## Investigating Benefits of Medical Practice Model and Retention of Primary Care

Physicians:

An Exploratory Study

by

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A Theoretical Dissertation Submitted to the College of Graduate Health Studies In Partial Fulfillment of the Requirements for the Degree of Doctor of Health Administration

A. T. Still University



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# Approval Page

This theoretical dissertation was submitted by Ms. Angela Claytor. Ms. Angela Claytor's committee was composed of the individuals indicated below. The dissertation was submitted to the Dean of the College of Graduate Health Studies for final approval in partial fulfillment of requirements for the degree of Doctor of Health Administration at A.T. Still University.

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### Dedication

This degree would not have been possible without the support of my family, colleagues, church family, and dissertation committee. I am thankful for the loving support of my children Rhaniesha, Kassandra, and Marionna and grandchildren Ray'Shawn and Damia who have been patient and understanding while I attended all of their school activities with a highlighter and articles so I could continue to study during half time and intermissions. I hope the time they shared with me instilled the importance of education and continuing to reach for their dreams no matter what obstacles they may face in life. None of this would be possible without the support of my parents who often made sure my children had meals or rides so I could spend late nights at the coffee shop and their words of encouragement on the days where I only had three hours of sleep and still had to face the reality of working fulltime. Others that supported me in many ways throughout this process were my church family, colleagues, and mentors. Their prayers and interest in my success has been a major factor in my success. Finally, I would like to thank my best friend Dr. Eboniece Cason-Hussain for her cards, flowers, phone calls and proofreads. Having a friend who has been through the experience and could talk me through my meltdowns was a saving grace throughout this process and no doubt has contributed to my success.



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#### Abstract

The purpose of this exploratory quantitative research study was to explore if there is a presence, absence, or direction of a relationship between physician benefits (income, satisfaction, work-life balance), administrative responsibilities, retention, and the model of practice (traditional, concierge, or hybrid) chosen by primary care physicians (PCPs). This exploratory study used the theory of job embeddedness to understand why employees stay or leave an organization and the individual aspects of employee fit, links, and sacrifice to the organization (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). The American Medical Group Association Provider Satisfaction Survey was used as a research instrument. Primary care is the largest method for outpatient delivery of health care (Liaw, Jetty, Petterson, Peterson, & Bazemore, 2016). Literature has predicted a shortage of PCPs, the need for additional PCPs, and the need to retain current physicians (Anderson, 2014; Latham, 2010). Primary care physicians are often frustrated with dwindling reimbursement rates, increased patient loads, and a high demand for additional PCPs has led many physicians to look at alternative models of care delivery such as concierge medicine or hybrid practice models (Altschuler, Margolius, Bodenheimer, & Grumbach, 2012). Participants were PCPs located in Alabama, Alaska, Arizona, and Iowa. This survey asked questions related to the benefits of PCP practice models. However, due to low response rates (N=9), inferential data analysis could not be performed. Results of this exploratory study indicated 66.67% of PCPS would stay in a traditional model of medicine and 33.33% indicated they would switch to a concierge model of medicine.



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*Keywords:* primary care physicians, physician retention, concierge medicine, physician satisfaction, traditional practice model, hybrid practice model



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#### Chapter 1: Introduction

In 2010, the Affordable Care Act (ACA) was signed into law expanding insurance coverage to over 20 million United States citizens (Bauchner, 2016). The ACA was created for the purpose of improving the quality of health care, holding insurers accountable for transparency in how they spend premiums, and reducing the cost of health care (Centers for Medicare & Medicaid Services [CMS], 2017b). The goals of the ACA were to increase access to health care in the United States, provide incentives for health care organizations and providers to change clinical practice through better coordination of care, create changes in payment systems, and improve clinical transparency by providing patients with more information to make health care decisions (Kocher, Emanuel, & DeParle, 2010). Based on these changes, the role of the primary care physician (PCP) became a central and essential component to assist in developing strategies and alternative business solutions to address the primary care needs of the nation (Jacobson & Jazowski, 2011). Primary care physicians include physicians practicing general medicine, family practice, and internal medicine and includes the provision of preventative, curative, wellness care as well as treatment of various acute and chronic health conditions (Agency for Healthcare Research and Quality [AHRQ], 2014).

The ACA legislation provided directives to increase access to care for individuals, and increased regulations on providers which, as a result, increased patient load and created time constraints for patient care delivery (Anderson, 2014). The constraints of seeing more patients in the same length of time while providing quality care and reductions in reimbursement, has increased the desire for some PCPs to switch from a



traditional medical practice model to a concierge business model. Regulations that tie patient outcomes to reimbursement create an additional constraint on PCPs to ensure that they have reporting systems in place to meet insurance requirements (Schroeder, 2017).

Top concerns facing PCPs are thought to be the result of uncertainty with health care regulations, lower reimbursement rates, the inability to maintain a work-life balance, and a reduction of appointment lengths to diagnose and treat patients ("Work Life Balance," 2013). PCPs practicing under a traditional care model, typically see patients in a 15-minute time slot on average, while providers practicing under a concierge model of care typically see patients in a 30 to 60 minute time slot that allows for a more in-depth personalized approach to patient care (Concierge Medicine Today [CMT], 2013; Panattoni, Hurlimann, Wilson, Durbin & Tai-Seale, 2017). According to research, PCPs incorporating a concierge practice model experience increased patient satisfaction, care coordination, and provide increased quality of care (Ko, Rodriguez, Fairchild, Rodday, & Safran, 2009).

A major factor that may have a negative impact on the future of patient care if not addressed is the shortage of PCPs (Anderson, 2014). The overall increase in the population, the increased longevity, and the expansion of healthcare insurance coverage under the ACA has resulted in a need to not only retain current PCPs but to increase the numbers of PCPs in general (Latham, 2010). The AHRQ estimated that for 2008, 51.3% of 956 million patient office visits in the United States were with a PCP. More recent data obtained from the Centers for Disease Control and Prevention (CDC, 2017) demonstrated no appreciable change since then with an estimated with 54.5% visits to a PCP.



According to Latham (2010) 25% of all practicing PCPs are over the age of 60 and nearing retirement. Petterson, Rayburn, and Liaw (2016) indicated the average age of retirement for PCPs is 64 years of age. Retiring physicians, a growing U.S. population, as well as additional insurance coverage has resulted in an increased physician shortage in primary care settings (Christopher, Smith, Tivis, & Wilper, 2014). Additionally, according to Christopher et al. (2014), there is also a need to retain these PCPs, and create additional models of care. According to Anderson (2014), a shortage of PCPs is one of the factors that have resulted in changes in the approach to health care delivery as well as the adoption of new value-based models of care such as patientcentered medical homes and accountable care organizations. It could also be posited that introduction of concierge and hybrid models may also promote delay of retirement and improved retention.

Patient-centered medical homes (PCMH) are models of care in which the PCP is responsible for a patient's total care. This care is based on the five components of providing comprehensive care related to wellness and prevention services; patientcentered care focused on developing a relationship with patients and families; coordinated-care between hospitals, home care, and community services; accessible services through increased access and electronic communication; and quality and safety through patient outcomes and satisfaction (AHRQ, 2015). Research demonstrated improved patient outcomes in the PCMH model such as: fewer emergency room visits as well as moderate health status improvements in patients with diabetes and addiction (van den Berk-Clark et al., 2018).



Accountable care organizations (ACOs) are groups of physicians, hospitals, and care providers that work together to coordinate care for Medicare patients in their population and prevent duplicate services (CMS, 2017a). Unlike PCMHs that place emphasis on coordinated care, ACOs focus on quality of care outcomes. The ACO is reimbursed through shared savings based on designated outcomes (Berwick, 2011). These outcomes are tied to accountability for a patient population, coordinated services, and providing quality, cost efficient care (CMS, 2017d).

Concierge medicine provides a care model for PCPs frustrated with the increased regulations on providers and time constraints created by seeing more patients in the same length of time (Berlin, 2016). It is estimated there are more than 5,700 PCPs using a concierge medicine practice model (American Physical Therapy Association, 2013). Physician frustrations are often matched by patients who perceived they may have reduced access to or time with their physician (Huff, 2015). Concierge medicine provides access to quality and timely care for the patient and increased career satisfaction for the physician (Cascardo, 2014a; Lewis, 2005).

A third model of practice is Hybrid. The hybrid practice model combines the traditional practice model with a concierge medicine practice model (Cascardo, 2014b). This practice model of medicine offers patients the option of concierge care or continued care in the traditional setting and allows physicians to block specific appointment times to provide increased access to concierge patients, while continuing to see other patients using a traditional model of care (Gavirneni & Kulkarni, 2014).

The remainder of Chapter One provides an introduction on the topic of concierge medicine and how the continuing shortage of PCPs contributes to these physicians



adopting concierge medicine into their practice and business model. This discussion identified the need to explore the research questions presented. Additionally, this chapter identifies the significance of the study and defines key terms. It also outlines the assumptions, limitations and delimitations and introduces the theoretical foundation for the study.

#### **Background of the Study**

The cost of health care in the United States continues to increase annually (Stone, 2017). In 1960, health care costs accounted for only 5% of the national gross domestic product (NGDP) (Catlin & Cowan, 2015). By 2013, the U.S. government spent 64.3% of the annual budget on health expenditures representing 11.2% of NGDP (Himmelstein & Woolhandler, 2016). In 2015 health care expenses increased again to17.8% of the NGDP (Stone, 2017). It is estimated by 2025 health care expenses will account for nearly 19.9% of the NGDP (CMS, 2017a).

Two contributors to the cost of health care include the continual increase of the U.S. population, as well as an increase in the number of individuals 45 and older (Danielsen & Wendel, 2016). In 2015 the total population of the United States was 330 million and it is estimated by 2025 it will be over 335 million (Danielsen & Wendel, 2016). The increased cost of healthcare for the overall population has contributed to the need for health care reform and additional primary care providers (Anderson, 2014; Danielsen & Wendel, 2016).

In 2012, individuals over the age of 65 made up 14% of the population and accounted for about 34% of all health care costs in the United States (CMS, 2017a). The CMS (2017a) noted the cost of providing care for the aging population in 2012 was three



times higher than the health care dollars spent on caring for children. In 2015, individuals over the age of 65 accounted for more than 15% of the population. This age group is estimated to increase to more than 19% of the U.S. population by 2025 (Danielsen & Wendel, 2016). Additionally, the overall population of adults age 65 years and over increased by 1.6 million between 2014 and 2015 (United States Census Bureau, 2017). The projected population aged 65 and older in 2060 is projected to be 98.2 million people or 25% of the overall population. What is interesting here is that of this number, it is projected that 19.7 million individuals will be age 85 years and older (United States Census Bureau, 2017). Factors contributing to this significant trend in the aging population include longer life expectancy as well as the current aging of those born between 1945 and 1964 (CMS, 2017a; DesRoches, Buerhaus, Dittus, & Donelan, 2015). Additionally, it has been demonstrated that older adults require more management of their chronic conditions resulting in an increased number of physicians and physician visits which may be affected by the projected decline in the number of PCPs (DesRoches et al., 2015)

#### **Primary Care Physician Shortage**

One factor contributing to a decline in the number of PCPs is the increased number of work hours causing many PCPs to reduce their practice or retire earlier (Christopher et al., 2014). Other research has reported long work hours have increased physician dissatisfaction and created work-family conflict (Shirom, Nirel, & Vinokur, 2010). Another study indicated that although the average age of retirement for PCPs is 64 years old, there has not been a major exodus as predicted (Petterson et al., 2016). Finally, these changes have created the desire for PCPs to join group practices or develop



other approaches to providing care such as concierge medicine and hybrid practice models ("Physicians ponder changes in their practices," 2011).

As present generations in the workforce change, the desires of PCPs entering the workforce have changed as well. Previous research demonstrated PCPs born between 1945 and 1964 identified themselves as doctors first and, to a fault, put their work over everything else; while individuals in Generation X, born between 1965 and 1980 did not limit their lives to just being a doctor but also included their lifestyle choices, family, and hobbies as part of their priorities (Jovic, Wallace, & Lemaire, 2006). Generation Xers are also motivated by flexible schedules; technology; diversity and relationships with close friends and family. However, they are more likely to exhibit insecurity and cynicism about organizations (Jovic et al., 2006).

The need to recruit and retain physicians is an area of interest to health care administrators. According to the AHRQ (2014) in 2010 there were more than 209,000 PCPs. According to Petterson, Rayburn, and Liaw (2015), the need for PCPs will continue to increase and it is predicted that by the year 2025 there will be a shortage of over 40,000 PCPs. Factors contributing to the shortage of PCPs include; physician retirement on average at 64 years of age, the decreased number of medical students choosing primary care over specialty practice, the increasing cost of malpractice insurance, the rising cost of operating a medical practice, cuts in Medicare and Medicaid reimbursement, and concerns about work-life balance (Ko et al., 2009; Petterson et al., 2016). Existing literature on recruiting physicians to join a practice demonstrated that the most significant factors included salary, benefits, work hours, and work-life balance (Walker et al., 2010).



It is estimated by 2025 only 31.9% of graduating residents will become PCPs (Petterson, et al., 2015). There is a current demand to increase the number of resident physician positions for primary care and create effective strategies to recruit physicians into primary care (Anthony, MacNamara, George, & Taylor, 2011). According to these authors, medical students and residents are more likely to choose a career in primary care if they are from non-physician families, older in age, and have a passion to care for the underserved.

### **Traditional Medicine Model of Care**

According to Liaw, Jetty, Petterson, Peterson, and Bazemore (2016), primary care is the largest form of outpatient health care delivery. The traditional primary care medicine practice model is represented either as a private or solo practice or a group practice. On average, group practices consist of five physicians or less (Liaw et al., 2016). A group practice is defined as a group of physicians who work in the same practice model to share resources, risk management, reduced work hours, and capital (Liaw et al., 2016).

The average number of patients in a primary care provider's patient panel size ranges from 2,500 to 3,000 patients (Gavirneni & Kulkarni, 2014). According to a survey conducted nationally in 2006, 53% of patients reported they were unable to promptly access their primary care provider; by 2011, 57% of patients reported they were unable to promptly access primary care treatment (Ghorob & Bodenheimer, 2012). Traditional models of primary care practice continue to report increased wait times, reduced reimbursement, increased cost of care delivery, and physician frustration (Masini, 2014).



Studies have estimated that in a traditional model of primary care, physicians spend 20% to 33% of their time each day performing functions related to patient care outside of an office visit (Dunham, Marcelo, & Baker, 2013). Many of these functions are tied to charting and documentation to seek reimbursement that continues to decline (Masini, 2014). Dwindling reimbursement rates, increased patient load, and a high demand for additional primary care providers has led many physicians to look at alternative models of care delivery (Altschuler, Margolius, Bodenheimer, & Grumbach, 2012).

