wonderful contribution to my research. I have attached a transcript from the interview, which I have already reviewed. I am listed as the Interviewer or I, you are listed as the Participant or P. Please review and let me know of any changes by [date two weeks from date of email]. If I do not hear from you, I will assume everything is good to go. At that time, the recording will be destroyed and all data will be de-identified, after which it cannot be excluded from the research. If you have any questions, please let me know.

Thank you again for your time and for sharing your experiences with me!

Thanks,

Paige Corder  
Doctoral Candidate, Higher Education Leadership  
Texas Christian University  
[email]  
[cell phone number]

## **Appendix B: Survey Protocol**

### **Work Life Balance Survey**

Q1 Thank you for your willingness to participate in research regarding work/life balance for female physicians! This online survey should take about 10-15 minutes. Should you choose to participate further with an interview, you will have the option to provide your contact information at the end of the survey. All survey data will be de-identified within 48 hours of submission and all information will remain confidential. By submitting the survey, you are consenting to participate in the research. A full consent document can be found here ([https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9\\_qa?dl=0](https://www.dropbox.com/sh/vyda3hw1wwyjzbd/AAAenlhV78vmwWkg9-ilr9_qa?dl=0)) and kept for your records. Your participation is voluntary and you may skip questions or exit the survey at any time. Your participation will not be reported to your institution or Alumni Association. If you have questions, contact either of the following:

- Paige Corder (405-818-5394), [paige.corder@tcu.edu](mailto:paige.corder@tcu.edu)
- Dr. Don Mills (817-257-6938), [d.mills@tcu.edu](mailto:d.mills@tcu.edu)

- Yes, I consent
- No, I do not consent

If Yes, I consent Is Selected, Then Skip To Click to write the question text. If No, I do not consent Is Selected, Then Skip To End of Survey

Q2 What year did you graduate from medical school?

- 1995
- 2000
- 2005
- 2010
- Other

If Other Is Selected, Then Skip To If 'Other' is selected, in which year...If a year is Selected, Then Skip To What is your professional degree?

Answer If What year did you graduate from medical school? Other Is Selected

Q3 If 'Other' is selected, in which year did you graduate from medical school?

Q4 What is your professional degree?

- DO (Doctor of Osteopathic Medicine)
- MD (Doctor of Medicine)

Q5 What is your specialty?

---

Q6 What is your current marital status?

- Married
- Partnered
- Widowed
- Divorced
- Separated
- Never married

Q7 How many children do you have?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10+

Q8 Are you currently a practicing physician?

- Yes
- No

If No Is Selected, Then Skip To Why did you stop practicing? If Yes Is Selected, Then Skip To How many total hours a week do you wo...

Answer If No Is Selected

Q9 Why did you stop practicing?

If Why did you stop practicing... Is Displayed, Then Skip To Did you have female role models, prof...

Q10 How many total hours a week do you work (including charts, phone calls, business meetings, etc.)?

- 0-9 hours
- 10-19 hours
- 20-29 hours
- 30-39 hours
- 40-49 hours
- 50-59 hours
- 60-69 hours
- 70+ hours

Q11 How many hours a week do you see patients?

- 0-9 hours
- 10-19 hours
- 20-29 hours
- 30-39 hours
- 40-49 hours
- 50-59 hours
- 60+ hours

Q12 How do you define work/life balance?

---

Q13 How does your current work/life balance compare/contrast with your definition of work/life balance?

---

Q14 How do you regain or retain balance between work and life responsibilities?

---

Q15 Did you have female role models, professors, mentors, or advisors in medical school?

- Yes
- No
- Can't Remember

Q16 Did you have female role models, professors, mentors, or advisors in residency or additional clinical training?

- Yes
- No
- Can't Remember

Q17 Do you currently have female role models, mentors, or advisors in practice?

- Yes
- No
- Can't Remember

Q18 What do you see as the biggest struggle facing female physicians today?

---

Q19 Briefly describe how your medical education and training did or did not prepare you for work/life balance issues as a physician.

---

Q20 What would you tell current medical students – male or female – about work/life balance?

---

Q21 Would you be willing to be interviewed for further research on the topic of female physicians and work/life balance issues?

- Yes
- No

If Yes Is Selected, Then Skip To Thank you for being willing to partic...If No Is Selected, Then Skip To End of Survey

Q22 Thank you for being willing to participate further! If you will provide the below contact information, you may be contacted for an interview. Any personal information will be removed from the data set within 48 hours of submission.