### **Concierge Medicine**

Primary care physicians working in a concierge medicine practice on average will see 1,000 patients less than PCPs in a traditional model of care (Altschuler et al., 2012). In a concierge medicine practice model, providers reduce their practice size to provide more individualized care to their patients (Schyberg, 2011). The concept of concierge medicine was developed in the 1990s to reduce time constraints on PCPs by decreasing the patient load, providing patients with increased access to care, and ultimately reducing the increasing costs of operating a medical practice (Carnahan, 2007; Paul & Skiba, 2016). These services may include same day appointments, 24/7 access to a physician, longer and more comprehensive appointments, house calls, private waiting areas, personalized attention, preventive care, and coordination of care with specialists (Paul & Skiba, 2016; Stillman, 2010).

Primary care physicians choosing to implement a concierge practice model reduce their patient load by an average of 80% in order to provide longer visits and individual care (Paul & Skiba, 2016). The average patient panel size in a concierge practice model



ranges between 100 to 600 patients allowing increased access to care, improved patient satisfaction, higher quality care, and the ability to remain financially stable (CMT, 2013; Gavirneni & Kulkarni, 2014). This increased access allows PCPs the ability to conduct an in-depth and thorough exam without the pressure of time constraints (McDonough, 2013). Concierge physicians have control over how many patients they treat, and the length of time spent with each patient (Gavirneni & Kulkarni, 2014). This is important to the PCP who may be looking for ways to conform to current insurance requirements and have a work life balance.

In concierge medicine, retainer fees are set by each physician and can be paid monthly, quarterly, or annually (Stillman, 2010). Retainer fees can range from a few hundred dollars a month to \$15,000 annually based on the level of services provided and location (Page, 2013; Weber, 2003). According to Doherty (2015), physicians set up individual contracts with patients that may contain one or more of the following elements; frequency of retainer fees and payment arrangements (charged monthly, quarterly or annually); a list of services not covered in the contract; and education regarding the benefits of increased access to care (Doherty, 2015).

It is important to remember only those services in the contract are covered by the retainer fee. Therefore, it is necessary for a patient to maintain their insurance coverage for those services not indicated in the contract such as hospitalizations, consultations with specialists, diagnostic testing, and treatments (Doherty & Freed, 2015; McDonough, 2013). Most concierge patients opt to get insurance with high deductibles to cover other major medical expenses (CMT, 2017). According to Doherty (2015) PCPs in a concierge model can participate on the health insurance exchange as long as they inform patients of



the services that will be billed to insurance and are not covered in the patient-provider contract.

Primary care physicians who work strictly from a concierge retainer do not bill insurers for services outlined in the patient-physician contract and as a result, save on overheard costs of hiring a billing specialist, avoid hassles with reimbursement from third party insurers, and avoid the pressure of seeing more patients (Kirkpatrick, 2002). Eliminating third parties also allows PCPs more autonomy over the care they provide patients as they are not focused on rules tied to insurance reimbursement (Cascardo, 2014b). Therefore, it is essential that physicians are transparent with pricing and specifically identify which services the retainer fee covers in the contract (Doherty, 2015).

Concierge physicians may accept Medicare patients if they follow strict guidelines (CMS, 2017c). According to the CMS (2013b) Guidelines, Medicare patients cannot be charged extra for services already covered by Medicare and the PCP must provide patients with an Advance Beneficiary Notice of non-coverage which is a statement that includes a list of services not covered by Medicare and an estimation of the cost that will be passed to the patient if not covered. Physicians who do not participate with Medicare are limited in their charges to 115% above the current amount listed in the approved Medicare Fee Schedule for services not covered by Medicare (CMS, 2017c). Physicians who do not adhere to these guidelines are subject to a civil penalty from the Office of the Inspector General (CMS, 2013b).

Concierge practices are usually clustered in higher income areas and in major cities and suburbs on each coast of the United States (Dalen & Alpert, 2017). Most



concierge medicine practices are in Florida, California, Pennsylvania, and Virginia (Cascardo, 2014b). There is limited research on concierge practices in the Midwest. In the Midwest; Iowa, North Dakota, and South Dakota have been identified as states with a significant demand for concierge medicine services due to a low number of practicing concierge physicians in these states and the increased demand from patients for concierge medicine (CMT, 2013). There is limited research on concierge practices in the Midwest; however, an article in *Concierge Medicine Today* (2013) reported that the number of patients seeking a concierge medicine provider exceeds the number of providers in this area. This exploratory study focused on PCPs practicing in either a traditional, concierge or hybrid practice model in the United States.

There is a perception that concierge physicians choose this model of practice to select the healthiest patients and earn more money by seeing fewer patients; however, there are no research findings identifying this from the perspective of a practicing concierge physician (McDonough, 2013). Research does indicate that concierge physicians have the ability to spend additional time treating and educating patients on health conditions as a result of longer appointment lengths and the ability to ask more in depth questions without time constraints presented in a traditional practice model (Cascardo, 2014a). Additionally, concierge physicians can dictate their patient load to avoid additional stress of overloading their daily work schedules, however, it is unknown if these benefits factor into a physician's decision to practice concierge medicine (McDonough, 2013).



#### **Hybrid Practice Model**

The hybrid practice model is a mixture of concierge medicine and the traditional model of primary care (Cascardo, 2014b). This practice model allows physicians an opportunity to offer patients the option of concierge care or continued care in the traditional setting (Cascardo, 2014b). Hybrid concierge physicians block specific appointment times to provide increased access to concierge patients, while continuing to see other patients using a traditional model of care (Gavirneni & Kulkarni, 2014).

#### **Reimbursement Changes**

The shift in reimbursement from quantity to quality of care has resulted in the need to develop alternative physician practice models such as the patient medical care home and ACOs. The goals of shifting reimbursement to value versus volume was to increase preventive care, provide better patient outcomes, and reduce cost of care (VanLare & Conway, 2012). According to Balducci (2017) this shift in the payment structure is known as value-based purchasing which was implemented in 2013 by the CMS. This approach reimburses physicians based on the quality of care given to the patient, patient outcomes, and patient satisfaction. The value-based purchasing approach focuses on patient outcomes and represents a shift in reimbursement away from traditional fee-for-service reimbursement models which focused on the quantity of patients seen rather than the quality of care provide (Balducci, 2017).

According to Hariharan (2014) the medical profession expressed increased frustration with changes in health care payment models that resulted in reduced compensation, demands to see more patients and to increase quality of care. A decline in physician reimbursement and the requirement for physicians to see more patients has



created physician frustration (Hariharan, 2014). As a result, the demand to see more patients often limits the provider's ability to spend time thoroughly evaluating and treating patients and maintaining a high level of quality care (Page, 2013). As more individuals gain health care coverage and seek care, existing PCPs may become overwhelmed with long hours and lack the needed resources to accommodate additional patients (Paul & Skiba, 2016).

### **Physician Retention**

Physician retention according to Cohn, Bethancourt and Simington (2009) is the ability to recruit and retain high performing physicians. Physician retention is often tied to flexible work hours, work-life balance, a sense of job fulfillment, the number of physicians practicing in the group and individual workload (Cornfield, Lane, & Abman, 2013; El Koussa, Atun, Bowser, & Kruk, 2016). Physicians who can collaborate and share workloads, experience reduced burnout from working too many hours due to patient overload (Cameron, Este, & Worthington, 2012). Conversely, concierge physicians as well as those incorporating a hybrid practice model are afforded the ability to reduce their workload and create flexible hours of operation (Carnahan, 2007; CMT, 2013; Paul & Skiba, 2016).

#### Summary

There is a gap in the literature using a quantitative approach to investigate the presence, absence, or direction of a relationship between the benefits physician of concierge, traditional, or hybrid medical practice settings and retention. This exploratory study sought to understand the benefits from the perspective of the PCP associated with choosing a medical practice model. The outcome of this exploratory study contributed to



the existing body of research by providing the benefits a PCP seeks when choosing a medical practice model and insight into physician retention. This exploratory study is also important to healthcare administrators from the perspective of benefits important to PCPs in order to design benefits associated with physician benefits of the specific medical practice models may assist healthcare administrators in retention and job satisfaction in their practice model (Bennett & Phillips, 2010). Identifying the physician benefits of the specific medical practice model practice models may assist healthcare administrators in retention and job satisfaction in their practice model practice models may assist healthcare administrators in identifying benefits that increase physician retention.

#### Purpose

The purpose of this exploratory quantitative study was to investigate whether there is a presence, absence, or direction of a relationship between physician benefits (income, satisfaction, work-life balance) administrative responsibilities, retention and the model of practice (traditional, concierge, or hybrid) chosen by PCPs. The current body of literature is limited to patient benefits of concierge medicine, legal and ethical issues of concierge medicine, and the increase in the numbers of physicians joining concierge medicine practices. However, it does not identify how a PCP benefits or why he or she chooses to stay in a practice model (Carnahan, 2007; McDonough, 2013; Paul & Skiba, 2016).

### **Research Questions**

The purpose of the overarching research question was to investigate whether there was a presence, absence or direction of a relationship between physician benefits (quality of life, income, and work-home balance) administrative responsibilities, retention, and the model (traditional, concierge, or hybrid) of practice chosen by PCPs. Supportive



questions sought to understand relationships associated with the benefits of concierge, traditional, or hybrid medical practice settings and physician retention. The independent variable for this study was the practice model (traditional, hybrid or concierge). The dependent variables for this study were the benefits to the physician of the practice model (income, physician satisfaction, work-life balance), administrative responsibilities and physician retention.

### **Main Research Question**

Is there a relationship between the benefits (quality of life, income, and workhome balance) of the practice model, administrative responsibilities, and the retention of primary care physicians?

*Research Question 1:* Is there a relationship between the physician practice model and primary care physician retention in a medical practice?

H<sub>1</sub> There is a relationship between the physician practice model and primary care physician retention.

 $H_0$  There is no relationship between the physician practice model and primary care physician retention.

*Research Question 2:* Is there a relationship between the primary care physician practice model and the income earned?

 $H_1$  There is a relationship between the primary care physician practice model and the income earned.

 $H_0$  There is no relationship between the primary care physician practice model and the income earned.



*Research Question 3:* Is there a relationship between the primary care physician practice model and physician satisfaction?

 $H_1$  There is a relationship between the primary care physician practice model and physician satisfaction.

 $H_0$  There is no relationship between the primary care physician practice model and physician satisfaction.

*Research Question 4:* Is there a relationship between the primary care physician practice model and the effect on work-life balance?

H<sub>1</sub> There is a relationship between the primary care physician practice model and work-life balance.

H<sub>0</sub> There is no relationship between the primary care physician practice model and work-life balance.

*Research Question 5:* Is there a relationship between the primary care physician practice model and administrative responsibilities?

H1 There is a relationship between the primary care physician practice model and administrative responsibilities.

H0 There is no relationship between the primary care physician practice model and administrative responsibilities.

### Significance of the Study

Due to the poor response rate, the study was not able to contribute to the body of knowledge on the PCP choice of practice model, or evidence of a relationship between the benefits of using specific practice model and physician retention in medical practice. It sought to clarify the reasons that PCPs chose a specific practice model and identified



the presence, absence, and the direction of a relationship between the benefits and retention and the PCP practice model. This study sought to make a positive contribution to the practice of healthcare administration by informing health care administrators of PCP perspectives on practice choice and physician retention.

### **Theoretical Foundation**

This exploratory study used a theoretical foundation of job embeddedness. Job embeddedness seeks to understand why employees stay or leave an organization and the individual aspects of employee fit, links, and sacrifice to the organization (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). This theory provided the framework to explain why a PCP chooses a specific practice model and which benefits contribute to physician retention (Mitchell et al., 2001).

### **Definition of Terms**

The following terms listed below provide clarity to key terms identified in this exploratory study.

Administrative Responsibilities. Tasks and duties that are non-clinical including paperwork and documentation of services (Rao et al., 2017).

**Concierge Medicine**. A business model of care where PCPs practice medicine under a retainer while limiting the size of their practice to increase access to care (Stillman, 2010).

**Hybrid Concierge Practice**. A business model of care where PCPs combine a traditional medical practice with a concierge medicine practice. Concierge patients are seen at specific times however, the remainder of the physician's schedule remains open to other patients (McDonough, 2013).



**Patient Panel**. The number of patients assigned to a physician's practice (Murray, Davies, & Boushon, 2007).

**Physician Work Hours**. Hours worked per week providing medically related care to patients (Starmer, Frintner, & Freed, 2016).

**Physician Retention**. The ability to recruit and retain high performing physicians in the medical practice setting (Cohn et al., 2009).

**Physician Satisfaction.** Physicians who are content with the work they perform, their type of practice, income earned, and work-life balance (Coleman, Dexter, & Nankivil, 2015).

**Primary Care Physicians**. Physicians that practice general medicine in settings that include general medicine, family practice, and internal medicine (AHRQ, 2014)

**Work-life Balance**. Work schedule that provides adequate time for family, hobbies, and lifestyle outside of work (Starmer et al., 2016).

### Assumptions, Limitations and Delimitations of the Study

Assumptions of a study are statements that have truth based on the study design (Simon, 2011). Limitations of a study can best be described as potential weaknesses out of the researcher's control, and are associated with the research design, funding, or statistical model constraints (Theofanidis & Fountouki, 2018). Delimitations are controlled by the researcher where the research sets limits on the study to ensure the objectives and aim of the study is possible to achieve (Theofanidis & Fountouki, 2018).

### Assumptions

The purpose of this exploratory quantitative study was to investigate whether there is a presence, absence, and the direction of a relationship between physician



benefits (income, satisfaction, and work-life balance), administrative responsibilities, retention, and the model (traditional, concierge, or hybrid) of practice chosen by PCPs. It sought to identify what physician benefits motivate PCPs to choose a concierge, traditional, or hybrid model of medical practice. Although there is significant literature that discusses benefits of concierge medicine from the patient perspective, there is limited published literature regarding the benefits to the physician.

Therefore, the following assumptions were applied to this exploratory study:

- Eligible participants included PCPs in the United States who currently follow either a traditional, hybrid or concierge medicine model in their practice.
- Participants included PCPs (internal medicine, family practice, and general medicine)
- This population was chosen using convenience sampling from a listserv obtained through Redi-Data.
- The study was voluntary; therefore, it is assumed the participants answered truthfully.
- Participants were invited to participate in an online survey and informed of the option to opt out at any time.

### Limitations

The following limitations applied to this exploratory study.

• This study was limited in that the sample was restricted to PCPs (internal medicine, family medicine, general medicine). However, pediatricians and geriatricians were considered "specialties" and not included.



- The researcher sent invitations to PCPs in the United States incorporating all three practice models (traditional, concierge, and hybrid), however, the researcher had no control over from which model responding physicians.
- Due to the poor response rate, and lack of variation in practice model, the study became restricted to an exploratory study investigating benefits and retention in only a traditional model. The small sample size does not permit generalization to the entire population of PCPs practicing traditional models of care.
- Initial study parameters were restricted to three states, Iowa, North Dakota, and South Dakota. However, due to the extremely poor response rate, additional recruitment was opened to the entire United States.
- This study was limited due to physician willingness to participate.
- Uncertainty of the future state of health care may change the background of the study.

# Delimitations

The following delimitations applied to this exploratory study:

- This study investigated the benefits and retention of PCPs in three primary care practice models.
- This study used the job embeddedness theory to explain why a PCP chose a specific practice model and which benefits contributed to physician retention (Mitchell et al., 2001).



- This study did not encompass all PCPs in the United States; it focused only on those classifications of PCPs stated in the study; internal medicine, family practice and general medicine.
- This study focused on the physician perspective; therefore, patient benefits for a specific practice model (traditional, concierge, hybrid) were not included.

### Organization of the Remainder of the Study

The remainder of this exploratory study provides a comprehensive approach to understanding the need to conduct a quantitative review of the benefits and physician retention of three physician practice models. Chapter 2 consists of a literature review including gaps in existing literature and introduces the theory of the study. Chapter 3 presents methodology, research design, sample population, data collection, instrumentation, and analysis. Chapter 4 presents the data analysis, and results of the study, conclusions, limitations, and recommendations.



#### Chapter 2: Literature Review

Primary care physicians (PCPs) are physicians practicing general medicine, family practice, and internal medicine and are essential to managing the overall health of their patients from the youngest infant to the oldest adult (AHRQ, 2014; Fodeman & Factor, 2015). The current shortage of PCPs and increased size of patient panels may affect the delivery of care and will continue to do so in the future (Verdon, 2016). To address adequate access and physician burnout, as well as focus on improved quality and value, additional models of care such as PCMH, ACOs, and concierge medicine practices may contribute to retention of PCPs (Anderson, 2014; Verdon, 2016).

Primary care physicians that leave a practice results in increased cost to the health care organizations. These include tangible costs such as; recruitment, hiring and training as well as intangible costs including; loss in physician productivity and decreased access to care (Fibuch & Ahmed, 2015). The organizational cost of replacing a physician is two to three times his or her annual salary when factoring recruitment, onboarding, credentialing, and time spent optimizing an efficient practice (Shanafelt, Goh, & Sinsky, 2017). PCPs who leave an organization take knowledge and expertise with them as well as have the potential to create access to care issues for patients until their replacement is on board (Fibuch & Ahmed, 2015).

Increasing access to health care provides opportunities for preventive services that could lead to prevention or earlier detection of chronic illnesses (Dutra Sehnem, Lima Rodrigues, Mendes Lipinski, Deitos Vasquez, & Schmidt, 2017). Increased access to PCPs helps keep patients out of emergency rooms and contributes to lower cost of medical treatment and patient satisfaction (Glass, Kanter, Jacobsen, & Minardi, 2017).



Many PCPs have experienced an increase in practice volume in order to meet the demand of the current patient population. This can lead to physician burnout, turnover, and an increase in patient wait times (Miller & Wherry, 2017; Rhodes et al., 2017). Physicians practicing a concierge model of medicine have a reduced patient panel that allows for more time with the patient, increased patient satisfaction, and increased quality of care (CMT, 2013; Ko et al., 2009).

To conduct a thorough search of the literature the researcher used a Boolean approach to search extant literature gathered from various electronic databases including: (CINAHL Plus, EBSCO, Google Scholar, AHRQ, CDC, and CMS. Articles and texts in relation to (PCPs, reimbursement, retention, practice models) were identified by use of keyword searches in the A.T. Still Memorial Library. Keywords consisted of concierge medicine, physician retention, job embeddedness, access to care, ACA, PCPs, PCP shortage, PCP burnout, and physician satisfaction.

Chapter 2 reviews literature regarding the following constructs: primary care in the United States, PCP shortages, PCP work-life balance, compensation, administrative responsibilities and job satisfaction. The job embeddedness theory provided the framework for this exploratory study. Job embeddedness looks at the reasons that employees remain in their current position including how they fit, links, and sacrifice to the organization as well as what causes them to leave (Mitchell et al., 2001). Using this theory, the exploratory study investigated the relationship between the physician benefits and retention of PCPs practicing in existing models of care. The chapter concludes with a synthesis and critique of the literature on PCP satisfaction and retention.



#### **Background and Gap**

The annual cost of health care in the United States continues to increase (Stone, 2017). By 2025 it is estimated health care expenses will account for nearly 19.9% of the NGDP (CMS, 2017a). According to the CDC (2017) 54.5% of patient office visits in the United States are provider by PCPs. The overall increase in the population, the increased longevity, and the expansion of healthcare insurance coverage under the ACA has demonstrated a to retain current PCPs and to increase the numbers of PCPs in general (Latham, 2010).

There is a gap in existing literature using a quantitative study to explore whether there is a presence, absence, or direction of a relationship between physician benefits (income, satisfaction, work-life balance), administrative responsibilities, retention, and the model of practice (traditional, concierge, or hybrid). Identifying if benefits of other models of care may assist in identifying why physician chose a practice model of medicine (Hopson, Petri, & Kufera, 2018; Kirch & Petelle, 2017). This exploratory study is important to health care administrators to gain an understanding of the various concerns of PCPs based on the practice model in order to improve satisfaction and retain quality physicians.

### **Theoretical Foundation**

This exploratory study used the job embeddedness theory identified through data collected and a generalized confirmation of data collection (Winit-Watjana, 2016). The job embeddedness theory, first described by Mitchel et al. (2001), examined the relationship between the various factors of a workplace that contribute to employee retention. Job embeddedness examines not only why employees leave an organization


but also what factors of the organization encourage employees to stay in their current position (Mitchell et al., 2001). Figure 1 demonstrates how job embeddedness was used to understand what is essential to PCPs and their choice of practice model and physician retention.



*Figure 1*. Job Embeddedness Theory Adapted from: Job Embeddedness Theory (Porter, Woo & Campion, 2016; Winit-Watjana, 2016).

The connection between the three major aspects of job embeddedness: job embeddedness, as they apply to this exploratory study are illustrated in Table 1. These aspects are identified as; (a) the links individuals have to people or activities; (b) the fit for how an individual's job and communities are similar to other aspects in their life; and (c) the sacrifice of leaving a job (Mitchell et al., 2001). While the theory of job embeddedness has been used in quantitative and mixed methods studies in the nursing field there is limited research using this theory to investigate physician retention.



## Table 1

Definition of Three Aspects of Job Embeddedness			
Links	Discernable connections formal or informal between people or activities associated with work, friends, and community.		
Fit	Employee's perceived fit or comfort with an organization and with their personal values, career goals, and plans professionally and personally.		
Sacrifice	Physical and psychological benefits that may be lost by leaving a job or organization.		
Note: Mitchell et al., 2001			

## Links

Mitchell et al. (2001) identified links as discernable formal or informal connections between people or activities associated with work, friends, and community. Porter, Woo and Campion (2016) described links as positive emotional reactions to the community and an organization; motivating forces that cause an individual to stay and build internal networks within an organization. The more connections an individual has with an organization and their work the more embedded they are in their job (Holtom & O'Neill, 2004). Linking PCPs to their jobs may assist with retention in the workplace (Hopson et al., 2018). Understanding what benefits there are to various practice models may assist administrators in identifying why a PCP chose a type of practice model of medicine (Hopson et al., 2018; Kirch & Petelle, 2017). Hopson et al., (2018) surveyed nurses regarding retention of acute care nurses. Findings revealed that nurses were more embedded in their jobs if the organization they were working for was an institution that their families used for health care treatment. Hopson et al. (2018) recommended future research to investigate the negative impact of job embeddedness such as an employee having limited options for employment therefore nurses felt stuck in an organization.



An individual's values or plans, career goals, and organizational culture are determinants of job embeddedness fit (Mitchell et al., 2001). Employee's perceived fit with an organization often closely aligns with personal and professional goals and plans (Mitchell et al., 2001). Crossley, Bennett, Jex, and Burnfield (2007) described fit as an employee's comfort or compatibility with their career, organization, and community.

Yueran, Fei and Liu (2016) stated individuals are more drawn to organizations that share similar values and qualities that will fit their individual needs. Yueran et al. (2016) surveyed civil servants employed by a municipal government in China. The results of this study showed individuals who have a personal fit to an organization based on similar values and qualities also known as person-organizational fit have a strong and were least likely to turnover in a position or leave an organization (Yueran et al., 2016).

Peng (2018) surveyed employees in the information technology field to measure their person-organization (P-O) fit, work-family balance and attitude toward work. Findings from the study revealed P–O fit has a significant relationship with organizational commitment, job satisfaction, and turnover intent. When an employee shares similar values with an organization, they become engaged in work, are less likely to leave, and the job becomes part of their social identity (Peng, 2018). Therefore, it could be presumed that the stronger the fit of career, organization and community is for a PCP, the better chance an organization will be able to retain them.

## Sacrifice

Sacrifice, the third dimension of job embeddedness is a physical and psychological benefit that may be lost by leaving a job or organization (Mitchell et al.,



2001). Benefits lost include severing relationships with colleagues, healthcare plans, paid time off, pension plans, and opportunities for job advancement (Holtom & O'Neill, 2004). Other sacrifices of leaving a job according to Mitchell and Lee (2001) can include loss of community benefits such as established physician-patient relationships, community wellness promotion activities and seniority in an organization.

## **Literature Review**

As the population of the United States continues to increase, and individuals continue to gain access to healthcare, there will be a need to improve models of practice for PCP retention (Kirch & Petelle, 2017). Literature has focused on the need to create PCMH, ACOs, and concierge medicine practices (Anderson, 2014; Christopher et al., 2014). Existing research identified the need for additional PCPs based on increased access to insurance, retiring physicians, resident physicians choosing careers in specialties, and an increase in the total U.S. population (Cascardo, 2014a; Collins, 2012; Fodeman & Factor, 2015; Gudbranson, Glickman & Emanuel, 2017; Kirch & Petelle, 2017). Several studies both quantitative and qualitative focused on retention and recruitment strategies in healthcare (Cohn et al., 2009; Cornfield et al., 2013; El Koussa et al., 2016; Fibuch & Ahmed, 2015). These studies identified the need to retain physicians, start recruiting PCPs in medical schools, increase the income of PCPs to make it more attractive to young physicians, and provide a work-life balance for physicians (Cohn et al., 2009; Cornfield et al., 2013; El Koussa et al., 2016; Fibuch & Ahmed, 2015).

The remainder of this chapter will identify the literature review on the constructs of primary care in the United States, PCP shortages, PCP work-life balance,



compensation, administrative responsibilities and job satisfaction. The constructs for this exploratory study develop the significance for understanding if there is a presence, absence, or direction of a relationship between physician benefits (income, satisfaction, work-life balance), administrative responsibilities, retention, and the model of practice (traditional, concierge, or hybrid) chosen by PCPs.

### **Primary Care Physician Shortage**

Yee, Boukus, Cross, and Samuel (2013) explained that adequate access to care is a major concern of health care administrators, patients, physicians, and other stakeholders. PCPs are often frustrated with increased demands from insurers, and an increased workload (Fortney, Luchterhand, Zakletskaia, Zgierska, & Rakel, 2013). In addition, the income for PCPs is lower when compared to a surgeon or specialist (Fortney et al., 2013). The number of physicians entering the field of primary care continues to decrease as the number of patients with access to healthcare insurance increases (Petterson et al., 2015). A study conducted by Petterson et al. (2015) using the National Ambulatory Medical Care Survey to calculate primary care utilization used data from the U. S. Census Bureau to project demographic changes in conjunction with the specialty board as well as data from the American Osteopathic Association, to estimate the annual production of primary care residents. Findings revealed that the number of residents pursuing primary care medicine is unable to meet future demands and will result in a shortage of PCPs. Petterson et al. (2015) recommended future research to determine how or whether new payment models will affect PCP recruitment and attention.

It is estimated there are currently over 440,000 practicing PCPs (Gudbranson et al., 2017). However, the demand for PCPs exceeds the current supply (Gudbranson et al.,



2017). The American Medical College estimates that by 2030 the United States will need an additional 40,800 to 104,900 physicians for every medical specialty (Gudbranson et al., 2017). This need includes an additional 52,000 PCPs to meet the needs of the increasing population of all ages and insurance expansion in the United States (Fodeman & Factor, 2015).

The aging of the current population of PCPs also contributes to the shortage (Petterson et al., 2015). In 2015, roughly 23% of PCPs were 65 years or older (Dellinger, Pellegrini, & Gallagher, 2017). Petterson et al., (2015) estimated over 2,500 PCPs were set to retire in 2015. By 2035 it is estimated 33,283 of the 52,000 PCP shortages, will be attributed to retiring PCPs (Petterson et al., 2015).

As aging physicians retire, the patient panel size increases for those PCPs still practicing. In addition, the number of baby boomer patients with age-related health conditions will require additional time with PCPs and may affect appointment accessibility (Verdon, 2016). Research demonstrated that the increasing patient panel is a contributing factor to the burnout of some PCPs (Fortney et al., 2013). PCPs are at the greatest risk of burnout with up to 60% of PCPs reporting burnout due to a larger patient panel and longer working hours (Fortney et al., 2013). The average patient panel for concierge medicine physicians is between 200 to 600 patients and may contribute to PCP retention (Altschuler et al., 2012).

Identifying ways to retain PCPs is important to ensuring appointment accessibility for patients (Verdon 2016). Recruiting PCPs should start in medical school and residency (Fortney et al., 2013). Understanding what contributes to the projected PCP



shortage and identifying if different models of care may assist in PCP retention (Petterson et al., 2015).

## **Primary Care Physician Retention**

Physician retention is defined as the ability to recruit and retain high performing physicians in the medical practice setting and important to the sustainability and finances of health care organizations (Cohn et al., 2009; Fibuch & Ahmed, 2015). In 1999 the average recruitment cost to replace a PCP was \$40,050 (Fibuch & Ahmed, 2015). By 2010, the average cost to health care organizations to recruit a physician was \$235,000 (Pratt, 2010). When factoring in lost revenue, recruiting fees, advertisements, and interview costs, the cost to replace a physician can potentially cost healthcare organizations \$500,000-\$1,000,000 (Shanafelt et al., 2017). Often when a physician leaves an organization, they take knowledge, and their expertise, patients and referrals leave, and access to care may decrease for the patient and for the organization until a replacement is hired (Fibuch & Ahmed, 2015; Hariharan, 2014).