Name

Email

Phone Number

If Email Is Not Empty, Then Skip To End of Survey  
If Name Is Not Empty, Then Skip To End of Survey  
If Phone Number Is Not Empty, Then Skip To End of Survey

## **Appendix C: Interview Protocol**

Introduction: Thank you for your willingness to participate in this research about work/life balance issues for female physicians. I know you are very busy and I appreciate your time. As we discussed, this interview today will be recorded. We are going to talk about workforce and lifestyle issues for about 30-45 minutes and you may choose to skip any questions that make you uncomfortable or stop participating at any time. Neither your participation, nor any specific responses, will be reported back to the institution or Alumni Association. I will follow up within a couple weeks with an email including the transcript of the interview. You will then have two weeks to review the transcript if you wish to make any changes. If I don't hear from you, I will assume everything is fine. All information will be kept confidential and once your transcript is approved, all information will be de-identified and recordings will be destroyed. Do you have any questions before we begin? Great, let's get started!

Tell me about why you decided to become a doctor?

Where did you attend medical school? Why did you choose that school? When did you graduate?

How did you choose your specialty? What factors influenced your decision?

How many hours a week do you see patients? How many hours a week do you work total, including charting, phone calls, etc?

How do you define work/life balance?

How do you feel about your current work/life balance?

- What are things you feel that you balance well?
- What are things you feel that you don't balance well?
- When life is out of balance, how do you attempt to reach equilibrium?

What are particular constraints or benefits of being a physician and achieving work/life balance?

Is your employment situation supportive of work/life balance?

Tell me about your home life:

- Are you married or partnered?
- Do you have children?
- If not, do you plan on doing these things?
- Do you have outside help, of any kind? (childcare, housekeeping, yard work, etc)

When did you get married and/or have children, specifically within the timeline of your medical education and training?

Thinking back to medical school, specifically the non-clinical training, did you have any female professors or lecturers? What about female advisors?

As you progressed through your medical training, including clinicians and preceptors, did you have any female role models or mentors?

What percentage of your med school classmates were female?

Did you have any kind of programming or support for specifically for female students? If so, did you participate? Why or why not?

Does the broader culture of medicine address work/life balance?

- What are some of the unwritten rules about work/family/life balance?
- How did you learn those unwritten rules?
- Do you think it's changing?

Do you think this affects male and female physicians differently? How so?  
What do you wish you had known in medical school about work/life balance as a practicing physician?

- Would programming, speaker series, seminars, etc. have helped prepare you?
- What about a formal mentoring program?
- Would you have participated?

If you had the chance to do medical school and training all over again, would you?  
Is there anything about work/life balance or being a female physician that we have not talked about that you think is important?

## **Appendix D: Observation Protocol**

Interview observations:

- Time and date of interview
- Difficulty in scheduling interview
  - o How long did it take to schedule from initial contact?
  - o Any availability issues on behalf of the participant or researcher?
- Appearance of interviewee
  - o Physical fitness/body type
    - Visible use of exercise equipment or technology
    - Verbal confirmation of fitness routine
    - Visible signs of exhaustion or illness
  - o Hair and make-up
  - o Clothing and accessories
- Attitude of interviewee
  - o Tone of voice
  - o Noises such as sighs, laughter, snorts, etc.
  - o Tears or crying
- Location of interview
  - o Office
  - o Home
  - o Other
- Distractions during interview
  - o Cell phone/pager/email
  - o Children
  - o Spouse

## **Appendix E: Descriptive Coding Scheme**

### **Interview Medium**

- In Person
- Survey
- Via Phone

### **Cohort**

- 1995
- 2000
- 2005
- 2010

### **School**

- School A
- School B

### **Specialty**

- Anesthesiology
- Child Psychiatry
- Emergency Medicine
- Family Medicine/Practice
- Functional Medicine
- Internal Medicine/Hospitalist
- Neurology
- OB/GYN
- Pediatrics
- Not Given

### **Sub Specialty**

- Allergies/Immunology
- Osteopathic Manipulative Medicine (OMM)
- Sports Medicine

### **Practice Type**

- Academic
- Group
- Hospital
- Sole Practitioner

### **Interview Location**

- Home
- Other
- Work

### **Interview Scheduling**

- Easy
- Moderate
- Difficult

### **Marital Status**

- Divorced
- Engaged
- Married
- Single

- Widowed

Number of Children

- 0
- 1
- 2
- 3

## **Appendix F: Content Coding Scheme**

### Culture of Medicine

- Discrimination
  - o From Other Doctors
  - o From Patients
  - o From Staff
  - o From Supervisors
  - o Names and Titles
  - o Related to Maternity or Family Leave
- Male Female Perception Issues
  - o In School
  - o In Residency
  - o In Practice
  - o Role of Spouses
  - o Social Role Issues
- Observe Female Role Models
  - o Med School
  - o Rotations
  - o Residency
  - o Practice
- Self-care Issues
  - o As a Cultural Issue
  - o In Residency
  - o In Practice
  - o Issues Related to Specialty
  - o Needed in Medical Education
- Unwritten Rules
  - o Always Patient First
  - o Learned by Experience
  - o Learned by Observation
  - o Maternity Leave
  - o Modeling for Others
  - o Personality of Profession
- Working Responsibilities
  - o Hours Worked – Patient Care
  - o Hours Worked – Total
  - o Leadership Roles