Organizations successful with retention must first identify what factors contribute to physician satisfaction (Hariharan, 2014). Factors that influence physician retention include; flexible work hours, work-life balance, sense of job fulfillment, workload, and the number of physicians within a practice to collaborate and share the workload (Cameron et al., 2012; Cornfield et al., 2013; El Koussa et al., 2016). There is a gap in the literature that examines the relationship between the benefits and retention of PCPs practicing in the existing models of care as well as the benefits of a practice model that contributes to PCP retention in the workplace. Knowledge of this relationship benefits



healthcare administrators in the promotion of discussions and planning to retain their PCPs, and when necessary recruit replacements.

## **Primary Care Physician Satisfaction**

Physician satisfaction is defined as physicians who are content with the work they perform, their type of practice, income earned, and work-life balance (Coleman et al., 2015). Studies show that the main source of physician satisfaction is spending quality time with patients (Bogue, Guarneri, Reed, Bradley, & Hughes, 2006; Pratt, 2010). In the traditional practice model, PCPs state that there is not enough quality time with their patients and that 39% of their day is spent on documentation, care coordination, responding to emails, filling prescriptions, following up on test results, and speaking with patients and families (Fodeman & Factor, 2015).

Additionally, the presence of a good work environment with supportive staff and clinical resources has led to physician satisfaction and retention (Cascardo, 2014c). Cascardo (2014b) stated that PCPs are more likely to stay in a practice when they have quick access to the equipment, accessibility of patient data, reasonable schedules, and professional colleagues. Therefore, it is important to understand what factors drive physician satisfaction as increased physician satisfaction has been attributed to quality patient outcomes and increased retention (Dyrbye et al., 2013).

### **Primary Care Physician Work-life Balance**

Work-life balance has been identified as a leading contributor to physician retention (Savageau, Cragin, Ferguson, Sefton, & Pernice, 2016). Work-life balance is defined as a job with a work schedule that provides adequate time for family, hobbies, and lifestyle outside of work (Starmer et al., 2016). The younger physician entering



primary care medicine today is more concerned about having a healthy work-life balance and looking for flexible hours, nonclinical days, and job sharing in comparison to their older counterpart who was more likely to put work before their personal life (Hariharan, 2014; Keeton, Fenner, Johnson, & Hayward, 2007).

In their study, Shanafelt et al. (2015) found that only 36% of physicians of all specialties reported work-life balance compared to 61.3% of other industries in the United States general population based on burnout, hours worked per week, suicidal ideation, symptoms of depression, and satisfaction with work-life balance. Other studies show evidence that in general, physicians with families regardless of specialty, were more likely to be unsatisfied with work-life balance and the inability to spend time with their children and that regardless of specialty or family status physicians' schedules did not allow for a life outside of work (Shanafelt et al., 2015; Strong et al., 2013).

The concierge model of practice allows PCPs the ability to reduce workload and create flexible hours of operation (Carnahan, 2007; CMT, 2013; Paul & Skiba, 2016). Flexible work hours of operation allow administrators additional options when scheduling staff and provide additional access to patient care (Brunner, Bard, & Kolisch, 2009). In order to retain PCPs and increased provider satisfaction, identifying ways to promote work-life balance is a high priority for administrators that will access with creating patient access to preventative care (Savageau et al., 2016).

### **Physician Burnout**

Primary care is a field of medicine with the largest delivery of outpatient care that includes general medicine, family practice, and internal medicine (Liaw et al., 2016). According to the 2015 National Ambulatory Medical Care Survey posted on the CDC



website, in 2015 there were 990.8 million office visits in the United States; 51% of these patient visits were to a PCP (CDC, 2017). The average patient panel for PCPs is 2,300 and increasing. (Altschuler et al., 2012). Increasing patient panels, hours, and documentation requirements have led to the burnout of some physicians (Fodeman & Factor, 2015). It is estimated PCPs spend 20% to 33% of their time performing functions related to patient care including charting and documentation (Dunham et al., 2013; Masini, 2014).

Physician burnout is "characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment" (Jager, Tutty, & Kao, 2017, p. 416). Dyrbye et al., (2013) found physicians, whether PCP or specialist, report experiencing burnout in the middle of their career and are more likely to leave their medical careers altogether. As a result of physician turnover caused by burnout, access to care and morale in the workplace decrease (Linzer et al., 2014). The effects of burnout can lead to medical negligence, malpractice litigation, and limited time to address patient concerns and questions (Anagnostopoulos et al., 2012). Studies have identified physicians with burnout also leads to a strained patient-provider relationship resulting in lower patient satisfaction scores that can impact value-based reimbursement compared to physicians who do not show signs of burnout (Anagnostopoulos et al., 2012; Balducci, 2017). Physicians who display signs of burnout have been noted to not communicate effectively with patients, discount patient concerns, lack empathy, and are more hesitant to prescribe medications (Sun et al., 2017). In a study conducted by Anagnostopoulos et al. (2012), physicians who were burned out were emotionally detached from their job, displayed lower motivation, and perceived reduced personal accomplishments. Conversely, a study



of PCPs by Christopher et al. (2014) who had reduced work hours were more satisfied in their work environment.

### **Reimbursement Patterns – Volume to Value Transitions**

A major concern for PCPs is lower income compared to a surgeon or specialist ("Work-life balance skewed for many PCPs," 2013). Income for PCPs has risen annually yet, there are different compensation models for primary care and salaries vary based on the region of the United States a physician practices (Olson, 2012). When compared to physicians in other specialties, the average PCP has a combined lifetime financial gap of \$3.5 million (Collins, 2012). Lower income potential and increasing workload has hindered recruitment efforts of new PCPs as many are opting to specialize to improve their income (Fortney et al., 2013). In order to retain PCPs, many organizations are offering loan repayment programs and the ACA is offering some organizations additional reimbursement (Fodeman & Factor, 2015). For example, the ACA provided an additional 10% bonus incentive from 2011-2016 for PCPs who conducted annual wellness visits and preventive services on at least 60% of their patients (Klink, 2015).

Physician reimbursement is moving from the traditional fee-for service model which paid providers on the number of services performed to a value-based purchasing (VBP) structure (Balducci, 2017). The VBP model was developed to improve healthcare efficiency and quality of care with financial reimbursed on the quality of patient care, patient outcomes and satisfaction (Balducci, 2017; Kondo et al., 2016). With VBP, a percentage of revenue is held back from participating institutions and paid out as an annual incentive if quality metrics are met (CMS, 2013a).



## **Traditional Primary Care Model(s)**

The traditional primary care medicine practice model provides the largest outpatient delivery of care in the United States (Liaw et al., 2016). Traditional practices are delivered in two models either private or group practice. Reimbursement discrepancies often require PCPs to work longer hours and see additional patients (Clark, Friedman, Crosson, & Fadus, 2010). Studies evaluating the traditional practice model to deliver primary care report that patients often have increased wait times to be seen, physicians experience lower reimbursement compared to a surgeon or specialist, have an increased cost of care delivery resulting in increased physician frustration (Masini, 2014).

Recruiting young physicians to the traditional model of primary care continues to be a struggle as PCPs earn less per year compared to physicians entering a specialty practice (Olson, 2012; Sinsky et al., 2013). Primary care physicians in solo and group practices have higher administrative costs in the traditional care model which includes the additional cost of billing specialists to submit claims for reimbursement (Paul & Skiba, 2016). However, PCPs in a group practice have an added benefit of shared resources, risk management, reduced work hours, and capital (Liaw et al., 2016).

## **Concierge Primary Care Model**

The concierge primary care model is defined as a business model of care where PCPs practice medicine under a retainer with their patients while limiting the size of their practice to increase access to care (Stillman, 2010). Patients pay an annual retainer for longer appointment time, 24-hour access to a physician, and in some cases house calls (Kirkpatrick, 2002). It has been stated that PCPs are attracted to the concierge business model due to increased income and a smaller patient panel (Brennan, 2005). The average



patient panel for a PCP practicing in a concierge model of care is significantly less than PCPs in a traditional model of care ranging from 100-600 patients (Altschuler et al., 2012).

Critics of concierge medicine believe the concierge PCPs reduce their patient panel by transferring their sicker patients to other physicians (Brennan, 2005). Those opposed to concierge medicine believe patients who can't afford the retainer fee are pushed off on other PCPs (Brennan, 2005). Ethical arguments raised with concierge medicine are concerns of concierge creating a two-tiered healthcare system that limits care to the wealthy and creates additional access issues on low income areas (Paul & Skiba, 2016).

## **Hybrid Primary Care Model**

The hybrid model of practice is defined as a business model of care where PCPs combine a traditional medical practice with a concierge medicine practice (Gavirneni & Kulkarni, 2014). Concierge patients are seen at specific times, but the remainder of the physician's schedule remains open to other patients (McDonough, 2013). Unlike a full concierge practice, hybrid practices ensure access to all patients, boost PCP income, and does not require PCPs to drastically reduce patients from their panel (Lewis, 2011).

For some PCPs, the hybrid model of concierge medicine presents the challenge of all patients expecting the same level of services which can lead to more work and stress (Kihm, 2011). Some consider concierge medicine a way to earn more revenue while reducing workload (Hertz, 2011). For others, the hybrid model offers flexibility with schedules, reduces pressure to see more patients, and offers an incentive to continue practicing medicine (Cascardo, 2014a). The hybrid model of care is often a bridge to



converting a practice from the traditional model of care to a full concierge medicine practice model (Kihm, 2011).

### Conclusion

It is estimated a PCP shortage will create limited access to care for patients and healthcare organizations (Fibuch & Ahmed, 2015). It is important for healthcare organizations to retaining PCPs in medical practice. However, it is equally important to understand the benefits of practice that lead to PCP retention in the medical office setting (Cohn et al., 2009; Fibuch & Ahmed, 2015). Using the job embeddedness theory as a framework this will provide a comparison between the traditional model of primary care and concierge medicine practice models (Hopson et al., 2018; Mitchell et al., 2001).

Chapter 2 provided a discussion and review of literature including pointing out existing gaps related to physician satisfaction and retention in the medical office setting of PCPs. It discussed PCP satisfaction, burnout, and work-life balance. It reviewed changes in reimbursement patterns. It distinguished the difference of the traditional model of primary care, concierge medicine, and hybrid concierge medicine. It provided an introduction of the philosophy of positivism and the theory of job embeddedness which serves as the foundation for this exploratory study. Chapter 3 presents methodology, research design, sample population, data collection, instrumentation, and analysis.



### Chapter 3: Research Methods

Primary care physicians in a traditional care delivery model are found in private or group practices and have a larger panel of patients (Altschuler et al., 2012; Liaw et al., 2016). PCPs who practice concierge medicine reduce their panel size and charge patients a retainer fee for increased same day access to the physician (Altschuler et al., 2012; Doherty, 2015). Those PCPs who practice in a hybrid model have a mixture of concierge medicine and the traditional model of primary care and block specific appointment times to provide increased access to concierge patients, while continuing to see their other patients using a traditional model of care (Cascardo, 2014b; Gavirneni & Kulkarni, 2014). This exploratory study is important to health care administrators to gain an understanding of the various concerns of PCPs based on the practice model in order to improve satisfaction and retain quality physicians. Additionally, concerns with the estimated shortage of PCPs, the direction of healthcare delivery, increased regulatory constraints on PCPs, and the expansion of healthcare coverage will create a need to recruit and retain PCPs for the future (Anderson, 2014; Latham, 2010).

The purpose of this exploratory quantitative study was to investigate the presence, absence, and direction of a relationship between benefits and workplace retention between concierge, hybrid and traditional PCPs. This chapter presents the methodology used to collect the data necessary to address the research questions in this exploratory study. The chapter covered the following topics in detail: restatement of the problem, research design, sampling and recruitment, and data analysis. The analysis includes the collection, scrubbing, identification of missing values, outliers, descriptive and inferential statistics of the data necessary to determine whether or not there is a presence, absence



and direction of a relationship between physician benefits and retention and the model (traditional, concierge, or hybrid) of practice chosen by PCPs.

Current literature has predicted a shortage of PCPs, the need for additional PCPs, and the need to retain current physicians (Anderson, 2014; Latham, 2010). Contributing factors to the shortage of PCPs include; physicians born between 1945 and 1964 who are retiring, the increasing cost of malpractice insurance, the rising cost of operating a medical practice, cuts in Medicare and Medicaid reimbursement, and concerns about work-life balance (Ko et al., 2009). Research demonstrates that PCPs in a traditional practice model have an average panel of 2,300 patients (Altschuler et al., 2012). Concierge physicians, on average, have a patient panel size of 100-600 patients (Altschuler et al., 2012). A later study demonstrated PCPs choosing to practice concierge medicine reduce their patient load by an average of 80% to provide longer visits and individual care (Paul & Skiba, 2016).

Research also demonstrated that concierge physicians are more likely to have satisfied patients, provide higher quality care, and have the ability to remain financially stable to continue his or her practice (CMT, 2013; Gavirneni & Kulkarni, 2014). Additionally, concierge physicians have control over how many patients they treat, and the length of time spent with each patient (Gavirneni & Kulkarni, 2014). There is no clear empirical evidence, however, of the presence, absence, or direction of a relationship between the benefits of concierge medicine and physician retention.

### **Research Design**

Quantitative research is a scientific method used to test objective theories using relationships between variables to shape the knowledge of a subject (Creswell &



Creswell, 2018). Quantitative research is best used to collect a large amount of data in a short time through experimentation or surveys and uses statistical models to report the findings (Rahman, 2017). This exploratory quantitative study will use a non-experimental correlational approach to

Quantitative research is the dominant postpositive model used to support experiments, survey data and the approaches to statistical analysis (Rahman, 2017). Henderson (2011) defined the post-positive approach as a philosophy that suggests an ideology or approach to advance scientific knowledge in a field, provide practical benefits, or solutions to a problem. Taylor and Medina (2013) added to this philosophy stating that post-positivism is an approach used to yield objective and general knowledge when seeking to affirm the presence or absence and direction of a relationship among pre-defined variables. Therefore, this model provides the most effective tool for the proposed exploratory study.

A correlational approach may be used to analyze the presence, absence and direction of a relationship between variables and generalize the findings in a population (Guetterman, Fetters, & Creswell, 2015). The proposed format will allow the theory of job embeddedness to be approached using a deductive process and ensure enough protection from unintentional bias (Creswell & Creswell, 2018; Guetterman et al., 2015). Conducting a quantitative study allows the researcher to provide alternative explanations and generalize where possible (Rahman, 2017).

### **Research Questions**

In a quantitative correlational study research questions are used to identify the presence, absence, or direction of a relationship between variables and narrow the focus



of a study (Creswell & Creswell, 2018). Supporting questions identify dependent and independent variables to be compared in order to determine whether a relationship exists in order to fill the gap in existing literature (Connelly, 2015). The independent variable for this exploratory study is the practice model (traditional, hybrid or concierge). The dependent variables for this exploratory study are the benefits of the practice model (income, physician satisfaction, work-life balance), physician retention and administrative responsibilities.

The hypotheses of a quantitative study create a prediction of an outcome of relationships among research variables (Creswell & Creswell, 2018). Connelly (2015) stated that the hypotheses outline the relationship between the independent and dependent variables in a study. Creswell and Creswell (2018) identify two types of hypotheses, the null and alternative hypotheses. The null hypotheses predict no significant difference among variables while the alternative hypotheses predict the expected outcome among variables (Creswell & Creswell, 2018). The overarching research question for this exploratory quantitative study seeks to investigate whether there is a presence, absence and direction of a relationship between physician benefits and retention and the model (traditional, concierge, or hybrid) of practice chosen by PCPs and supports the following research questions.

## **Research Question 1**

Is there a relationship between the physician practice model and primary care physician retention in a medical practice?

 $H_1$  There is a statistically significant relationship between the physician practice model and primary care physician retention.



H<sub>0</sub> There is no statistically significant relationship between the physician practice model and primary care physician retention.

## **Research Question 2**

Is there a relationship between the primary care physician practice model and the income earned?

H<sub>1</sub> There is a statistically significant relationship between the primary care physician practice model and the income earned.

 $H_0$  There is no statistically significant relationship between the primary care physician practice model and the income earned.

## **Research Question 3**

Is there a relationship between the primary care physician practice model and physician satisfaction?

 $H_1$  There is a statistically significant relationship between the primary care physician practice model and physician satisfaction.

 $H_0$  There is no statistically significant relationship between the primary care physician practice model and physician satisfaction.

### **Research Question 4**

Is there a relationship between the primary care physician practice model and the effect on work-life balance?

 $H_1$  There is a statistically significant relationship between the primary care physician practice model and work-life balance.

 $H_0$  There is no statistically significant relationship between the primary care physician practice model and work-life balance.



## **Research Question 5**

Is there a relationship between the primary care physician practice model and administrative responsibilities?

H1 There is a statistically significant relationship between the primary care physician practice model and administrative responsibilities.

H0 There is no statistically significant relationship between the primary care physician practice model and administrative responsibilities.

## Sampling and Recruitment

Recruiting participants began with setting the criteria for the study (Valerio et al., 2016). This exploratory quantitative study sought to identify PCPs employed in either a traditional, hybrid, or concierge medicine practice model of care. Traditional practice settings are composed of private practice either as a solo practice, or group practice (Liaw et al., 2016). Concierge medicine is predominantly located in larger cities, on both the east and west coast, and clustered in higher income areas (Dalen & Alpert, 2017). Concierge medicine is becoming more popular in other parts of the country as PCPs realize the potential of increased income and smaller patient panels (Brennan, 2005). Hybrid practice settings have a mixture of concierge medicine and the traditional model of primary care (Cascardo, 2014b).

## Population

Primary care physicians were initially identified from those practicing in the following Midwest states: Iowa, North Dakota, and South Dakota. These states previously reported an increased demand for concierge medicine services due to a low number of practicing concierge physicians and the increased demand from patients for



concierge medicine (CMT, 2013). While there is limited research on concierge practices in the Midwest; one publication reported that the number of patients seeking a concierge medicine provider exceeds the number of providers in this area (CMT, 2013). However, due to the low response rate, the sample was increased to the population of PCPs practicing in the United States. In the final analysis, responses were received from Alabama, Alaska, Arizona, and Iowa.

# **Inclusion Criteria**

- The population for this exploratory study included physicians practicing in the categories of general medicine, family practice, internal medicine. For this exploratory study, this group of physicians are defined as PCPs.
- PCPs practicing in the states of Iowa, North Dakota, and South Dakota
- Primary care physicians practicing in either a traditional model, hybrid model or concierge medicine model are included. Participants were selected based on their chosen profession of primary care.
- PCPs who have been in practice 1 year or longer.

# **Exclusion Criteria**

- The population for this exploratory study excluded all specialists and physicians not practicing in the categories of general medicine, family practice, and internal medicine.
- This exploratory study excluded PCPs who have been practicing less than 1 year.

# **Selection of Participants**

The population sample was selected using convenience sampling. Convenience sampling is non-probability or nonrandom methodology used to reach a target population



(Farrokhi & Mahmoudi-Hamidabad, 2012). Etikan, Musa, and Alkassim (2016) stated convenience sampling is used when research participants in a target population meet certain criteria, are easily accessible, in proximity geographically, and are willing to participate. The disadvantage of using convenience sampling is the likelihood of creating biases and the inability to represent a total population (Etikan et al., 2016). However, when conducting research through surveys, convenience sampling is the most common methodology used in quantitative research (Etikan et al., 2016; Farrokhi & Mahmoudi-Hamidabad, 2012).

## Sample

This population was determined from a listserv obtained through Redi-Data a licensee of the American Medical Association (AMA) that maintains the Physician Professional Database (PPD) for mailing purposes. The PPD was chosen as it listed all U.S. physicians, not just AMA members. The initial population included PCPs (general medicine, family practice, and internal medicine) in Iowa, South Dakota, and North Dakota. An initial query into the PPD was executed by Redi-Data which yielded a population of 2,176 practicing PCPs in the targeted states. The number of practicing PCPs in Iowa was calculated as 1,342, North Dakota 376, and South Dakota 458.

### **Rationale for Sample**

By 2025, it is anticipated that there will be a shortage of more than 40,000 PCPs (Petterson et al., 2015). This shortage may result in a negative impact on the future of patient care if not addressed (Anderson, 2014). Cohn et al. (2009) noted that two ways to increase the number of available PCPs included recruitment packages and retention.



Gaining a PCP perspective as to what benefits improve recruitment and retention may help to understand the reasons why PCPs choose a practice model. There is a gap in the literature using a quantitative study to explore the presence, absence, or direction of a relationship between the benefits of concierge medicine and physician retention in the medical practice setting. The outcome of this exploratory study may contribute to the existing body of research by providing the benefits a PCP seeks when choosing a medical practice model and may provide insight into physician retention.

## Recruitment

Redi-Data does not provide the information to the researcher and does not allow random selection from the chosen population. Rather the invitations to participate were sent to all 2,176 identified PCPs in Iowa, North Dakota, and South Dakota on three different occasions ten days apart. To verify that the email was sent, the recruiting email sent by Redi-Data included the name and email of the research investigator. In addition, Redi-Data provided a weekly tracking report to the researcher as to how many emails were sent, the number that were opened and the number of click throughs (M. Michael Ciccarella, personal communication, January 25, 2019).

The recruitment email contained an HTML formatted introduction (See Appendix D) written by the investigator as to the purpose of the project and an invitation to participate as well as an access link to Survey Monkey where the informed consent (See Appendix E) and questionnaire was included. According to information from Redi-Data, its average response rate is 3% on the first mailing and 4% on the second (M. Michael Ciccarella, personal communication, December 14, 2018). The exploratory study remained open for 5 months. In total, Redi-Data sent three recruitment emails. The first



and second emails were sent 10 days apart. Despite a rigorous recruitment effort using various forms of convenience sampling, the response rate continued to be low. Therefore, the criteria for inclusion was expanded to include all PCPs within the United States and a third email was sent once the survey was opened to all PCPs practicing in the United States was sent by Redi-Data. In addition, the survey link was placed on LinkedIn by the researcher inviting all PCP to participate.

## Sample Size

The sample size for this exploratory study was determined using G\*Power. G\*Power is statistical software used to calculate the power and sample size of common statistical tests including one-sample correlation, Pearson correlation, simple linear regression coefficients, multiple linear regression, logistic regression coefficients, and Poisson regression coefficients (Faul, Erdfelder, Buchner & Lang, 2009). The power of a "statistical test is the probability that its null hypothesis (H0) will be rejected given that it is in fact false" (Faul, Erdfelder, Lang & Buchner, 2007, p. 175). The sample size for this exploratory study, computed by G\*Power is 138 participants using a correlation  $\rho$  H1 of 0.3,  $\alpha$  err prob of 0.05, and a power of 0.95 as indicated in Figure 2.





Figure 2. Exact Correlation: Bivariate normal model exported from G\*Power

## **Data Collection Procedures**

## Instrumentation

The self-administered survey instrument for this exploratory study was the American Medical Group Association (AMGA) Provider Satisfaction Survey (PSS). Permission was obtained to use and publish results using this survey from AMGA (see appendix B). The AMGA PSS is a validated national survey used to benchmark provider satisfaction among physicians in healthcare organizations (AMGA, 2018; Callahan, Nienaber, Hendrie, & Tierney, 1992). Validity in a quantitative study is the degree to which a concept is accurately measured (Heale & Twycross, 2015). The AMGA PSS is a validated tool used to assess physician experience, perceptions and attitudes (Kerr et al., 1997; Panattoni et al., 2017).

The basis of the PSS was adopted from the Medical Outcomes Study physician satisfaction survey (Kerr et al., 1997). The Medical Outcomes Study was originally 16 items and expanded to include physician relations with patients, quality of care provided,



physician availability to treat patients based on their judgement, and physician availability to obtain specialty referrals. The survey used a 5-point response scale with a mean of 3.51, a standard deviation =0.99, and the internal consistency reliability of 0.87 (Kerr et al., 1997). This instrument for this cross-sectional was selected based on results from previous research in its ability to provide the perspective of the physician regarding various categories of a practice model and (Panattoni et al., 2017; Scammon et al., 2014). This exploratory study was designed to assist in answering supportive questions regarding the relationship between the model of physician practice and job embeddedness.

The survey for this exploratory study was distributed through email to PCPs practicing in PCPs practicing in the United States with an embedded link to Survey Monkey. The literature demonstrates an average 28% response to electronic surveys over a 16% response to mailed surveys (Deutskens, de Ruyter & Wetzels, 2006). The benefits of using an electronic survey include the ability to reach participants in multiple locations, be administered in a time-efficient manner, respondents can answer at a convenient time, easily tabulated and responses can be downloaded easily for analysis and administered at a low cost (Evans & Mathur, 2005; Leggett, 2017).

In addition to questions from the AMGA PSS, this exploratory study included questions to identify the state, demographics of the PCP, physician practice model and length of time the PCP has been practicing medicine. Participants that did not meet the stated inclusion criteria, were directed to a thank you page and exited out of the survey. The estimated time to complete the survey is 10 - 15 minutes (AMGA, 2018). This information was included in the emailed invitation.



The independent variable for this exploratory study was the practice model (traditional, hybrid or concierge). The dependent variables for this exploratory study were the benefits of the practice model (income, physician satisfaction, work-life balance) and physician retention. The AMGA PSS (Appendix A) was uploaded into Survey Monkey in its entirety. The survey consisted of 12 demographic questions and 51 additional questions. Questions were checked for spelling accuracy ensuring that questions matched the AMGA PSS.

Table 2 lists each research question, specifies the dependent and independent variables as well as the applicable survey questions used to gather data used to test the hypotheses.



#### Table 2

#### Variables and Instrument Alignment

Research Questions	Variables	Analysis Format
Is there a relationship between the physician practice model and primary care physician retention in medical practice?	Independent Variable: practice model Dependent Variable: physician retention	<ul> <li>Career advancement opportunities are available to me in the same way they are available to my colleagues</li> <li>If I were to choose a new practice setting today, I would choose this group</li> <li>I am likely to leave this group in the next twelve months</li> </ul>
Is there a relationship between the primary care physician practice model and the income earned?	Independent Variable: practice model Dependent Variable: income earned	<ul> <li>Total earnings from your practice</li> <li>Executive compensation in your group</li> <li>Amount of work required for the pay you receive</li> </ul>
Is there a relationship between the primary care physician practice model and physician satisfaction?	Independent Variable: practice model Dependent Variable: physician satisfaction	<ul> <li>Quality of care you are able to provide</li> <li>Amount of time you are able to spend with each patient.</li> <li>Your relationships with patients</li> <li>Your patients' expectations/demands</li> <li>Your patients' adherence/compliance with instructions</li> <li>Continuity of patient care you are able to provide</li> <li>Your access to computers</li> <li>The availability of on-line services (e-mail, Internet, Intranet)</li> <li>Your overall medical practice</li> <li>Medical supplies are available when I need them</li> <li>Non-provider staff in my practice supports my professional judgement.</li> <li>My non-provider colleagues are a major source of personal support.</li> <li>I have adequate equipment for office procedures</li> <li>Non-provider staff in my practice reliably carry out clinical instructions</li> <li>My values are consistent with those of my colleagues</li> <li>I am isolated from my colleagues because of ethnic, cultural, gender or sexual orientation differences</li> <li>My values conflict with the group's organizational values</li> <li>The medical group is supportive of providers who choose to work parttime</li> <li>My use of clinical guidelines (care pathways) improves the quality of care I am able to provide</li> <li>Using an electronic medical record has improved my practice</li> </ul>
Is there a relationship between the primary care physician practice model and the effect on work- life balance?	Independent Variable: practice model Dependent Variable: work-life balance	<ul> <li>Time you have available for your family and personal life</li> <li>Amount of time you spend working</li> <li>My role in managing the business aspects of my practice is not a burden to me</li> <li>My colleagues support my efforts to balance family and work responsibilities</li> <li>The morale in your group</li> </ul>
Is there a relationship between the primary care physician practice model and administrative responsibilities	Independent Variable: practice model Dependent Variable: administrative responsibilities	<ul> <li>My specialty is treated equitably in terms of compensation, resources, and scheduling</li> <li>Degree of control you have over your schedule</li> <li>Your ability to refer patients to high quality specialists</li> <li>The responsiveness of your information systems department</li> <li>Paperwork required by payers is a burden to me</li> <li>I have too much administrative work to do</li> <li>There are not enough support staff in my practice</li> <li>Non-provider staff in my practice are not accommodating</li> <li>The volume of my patient load or panel size is reasonable</li> <li>Administrators emphasize productivity to the detriment of quality care</li> <li>There is an adversarial relationship between providers and administrators at our group</li> </ul>



The purpose of the demographic section of the survey instrument was to gather specific information from the selected population. These factors were chosen to provide additional insight as to whether specific demographic characteristics influenced the chosen practice model and satisfaction. Each question of this component is noted in Table 3 with the rationale for selection.

Table 3

Question	Rationale	
How many years have you been a practicing	This question serves to qualify the participant for	
primary care physician? (Round to the nearest	the survey – inclusion criteria require physicians to	
year)	have been in practice for at least one year.	
Indicate your type of primary care medicine;	This question serves to identify and allow data to be considered by primary care category	
Are you in a group or a solo practice?	This question serves to identify and allow data to be considered by practice type.	
Practice type:	This question serves to identify and allow data to be considered by practice type.	
State Practice is Located	This question serves to identify and allow data to be considered by state.	
How many patients (including new and established) do you see in a typical week of practice?	This question serves to identify and allow data to be considered by number of patients in practice model.	
What is your age?	This question serves to identify age of participants.	
What is your gender?	This question serves to identify gender of participants.	
Do you practice full time or part time?	This question serves to identify and allow data to be considered by type of position.	
If you work part time, what is your percent of Full Time Equivalence	This question serves to identify and allow data to be considered by FTE.	