### Do It All Again

- No – Emphatic
- No – Probably
- Not Sure – Maybe
- Yes – Probably
- Yes – Emphatic

### Domestic Help

- Inside Family Help
  - o Childcare by Family

- Spouse or Children
- Outside Family Help
  - Housekeeping
  - Lawncare
  - Meal Prep
  - Nanny/Babysitter

#### Lifestyle Issues

- Household Responsibilities
- Family Support
  - Role of Extended Family
  - Spousal Sacrifice
  - Spousal Conflict
  - Spousal Support
- Fitness or Health Routine
- Financial
- Social Support

#### Martial/Family Status

- Single
- Engaged
- Married
- Children
- Martial Timeline
  - Before Med School
  - During Med School
  - Between Med School and Residency
  - During Residency
  - After Practice Establishment
- Children Timeline
  - Before Med School
  - During Med School
  - Between Med School and Residency
  - During Residency
  - After Practice Establishment

#### Medical Education

- Male/Female Ratio
- Med School
- Residency
- Fellowship
- Programming or Support
  - Mentor
  - Formal Group or Club
  - Speaker Series
  - Participation
  - Can't Remember
  - Not Relevant in Med School
  - Future Recommendations

- Reason for Pursuing Medicine
  - o Altruistic Reasons
  - o Fell Into It
  - o Familial Legacy or Interest
  - o Interest in Science
  - o Long Time Interest or Dream
- Reason for Osteopathic Medicine
  - o Applied to Several Schools and Got In
  - o Close to Home
  - o Did Not Know About Osteopathic Med Before Applying
  - o Enjoyed the Faculty at that Particular School
  - o Guided Toward DO
  - o Holistic Approach
  - o Pre-Med Graduate Program
  - o School Loyalty

#### Role Conflict

- Mommy Guilt
- Mom/Work
- Wife/Work
- Patient/Family

#### Specialty

- Internal Medicine – Peds
- Anesthesiology
- Emergency Medicine
- Family Medicine
- Academic Medicine
- Neurology
- OMM
- Sports Medicine
- Reason for Pursuing Specialty
  - o Interest Fit
  - o Lifestyle Fit
  - o Personality Fit

#### Work/Life Balance

- Coping Mechanism
  - o Boundaries
  - o Changed Jobs
  - o Changed Priorities
  - o Facebook Group
  - o Other Change
  - o Self-care
  - o Workplace Support
- Discussions with Other Physicians
  - o Med School
  - o Residency
  - o Practice

- Personal Definition
- Struggles
  - o Boundaries
  - o Children
  - o Family
  - o Guilt/Emotions
  - o Health/Self-care
  - o Patient Care
  - o Stress
  - o Time Commitments
  - o Volume of Work
  - o Working on Off Times
- Successes
- Time to Figure It Out

## **ABSTRACT**

Work/life balance issues exist for all people who navigate both professional and personal responsibilities, regardless of profession, gender, marital status, or number of children. This research sought to better understand the specific work/life balance challenges faced by female physicians and how medical education can better prepare future physicians for such challenges at all levels of their professional career. Specifically, this research examined how female physicians manage work/life balance issues, how these issues are perceived to be different from those of male physicians, how medical education and training prepares women for these issues, and future realistic programmatic ideas for medical education and training to adopt in order to prepare physicians for work/life balance challenges. This study used a mixed methods approach, by way of surveys and interviews with practicing female physicians from two osteopathic medical schools in the southwestern United States.

This research found that female physicians struggle with competing time commitments, including balancing family and domestic responsibilities with professional obligations, and that high levels of guilt and stress are associated with those struggles. Female physicians experience work/life balance issues differently than their male peers due to social role pressures, gender-based discrimination, and often unfair maternity or family leave expectations. Many cope with these struggles by setting firm boundaries, practicing self-care, and seeking workplace and family support. These findings lead to recommendations of building support and social networks in medical school through formal groups or organizations, mentoring programs, and intentional conversations with other physicians and recommending to continue seeking these kinds of support networks throughout their career.

## SIGNATURE PAGE

### WORK/LIFE BALANCE ISSUES FOR FEMALE PHYSICIANS AND IMPLICATIONS FOR MEDICAL EDUCATION

by

Paige Frances Corder

November 15, 2016

Dissertation approved:

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Don Mills, Ed.D., Major Professor

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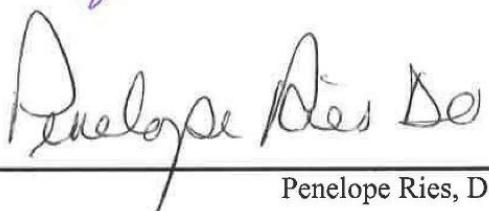
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