Rationale for Demographic Questions

The informed consent and questionnaire and were loaded into Survey Monkey and selected participants were invited via email sent by Redi-Data containing a link to the informed consent and survey to participate. The email explained the purpose of the study



and the estimated time necessary to complete the survey. Upon indicating agreement at the conclusion of the informed consent participants could begin the survey.

## Rationale

This exploratory study incorporated the theory of job embeddedness in order to evaluate findings and answer the research questions. The rationale was to understand why some individuals stay in their current position while others leave an organization (Mitchell et al., 2001) and the use of the AMGA PSS provided the tool to explore these factors. A previous study used AMGA PSS to measure organizational culture and physician satisfaction after transitioning from a traditional practice model to a Care by Design delivery model implemented at the University of Utah Community Clinics in the primary care setting (Scammon et al., 2014). The study concluded that provider's satisfaction was enhanced as a result of the change in practice model including attention to effective practice delivery methods and adequate resources (Scammon et al., 2014). Another study (Panattoni et al., 2017) using this instrument investigated the physician experience with improving chronic care management and transforming the care delivery in the primary care setting. This study concluded that physician satisfaction of proactive patient outreach, pre-visit schedule grooming, depression screening, care planning, health coaching regarding patient outcomes in the patient's self-management of hypertension and diabetes

## **Data Analysis**

Quantitative research using a survey emailed by SurveyMonkey was used to gather and measure statistical data portrayed in numbers allowing the researcher to test hypotheses (McCusker & Gunaydin, 2015). Once the survey closed, data were



downloaded from Survey Monkey to an Excel spreadsheet. The data were scrubbed and reviewed for completeness and then the scrubbed data were uploaded to IBM-SPSS Statistics version 25 for statistical analysis. The second section of data analysis incorporated various inferential statistical calculations including one-way analyses of variance (ANOVA) and Pearson product moment correlation, to address and answer the various research questions. All decisions relating to the statistical significance of the analyses used a criterion alpha level of .05. An alpha level of .05 is the standard level used to test the statistical significance and the probability of rejecting the null hypothesis (Haig, 2017).

The descriptive analysis of the demographic data included frequency distributions, as well as measures of central tendency and percentages in order to obtain a profile of the participants. Table 4 provides an explanation for each research question, variables considered, and statistical analysis used.



### Table 4

Research Question	Variables	Statistical Analysis
Is there a relationship between the physician practice model and	Independent Variable: practice model	Pearson moment correlation and ANOVA
primary care physician retention in medical practice?	Dependent Variable: physician retention	
Is there a relationship between the primary care physician practice	Independent Variable: practice model	Pearson moment correlation and ANOVA
model and income earned?	Dependent Variable: income earned	
Is there a relationship between the primary care physician practice	Independent Variable: practice model	Pearson moment correlation and ANOVA
model and physician satisfaction?	Dependent Variable: physician satisfaction	
Is there a relationship between the primary care physician practice	Independent Variable: practice model	Pearson moment correlation and ANOVA
model and the effect on work-life balance	Dependent Variable: work-life balance	
Is there a relationship between the primary care physician practice	Independent Variable: practice model	Pearson moment correlation and ANOVA
model and administrative responsibilities	Dependent Variable: work-life balance	

Research Question, Variables Considered, and Statistical Analysis

Quantitative research is used to measure numerical and statistical data; it allows the researcher to test hypotheses (McCusker & Gunaydin, 2015). The independent variable for this exploratory study was the practice model (traditional, hybrid or concierge). The dependent variables for this exploratory study were the benefits of the practice model (income, physician satisfaction, work-life balance) and physician retention.

The statistical analysis applied to describe the data for each research question is as follows:

# **Research Question 1**

Is there a relationship between the physician practice model and primary care physician retention in a medical practice?



Statistical Analysis: A description of the various types of physician practice models and retention of PCPs was provided. The data were collected using a survey with questions rated on a Likert scale with and descriptive analysis. Data will be analyzed using ANOVA and Pearson moment correlation. If the  $\rho$  value is less than 0.5 the null hypotheses will be rejected.

## **Research Question 2**

Is there a relationship between the primary care physician practice model and the income earned?

Statistical Analysis: The relationship between the type of physician practice model and income earned of the PCP was measured on a Likert scale and descriptive analysis. Data will be analyzed using ANOVA and Pearson moment correlation. If the  $\rho$  value is less than 0.5 the null hypotheses will be rejected.

### **Research Question 3**

Is there a relationship between the primary care physician practice model and physician satisfaction.

Statistical Analysis: The relationship between the type of physician practice model and physician satisfaction was measured using a Likert scale and descriptive analysis. Data will be analyzed using ANOVA and Pearson moment correlation. If the  $\rho$  value is less than 0.5 the null hypotheses will be rejected.

#### **Research Question 4**

Is there a relationship between the primary care physician practice model and the effect on work-life balance?



*Statistical Analysis*: The relationship between the type of physician practice model and work-life balance of the PCP was measured on a Likert scale and descriptive analysis. Data will be analyzed using ANOVA and Pearson moment correlation. If the  $\rho$  value is less than 0.5 the null hypotheses will be rejected.

### **Research Question 5**

Is there a relationship between the primary care physician practice model and administrative responsibilities?

Statistical Analysis: The relationship between the type of physician practice model and administrative responsibilities of the PCP was measured on a Likert scale and descriptive analysis. Data will be analyzed using ANOVA and Pearson moment correlation. If the  $\rho$  value is less than 0.5 the null hypotheses will be rejected.

### Assumptions, Limitations and Delimitations

Assumptions in research are unfounded beliefs that are not tested with theory (Creswell & Creswell, 2018). Limitations, according to Turner, Cardinal, and Burton (2017) describe elements of the study design that will have impact on the outcome of the study. Delimitations are measures within a research design the researcher will not take during the study which can include exclusion of a portion of a population (Creswell & Creswell, 2018).

This exploratory study was limited in that the sample is restricted to PCPs practicing in Alabama, Alaska, Arizona and Iowa. Therefore, the findings may be based on geographic and socioeconomic conditions of physicians in this region. The study will not be able to make claims that are representative of the entire population of concierge physicians. This exploratory study was limited due to physician willingness to



participate. Uncertainty of the future state of health care may change the background of the study.

### Ethics

Conducting research in an ethical manner is the responsibility of the researcher in any study (Creswell & Creswell, 2018). To ensure the protection of each participant the investigator has completed the required National Institute of Health Human Subject Health Training. The investigator also acknowledges the responsibility to comply with all the policies, procedures, and requirements of A.T. Still University in order to protect the rights and welfare of the human participants.

Ethical principles in human research should include disclosure to cause no harm to research participants, informed consent to participate in research activities, and fair treatment of each participant (Curtis & Drennan, 2013). Prior to conducting the study, participants were required to review an informed consent. If after reading, they wished to participate, they clicked a button marked NEXT which indicated consent and opened the survey (See Appendix D). Participants were also given the option to withdraw from the study at any time. Informed consent included a purpose and description of the study, and the name of who to contact regarding questions related to the study (Office for Human Research Protections, 2018). At no time during this study were participants subjected to any psychological or emotional harm. Additionally, anonymity was ensured through the anonymous online survey approach. Collected data were downloaded from Survey Monkey to a security protected USB drive retained in the possession of the investigator. Data will be retained for 3 years after the completion of the study at which time it will be destroyed (Office for Human Research Protections, 2018).



## **Summary**

The purpose of this exploratory quantitative study was to investigate the presence, absence, and direction of a relationship between physician benefits (income, satisfaction, work-life balance), administrative responsibilities, retention, and the model (traditional, concierge, or hybrid) of practice chosen by PCPs. This exploratory study employed a quantitative approach through use of a predetermined, standardized anonymous online based survey to collect the data. Study participants were PCPs located in Alabama, Alaska, Arizona, and Iowa. Chapter 3 presented the methodology, research design, sample population, data collection, instrumentation, and process of analysis for the study. Chapter 4 presents the data analysis, and results of the study, conclusions, limitations, and recommendations.


#### Chapter 4: Findings

This chapter presents the findings from this exploratory study and includes results from PCPs practicing general medicine, family practice, and internal medicine in Alabama, Alaska, Arizona, and Iowa. Data were collected using AMGA PSS via an anonymous online survey using SurveyMonkey. Recruitment emails were sent out three times from August 1, 2019 through January 6, 2020. A thorough discussion of the process of data collection, analyses, and results of the study are presented. Conclusions are discussed along with limitations and recommendations for future research. Recommendations were made to facilitate additional research in identifying the benefits of the practice model (income, physician satisfaction, work-life balance) and physician retention.

#### Overview

A major factor that may have a negative impact on the future of patient care if not addressed is the shortage of PCPs (Anderson, 2014). The overall increase in the population, the increased longevity, and the expansion of healthcare insurance coverage under the ACA has resulted in a need to not only retain current PCPs but to increase the numbers of PCPs in general (Latham, 2010). According to Petterson et al. (2015), the need for PCPs will continue to increase and it is predicted that by the year 2025 there will be a shortage of over 40,000 PCPs. Factors contributing to the shortage of PCPs include; physician retirement, the decreased number of medical students choosing primary care over specialty practice, the increasing cost of malpractice insurance, the rising cost of operating a medical practice, cuts in Medicare and Medicaid reimbursement, and concerns about work-life balance (Ko et al., 2009; Petterson et al., 2016).



According to Liaw et al. (2016), primary care is the largest method for outpatient delivery of health care. The traditional primary care medicine practice model is represented either as a private or solo practice or a group practice. A group practice is defined as a group of physicians who work in the same practice model to share resources, risk management, reduced work hours, and capital (Liaw et al., 2016).

The average number of patients in a primary care provider's patient panel size ranges from 2,500 to 3,000 patients (Gavirneni & Kulkarni, 2014). According to a survey conducted nationally in 2006, 53% of patients reported they were unable to promptly access their primary care provider; by 2011, 57% of patients reported they were unable to promptly access primary care treatment (Ghorob & Bodenheimer, 2012). Traditional models of primary care practice continue to report increased wait times, reduced reimbursement, increased cost of care delivery, and physician frustration (Masini, 2014).

Studies estimated that in a traditional model of primary care, physicians spend 20% to 33% of their time each day performing functions related to patient care outside of an office visit (Dunham et al., 2013). Many of these functions are tied to charting and documentation to seek reimbursement that continues to decline (Masini, 2014). Dwindling reimbursement rates, increased patient load, and a high demand for additional primary care providers has led many physicians to look at alternative models of care delivery (Altschuler et al., 2012).

As present generations in the workforce change, the desires of PCPs entering the workforce have changed as well. These changes have created the desire for PCPs to join group practices or develop other approaches to providing care such as concierge medicine and hybrid practice models ("Physicians ponder changes in their practices," 2011). PCPs



practicing under a traditional care model, typically see patients in a 15-minute time slot, while providers practicing under a concierge model of care typically see patients in a 30 to 60 minute time slot that allows for an in-depth personalized approach to patient care (CMT, 2013; Panattoni et al.,2017). PCPs practicing in a hybrid practice have a mixture of concierge medicine and the traditional model of primary care. The hybrid concierge model provides physicians an opportunity to offer patients the option of concierge care or continued care in the traditional setting (Cascardo, 2014b).

This study explored the existence of the presence, absence or direction of a relationship between physician benefits (income, satisfaction, work-life balance), administrative responsibilities, retention, and the model (traditional, concierge, or hybrid) of practice chosen by PCPs. To understand the relationship between physician benefits and retention and the model of practice chosen by PCPs a survey of PCPs practicing in the United States was deployed and raw data were collected over 5 months through Survey Monkey.

#### Data Analysis Strategy and Organization of Statistic Results

The population for this exploratory study was determined from a listserv obtained through Redi-Data a licensee of the AMA that maintains the PPD for mailing purposes. The population included PCP physicians practicing in the categories of general medicine, family practice, internal medicine in the states of Alabama, Alaska, Arizona, and Iowa. Initially this study was limited to physicians practicing in Iowa, North Dakota, and South Dakota due to the significant demand for concierge medicine services, a low number of practicing concierge physicians in these states and the increase demand from patients for concierge medicine (CMT, 2013). However, due to a low response rate after two rounds



of recruitment emails, the target population was expanded to include all PCPs practicing in the United States. Participants were selected based on their chosen profession of primary care and included PCPs in practice 1 year or longer.

The survey instrument used for this exploratory study was the AMGA PSS. Once the data had been collected it was downloaded from SurveyMonkey for analysis using IBM-SPSS Ver. 25. The data were reviewed for completeness, and two participants were eliminated due to excessive missing information. The data analysis contains descriptive statistics which provided an overview of the sample, and to present a discussion of the findings.

#### **Descriptive Statistics**

#### **Sample Description**

*Age.* The mean age of the PCP participants was 51.9 (SD = 11.97) years. The median age was 57 years. The ages of the PCP participants ranged from 32 to 65 years. Table 5 presents the results of this analysis.

Table 5

Descriptive Statistics: Age of Participants

				Range							
Number	Mean	SD	Median	Minimum	Maximum						
9	51.9	11.97	57	32	65						

*Gender.* There were seven male participants (77.78%) and two females (22.22%) of all participants. Tables 6 presents the results of this analysis.



Descriptive Statistics: Genaer of Participants											
Gender	Frequency	Percentage									
Male	7	77.78									
Female	2	22.22									
Total	9	100.00									

Years in Practice. The mean years in practice for the PCP participants was 21.2 years (SD = 14.92) years. The median age was 28 years. The years in practice range from ranged from 3 to 42 years. Table 7 presents the results of this analysis.

#### Table 7

				Range					
Number	Mean	SD	Median	Minimum	Maximum				
9	28	14.92	28	3	42				

*Type of Practice Descriptions.* Seventy percent of PCPs identified their specialty as Family Medicine, 20% identified their specialty as Internal Medicine, and 10% identified their specialty as general medicine. Eight PCPs were in a group practice model with and one listed as a solo practitioner. Eight participants indicated a traditional practice model and one listed other as their practice model. Table 8 presents these findings.



		Frequency	Percent
Type of	Internal Medicine	2	22.22
Practice	Family Medicine	6	66.67
	General Medicine	1	11.11
Group or Solo	Solo	1	11.11
	Group	8	88.89
Practice	Traditional	8	88.89
Model	Other	1	11.11

Descriptive Statistics: Type of Practice Descriptions

*Number of Patients Seen in Practice in a Week.* The mean number of patients seen in a typical week by PCPs is 75.67 (SD = 60.87). The median number was 60. The number of patients seen in a typical week by PCPs ranged from 25 to 240. Table 9 presents the results of this analysis.

Table 9

Descriptive Statistics: Number of Patients Seen

			Range					
Number	Mean	SD	Median	Minimum	Maximum			
9	75.67	60.87	60	25	240			

Data were collected through Survey Monkey. After the survey was closed data were exported into an Excel file. There were 11 participants. Two respondents were excluded from the study because the participants only completed the demographic questions. The remaining data were cleaned and arranged by research questions and scale. Questions 1-11 were demographic questions. Question 12 was used to answer multiple questions related to physician retention using the following scale (1 =Very Dissatisfied, 2=Somewhat Dissatisfied, 3=Neither Dissatisfied nor Satisfied, 4=Somewhat Satisfied, 5=Very Satisfied). Question 13 answered questions using the



following scale (1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, 5=Strongly Agree).

Once data were arranged, it was uploaded into IBM-SPSS Statistics version 25. Each question represented a variable. Variable names were changed to identify which category they belonged to (income, satisfaction, work-life balance, administrative duties, or retention). Data were then formatted to use a nominal or scale measure with two decimals. Once the data were loaded each value was separated into dichotomous or quantitative variables. Data were then analyzed in IBM-SPSS using descriptive statistics and frequencies which gave an output in percentages as indicated in Tables 10-18 as follows:

*Research Question 1.* Is there a relationship between the physician practice model and primary care physician retention in a medical practice?

To determine if there is a relationship between the physician practice model and retention of PCPs a descriptive analysis was performed. The results of this analysis are presented in Table 10.



	Strongly Agree		Agree		Nether Agree nor		Disagree		Strongly Disagree	
	N	Percent	N	Percent	D N	Pisagree Percent	N	Percent	N	Percent
Career advancement opportunities are available to me in the same way they are available to my colleagues	2	22.22%	6	66.67%	0	0.00%	1	11.11%	0	0.00%
If I were to choose a new practice setting today, I would choose this group	2	22.22%	2	22.22%	3	33.33%	1	11.11%	0	11.11%
I am likely to leave this group in the next twelve months	0	0.00%	3	33.33%	2	22.22%	1	11.11%	3	33.33%

*Descriptive Statistics: Is there a relationship between the physician practice model and primary care physician retention in a medical practice?* 

These responses regarding PCP retention are in line with the third dimension of the job embeddedness theory of sacrificed physical and psychological benefit that may be lost by leaving a job or organization (Mitchell et al., 2001). Participant responses indicated a majority PCPs (N= 8) believe they have equal career advancement opportunities as their peers. However, many were undecided and neither agreed nor disagreed that they would choose the same group that are practicing in today. However, PCPs were split (N=3 agree, N =3 strongly disagree) on the decision if they will leave their practice within the next 12 months.

*Research Question 2.* Is there a relationship between the primary care physician practice model and the income earned?

To determine if there is a relationship between the PCP practice model and income earned a descriptive analysis was performed. The results of this analysis are presented in Table 11.



r												
		Very	So	Somewhat		Neither	Somewhat			Very		
	Satisfied		Satisfied		Dissatisfied		Dissatisfied		Dissatisfied			
					nor Satisfied							
	Ν	Percent	Ν	Percent	Ν	Percent	Ν	Percent	Ν	Percent		
Total Earnings from your Practice	1	11.11%	4	44.44%	3	33.33%	1	11.11%	0	0.00%		
Executive compensation in your group	0	0.00%	3	33.33%	4	44.44%	2	22.22%	0	0.00%		
Amount of work required for the pay you receive	1	11.11%	4	44.44%	3	33.33%	1	11.11%	0	0.00%		

Descriptive Statistics: Is there a relationship between the primary care physician practice model and the income earned?

Primary care providers have a lower income compared to providers who choose a specialty practice (Fortney et al., 2013). Results from the survey indicated PCPs are somewhat satisfied (N=4) to neither dissatisfied nor satisfied (N=3) on the total earnings from their practice and the amount of work required for the pay they received. The participants indicated that they were neither dissatisfied nor satisfied (N=4) with the executive compensation in their practice when compared to their own compensation.

*Research Question 3.* Is there a relationship between the primary care physician practice model and physician satisfaction?

To determine if there is a relationship between the PCP practice model and income earned a descriptive analysis was performed. The results of this analysis are presented in Tables 12 and Table 13.



-		Very	Somewhat			Neither	S	omewhat	Very		
	S	atisfied	ŝ	Satisfied	Dis	satisfied nor Satisfied	D	issatisfied	Di	ssatisfied	
	Ν	Percent	Ν	Percent	Ν	Percent	Ν	Percent	Ν	Percent	
Quality of care you are able to provide.	4	44.44%	3	33.33%	0	0.00%	2	22.22%	0	0.00%	
Amount of time you are able to spend with each patient	2	22.22%	5	55.56	1	11.11%	1	11.11%	0	0.00%	
Your relationships with patients	5	55.56%	4	44.44%	0	0.00%	0	0.00%	0	0.00%	
Your patients' expectations/demands	0	0.00%	8	88.89%	0	0.00%	1	11.11%	0	0.00%	
Your patients' adherence/compliance with instructions	0	0.00%	6	66.67%	1	11.11%	1	11.11%	1	11.11%	
Continuity of patient care you are able to provide	5	55.56%	4	44.44%	0	0.00%	0	0.00%	0	0.00%	
Your access to computers	5	55.56%	3	33.33%	1	11.11%	0	0.00%	0	0.00%	
The availability of online services (email, internet, intranet)	4	44.44%	5	55.56%	0	0.00%	0	0.00%	0	0.00%	
Your overall Practice	2	22.22%	5	55.56%	1	11.11%	1	11.11%	0	0.00%	
The influence you have on your group's policies and procedures	1	11.11%	2	22.22%	2	22.22%	2	22.22%	2	22.22%	

Descriptive Statistics: Is there a relationship between the primary care physician practice model and physician satisfaction?

According to Coleman et al. (2015) physician satisfaction can be defined by physicians who are content with the work they perform, their type of practice, income earned, and work-life balance. Physician satisfaction with respect to the PCP practice indicates respondents of this survey are very satisfied with their relationships with patients, continuity of patient care they can provide, their ability to access computers and the availability of online services. Regarding patient expectations/demands and patient adherence and compliance with instructions, overall, PCPs (N=5) were satisfied. Primary care providers varied in response when it came to the influence they have on their group's policies and procedures.



	S	Strongly		Agree	Nei	ther Agree	D	isagree	St	rongly
		Agree			noi	r Disagree			Di	sagree
	Ν	Percent	N	Percent	N	Percent	Ν	Percent	Ν	Percent
Medical supplies are available when I need them.	1	11.11%	5	55.56%	1	11.11%	2	22.22%	0	0.00%
Non-provider staff in my practice support my professional judgement	2	22.22%	5	55.56%	1	11.11%	1	11.11%	0	0.00%
My non-provider colleagues are a major source of personal support	2	22.22%	5	55.56%	1	11.11%	1	11.11%	0	0.00%
I have sufficient exam room space to see my patients	6	66.67%	3	33.33%	0	0.00%	0	0.00%	0	0.00%
I have adequate equipment for office procedures	1	11.11%	6	66.67%	1	11.11%	1	11.11%	0	0.00%
Non-provider staff in my practice reliably carry out clinical instructions	2	22.22%	6	66.67%	1	11.11%	0	0.00%	0	0.00%
My values are consistent with those of my colleagues	3	33.33%	2	55.56%	1	11.11%	0	0.00%	0	0.00%
The medical group is supportive of providers who choose to work part-time	0	0.00%	5	55.56%	3	33.33%	1	11.11%	0	0.00%
There is an adversarial relationship between providers and administrators at our group	1	11.11%	2	22.22%	4	44.44%	1	11.11%	1	11.11%
My values conflict with the group's organizational values	1	11.11%	1	11.11%	1	11.11%	1	11.11%	5	55.56%
I am isolated from my colleagues because of ethnic, cultural, gender or sexual orientation differences	0	0.00%	0	0.00%	1	11.11%	0	0.00%	8	88.89%

# Descriptive Statistics: Is there a relationship between the primary care physician practice model and physician satisfaction?



When accessing their own practice, PCPs (N=6) were very satisfied with their exam room space to see patients. Primary care providers (N=5) were satisfied with the ability to get medical supplies and equipment. Most participants felt supported by nonprovider colleagues both personally and professionally. An overwhelming majority (N=8) have never felt isolated from their colleagues because of ethical, cultural, gender or sexual orientation and believe their personal values and organizational values are very similar. The one question related to physician satisfaction PCPs neither agree or disagreed (N=4) with was the belief that there is an adversarial relationship between providers and administrators in their group. This may be an area that requires additional research.

*Research Question 4.* Is there a relationship between the primary care physician practice model and the effect on work-life balance?

To determine if there is a relationship between the PCP practice model and the effect on work-life balance a descriptive analysis was performed. The results of this analysis are presented in Table 14 and Table 15.



	Neither										
		Very		Somewhat		Dissatisfied		Somewhat		Very	
		Satisfied		Satisfied		nor Satisfied		Dissatisfied		Dissatisfied	
	Ν	Percent	Ν	Percent	Ν	Percent	Ν	Percent	Ν	Percent	
Time you have available for your family and personal life	4	44.44%	1	11.11%	3	33.33%	1	11.11%	0	0.00%	
Degree of control you have over your schedule	2	22.22%	3	33.33%	3	33.33%	1	11.11%	0	0.00%	
The morale in your group	2	22.22%	1	11.11%	2	22.22%	4	44.44%	0	0.00%	
Amount of time you spend working	1	11.11%	5	55.55%	0	0.00%	3	33.33%	0	0.00%	

Descriptive Statistics: Is there a relationship between the primary care physician practice model and the effect on work-life balance

A good work-life balance includes a work schedule that provides adequate time for family, hobbies, and lifestyle outside of work (Starmer et al., 2016). Primary care providers answering this survey were very satisfied (N=4) or neither satisfied nor satisfied (N=3) with the time they have available for family or personal life. The majority were somewhat satisfied (N=5) to somewhat dissatisfied (N=3) with the amount of time they spend working. Regarding the degree of control providers have over their schedule, PCPs (N=3) were somewhat satisfied to neither dissatisfied nor satisfied. However, a majority (N=4) where dissatisfied with the moral in their group.



-	S	Strongly agree		Agree		er Agree Disagree	Di	sagree	Strongly Disagree		
-	N	Percent	N	Percent	Ν	Percent	Ν	Percent	Ν	Percent	
My role in managing the business aspects of my practice is not a burden to me	1	11.11%	5	55.55%	2	22.22%	1	11.11%	0	0.00%	
My colleagues support my efforts to balance family and work responsibilities	3	33.33%	4	44.44%	2	22.22%	0	0.00%	0	0.00%	

Descriptive Statistics: Is there a relationship between the primary care physician practice model and the effect on work-life balance

When accessing their own practice 56% of PCPs (N=5) agree managing the business aspects of their practice was not a burden to me. Primary care providers Agree (N=4) to strongly agree (N=3) that their colleagues support their efforts to balance family and work responsibilities. This may be a benefit that contributes to physician retention which requires further research.

*Research Question 5.* Is there a relationship between the primary care physician practice model and administrative responsibilities?

To determine if there is a relationship between the PCP practice model and administrative responsibilities a descriptive analysis was performed. The results of this analysis are presented in Table 16 and Table 17.



						Neither Dissatisfied				
		Very		Somewhat		nor		Somewhat		Very
	N	Satisfied Percent	N	Satisfied Percent	N	Satisfied Percent	N	Dissatisfied Percent	N	Dissatisfied Percent
Vour chility to	2	22 220/	4	44 440/	1	11 110/	0	0.000/	1	11 110/
obtain specialty referrals	3	55.55%	4	44.44%	1	11.11%	0	0.00%	1	11.11%
The responsiveness of your information systems department	2	22.22%	4	44.44%	1	11.11%	2	22.22%	0	0.00%
Appropriateness of pre- authorization decisions	0	0.00%	1	11.11%	2	22.22%	3	33.33%	3	33.33%
Time it takes to obtain pre- authorization decisions	0	0.00%	3	33.33%	0	0.00	1	11.11%	5	55.56%
Your ability to obtain tests or procedures for patients whenever you feel they are necessary	3	33.33%	2	22.22%	0	0.00%	4	44.44%	0	0.00%
Your ability to prescribe the medications you want	1	11.11%	3	33.33%	1	11.11%	4	44.44%	0	0.00%
The Physician leadership in your specialty or department	3	33.33%	1	11.11%	4	44.44%	1	11.11%	0	0.00%
Your group's response to your concerns and requests	1	11.11%	3	33.33%	3	33.33%	0	0.00%	2	22.22%
Explanation of management decisions	3	33.33%	1	11.11%	2	22.22%	2	22.22%	1	11.11%
Quality of Administrative leadership in your group	1	11.11%	2	22.22%	1	11.11%	5	55.56%		0.00%

# Descriptive Statistics: Is there a relationship between the primary care physician practice model and administrative responsibilities?



Rao et al. (2017) describe administrative responsibilities as tasks and duties that are non-clinical including paperwork and documentation of services. Primary care providers were very satisfied to somewhat satisfied with their ability to obtain specialty referrals for patients. Likewise, 44.44% of PCPs (N=4) were somewhat satisfied with the responsiveness of their information systems department. Providers (N=5) were very dissatisfied with the amount of time it takes to obtain pre-authorization decisions. They were also somewhat dissatisfied (N=4) with their ability to obtain tests or procedures for patients whenever they feel necessary, their ability to prescribe the medications they want (N=4), and the quality of administrative leadership in your group (N=5). There were variable answers from strongly agree to strongly disagree on perspective of the Physician leadership in their specialty or department and their group's response to your concerns and requests.

Table 17

		Strongly Agree		Agree		Neither Agree nor Disagree		Disagree		Strongly Disagree
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
Paperwork required by payers is a burden to me	6	66.67%	1	11.11%	1	11.11%	1	11.11%	0	0.00%
I have too much administrative work to do	2	22.22%	3	33.33%	1	11.11%	3	33.33%	0	0.00
There are not enough support staff in my practice	1	11.11%	0	0.00%	4	44.44%	4	44.44%	0	0.00%
Non-provider staff in my practice are not accommodating	0	0.00%	1	11.11%	1	11.11%	5	55.56%	2	22.22%

Descriptive Statistics: Is there a relationship between the primary care physician practice model and administrative responsibilities?



When accessing their own practice 66.67% of PCPs (N=6) believe paperwork by payers is a burden to them. Many respondents either agreed (N=3) or disagree (N=3) they have too much administrative work, while 22% strongly agree (N=2) they have too much administrative work. Over 44% of participants (N=4) disagree or (N=4) neither agree nor disagree they are not enough support staff in their practice. Overwhelmingly, PCPs (N=5) believe their non-provider support staff in their practice are accommodating.

#### **Summary of Results**

This exploratory study used the AMGA PSS to analyze data for the main research question: Is there a relationship between the benefits (quality of life, income, and workhome balance) of the practice model and the retention of PCPs? Due to extremely low response rate, the results are not representative of the entire population of PCPs. Additionally, this low response rate made it impossible to perform any inferential analyses on the data. Therefore, the null hypotheses were neither rejected nor accepted.

It has been stated that the need for PCPs will continue to increase and it is predicted that by the year 2025 there will be a shortage of more than 40,000 PCPs (Petterson, et al., 2015). This exploratory study indicated PCPs have no intention to leave their practice in the next 12 months which is good news for healthcare administrators. Using the theory of job embeddedness to explain why a PCP chooses a specific practice model and which benefits contribute to physician retention, administrators must also address issues identified by PCPs (Mitchell et al., 2001).

Participants in this exploratory study were concerned with an adversarial relationship between providers and administrators in their group as well as the morale of their group. The fit an individual has within their organization is a significant factor of



organizational commitment, job satisfaction, and turnover intent (Peng, 2018). Other concerns were the amount of administrative responsibilities. As with other studies (Dunham et al., 2013; Masini, 2014), the results of this exploratory study also indicated physicians are dissatisfied with burden of administrative tasks

Studies have estimated that in a traditional model of primary care, physicians spend 20% to 33% of their time each day performing functions related to patient care outside of an office visit (Dunham et al., 2013). Many of these functions included the amount of time it takes to obtain pre-authorization decisions, their ability to obtain tests or procedures for patients whenever they feel necessary, and their ability to prescribe the medications they want.

The findings of the exploratory study addressed the main research question only from a descriptive perspective as shown in Table 18. All participants in this exploratory study identified that they practice in a traditional model of medicine. When asked if they were to choose a model of practice long term, 66.67% (N=6) indicated they would stay in a traditional model of medicine and 33.33% (N=3) of PCPs indicate they would practice in a concierge model of medicine.

#### Table 18

Descriptive Statistics:	Choice of	f Long-Term N	Iedica	l Practice	e Mode	el
-------------------------	-----------	---------------	--------	------------	--------	----

	Frequency	Percent
Traditional	6	66.67%
Concierge	3	33.33%
Total	9	100.00%



#### Recommendations

The descriptive findings from this exploratory study indicated that PCPs if they had a choice would not switch to a different practice model of care. It is recommended that health care administrators identify ways to retain PCPs as well as consider if different models of care may assist in PCP retention (Petterson et al., 2015; Verdon 2016). Due to a low response rate this exploratory study cannot provide a generalization for the entire population. Further research is needed to draw inferential analyses to investigate whether there is a presence, absence, or direction of a relationship between physician benefits (income, satisfaction, work-life balance), retention and the model of practice (traditional, concierge, or hybrid) chosen by PCPs.

#### Summary

This was an exploratory quantitative study of seeking to identifying the benefits of the practice model (income, physician satisfaction, work-life balance) and physician retention. The AMGA PSS to analyze data for the main research question: Is there a relationship between the benefits (income, satisfaction, work-life balance) and administrative responsibilities of the practice model and the retention of PCPs?

The survey was conducting using SurveyMonkey. The survey link was sent by an email through Redi-Data, a licensee of the AMA that maintains the PPD. Data were collected over a 5-month period.

Due to low response rates the survey used only descriptive analysis; this analysis included questions related to income, satisfaction, work-life balance, administrative responsibilities, physician retention and the choice of choosing a practice model long term. When asked if they were to choose a model of practice long term, 66.67%



indicated they would stay in a traditional model of medicine and 33.33% of PCPs indicate they would practice in a concierge model of medicine. Further research is needed to draw inferential analysis more conclusive to the primary care provider population.



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## Appendix A

American Medical Group Association (AMGA) Survey



# AMGA PROVIDER SATISFACTION SURVEY

The following questions refer to your **medical practice in general**, including care for all of your patients. This includes questions that refer to the 'group'. You should interpret this word to refer to the medical group or clinic to which you belong, rather than a particular office, site, or department. With respect to your medical practice, how satisfied or dissatisfied are you with each of the following? (Check ONE oval per question.)

	Very Discotiation	Somewhat Discotiation	Neither Dissatisfied	Somewhat	Very
Quality of care you are					
Time you have available for your family and personal life	0	0	0	0	0
Total earnings from your practice	0	0	0	0	0
Amount of time you are able to spend with each patient	0	0	0	0	0
Degree of control you have over your schedule	0	0	0	0	0
Amount of time you spend working	0	0	0	0	0
Your ability to obtain specialty referrals whenever you feel they are necessary	0	0	0	0	0
Time it takes to complete pre- authorization requests	0	0	0	0	0
Your relationships with patients	0	0	0	0	0
Your patients' expectations/demands	0	0	0	0	0
Your patients' adherence/compliance with instructions	0	0	0	0	0
Continuity of patient care you are able to provide	0	0	0	0	0
Your ability to refer patients to high quality specialists	0	0	0	0	0
Quality of physician leadership in your group	0	0	0	0	0
Physician involvement in management and	0	0	0	0	0


# governance of your group

	Very	Somewhat	Neither Dissatisfied	Somewhat	Very
- III (	Dissatisfied	Dissatisfied	Nor Satisfied	Satisfied	Satisfied
Quality of administrative leadership in your group	0	0	0	0	0
Communications with physician leaders	0	0	0	0	0
Communications with administrators	0	0	0	0	0
Explanation of management decisions	0	0	0	0	0
The morale in your group	0	0	0	0	0
The influence you have on your group's policies and procedures	0	0	0	0	0
Your group's response to your concerns and requests	0	0	0	0	0
How well your group is facing the economic and strategic challenges confronting providers in this country	0	0	0	0	0
Executive compensation in your group	0	0	0	0	0
The physician leadership in your specialty or department	0	0	0	0	0
Your ability to prescribe the medications you want	0	0	0	0	0
Your ability to obtain tests or procedures for patients whenever you feel they are necessary	0	0	0	0	0
Number of services for which you are required to submit pre- authorization requests	0	0	0	0	0



Time it takes to obtain pre-authorization decisions	0	0	0	0	0
Appropriateness of pre-authorization decisions	0	0	0	0	0
Your access to computers	0	0	0	0	0
The availability of on- line services (e-mail, Internet, Intranet)	0	0	0	0	0
The responsiveness of your information systems department	0	0	0	0	0

	Very Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied Nor Satisfied	Somewhat Satisfied	Very Satisfied
Amount of work required for the pay you receive	0	0	0	0	0
Your overall medical practice	0	0	0	0	0

The statements below describe the experiences reported to us by providers in various settings and specialties. Please assess how well each statement describes your own practice situation. Check the oval which best describes how much you agree or disagree with each statement.

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Medical supplies are available when I need them	0	0	0	0	0
Non-provider staff in my practice support my professional judgement.	0	0	0	0	0
My non-provider colleagues are a major source of personal support.	0	0	0	0	0
I have sufficient exam room space to see my patients	0	0	0	0	0
My role in managing the business aspects of my practice is not a burden to me	0	0	0	0	0
I have adequate equipment for office procedures	0	0	0	0	0
Paperwork required by payers is a burden to me	0	0	0	0	0
I have too much administrative work to do	0	0	0	0	0
There are not enough support staff in my practice	0	0	0	0	0



Non-provider staff in my practice are not accommodating	0	0	0	0	0
Non-provider staff in my practice reliably carry out clinical instructions	0	0	0	0	0
The volume of my patient load or panel size is reasonable	0	0	0	0	0
My values are consistent with those of my colleagues	0	0	0	0	0
I am isolated from my colleagues because of ethnic, cultural, gender or sexual orientation differences	0	0	0	0	0
Career advancement opportunities are available to me in the same way they are available to my colleagues	0	0	0	0	0
My colleagues support my efforts to balance family and work responsibilities	0	0	0	0	0

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
My values conflict with the group's organizational values	0	0	0	0	0
Administrators emphasize productivity to the detriment of quality care	0	0	0	0	0
There is an adversarial relationship between providers and administrators at our group	0	0	0	0	0
My specialty is treated equitably in terms of compensation, resources, and scheduling	0	0	0	0	0
The medical group is supportive of providers who choose to work part- time	0	0	0	0	0
If I were to choose a new practice setting today, I would choose this group	0	0	0	0	0
I am likely to leave this group in the next twelve months	0	0	0	0	0

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't Use
My use of clinical guidelines (care pathways) improves the quality of care I am able to provide	0	0	0	0	0	0
Using an electronic medical record has improved my practice	0	0	0	0	0	0



Are you using email to communicate with patients? Check all that apply:



Approximately what percentage of these OUTPATIENT VISITS are with patients for whom you (or your group) receive CAPITATED payments? (For example, enter 50% as 50) \_\_\_\_\_

What is your age? (Enter whole numbers only; if you are 45 years and 2 months, enter 45)

What is your gender?



If you work part time, what is your percent of Full Time Equivalence? (For example, enter 50% as 50)

How many years have you been in practice at this clinic? (Round to the nearest year)

If you have any comments you wish to convey about your organization or about the survey, whether general or specific to individual questions, please use the space below. Thank you for completing this survey. Please return to AMGA, 1 Prince Street, Alexandria, VA 22314.



# Appendix B

Permission to use AMGA Survey



**Research Permission Requested** 

Angela Claytor <u>aclaytor@atsu.edu</u> Jul 20

Mark Miller <mmiller@amga.org>

Dear Mr. Miller,

I am a student at A. T. Still University. In partial fulfillment of the requirement for Doctor of Healthcare Administration, research must be conducted. I am writing to request permission to use the AMGA physician satisfaction survey to send a survey to primary care physicians. Permission and access to the file is needed for IRB approval and the anonymity of each respondent will be ensured. I am sending the survey electronically to Primary care physicians in the Midwest states of Iowa, North Dakota, South Dakota, and Illinois. My study will look at the benefits and retention of physicians in the traditional medicine practice model and concierge physicians.

I look forward to hearing from you. If you have any questions that I may answer for you, please do not hesitate to contact me.

Sincerely,

Angela Claytor

Doctor of Healthcare Administration Candidate

A.T. Still University



Mark Miller <mmiller@amga.org> Jul 20

to me

Hello Angela. We consider the survey to be in the 'open domain', so feel free to make use of it. You won't have access to any of the data in our database; just want to be clear about that.

I assume you have a current copy of the survey?

Mark Miller, MS

Director, Survey Studies and Research

703.838.0033 ext. 363

mmiller@amga.org

One Prince Street

Alexandria, VA 22314 amga.org



## Appendix C

American Medical Group Association (AMGA) Survey Including Demographic

Questions



### American Medical Group Association (AMGA) Survey Including Demographic

#### Questions

Demographic Questions:

How many years have you been a practicing primary care physician? (Round to the nearest year) If less than one end Survey thank participants for their time

Indicate your type of primary care medicine; General Medicine, Internal Medicine, Family Medicine

Are you in a group or a solo practice?

Practice type: (Traditional, Concierge, Hybrid, Other) If other end Survey thank participants for their time

State Practice is Located (Iowa, North Dakota, South Dakota, Other) If other end Survey thank participants for their time

How many patients (including new and established) do you see in a typical week of practice?

What is your age?

What is your gender? (Male or Female)

Do you practice full time or part time? (full time, part time)

If you work part time, what is your percent of Full Time Equivalence



# AMGA PROVIDER SATISFACTION SURVEY

The following questions refer to your **medical practice in general**, including care for all of your patients. This includes questions that refer to the 'group'. You should interpret this word to refer to the medical group or clinic to which you belong, rather than a particular office, site, or department. With respect to your medical practice, how satisfied or dissatisfied are you with each of the following? (Check ONE oval per question.)

	Very	Somewhat	Neither Dissatisfied	Somewhat	Very
	Dissatisfied	Dissatisfied	Nor Satisfied	Satisfied	Satisfied
Quality of care you are able to provide	0	0	0	0	0
Time you have available for your family and personal life	0	0	0	0	0
Total earnings from your practice	$\circ$	0	0	0	0
Amount of time you are able to spend with each patient	0	0	0	0	0
Degree of control you have over your schedule	0	0	0	0	0
Amount of time you spend working	0	0	0	0	0
Your ability to obtain specialty referrals whenever you feel they are necessary	0	0	0	0	0
Time it takes to complete pre- authorization requests	0	0	0	0	0
Your relationships with patients	0	0	0	0	0
Your patients' expectations/demands	0	0	0	0	0
Your patients' adherence/compliance with instructions	0	0	0	0	0
Continuity of patient care you are able to provide	0	0	0	0	0
Your ability to refer patients to high quality specialists	0	0	0	0	0
Quality of physician leadership in your group	0	0	0	0	0



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Physician involvement					
in management and governance of your	0	0	0	0	0
group					

	Very Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied Nor Satisfied	Somewhat Satisfied	Very Satisfied
Quality of administrative leadership in your group	0	0	0	0	0
Communications with physician leaders	0	0	0	0	0
Communications with administrators	0	0	0	0	0
Explanation of management decisions	0	0	0	0	0
The morale in your group	0	0	0	0	0
The influence you have on your group's policies and procedures	0	0	0	0	0
Your group's response to your concerns and requests	0	0	0	0	0
How well your group is facing the economic and strategic challenges confronting providers in this country	0	0	0	0	0
Executive compensation in your group	0	0	0	0	0
The physician leadership in your specialty or department	0	0	0	0	0
Your ability to prescribe the medications you want	0	0	0	0	0
Your ability to obtain tests or procedures for patients whenever you feel they are necessary	0	0	0	0	0
Number of services for which you are required	0	0	0	0	0



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to submit pre- authorization requests					
Time it takes to obtain pre-authorization decisions	0	0	0	0	0
Appropriateness of pre-authorization decisions	0	0	0	0	0
Your access to computers	0	0	0	0	0
The availability of on- line services (e-mail, Internet, Intranet)	0	0	0	0	0
The responsiveness of your information systems department	0	0	0	0	0
	Very Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied Nor Satisfied	Somewhat Satisfied	Very Satisfied
Amount of work			0		

Amount of work required for the pay you receive	0	0	0	0	0
Your overall medical practice	0	0	0	0	0

The statements below describe the experiences reported to us by providers in various settings and specialties. Please assess how well each statement describes your own practice situation. Check the oval which best describes how much you agree or disagree with each statement.

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Medical supplies are available when I need them	0	0	0	0	0
Non-provider staff in my practice support my professional judgement.	0	0	0	0	0
My non-provider colleagues are a major source of personal support.	0	0	0	0	0
I have sufficient exam room space to see my patients	0	0	0	0	0
My role in managing the business aspects of my practice is not a burden to me	0	0	0	0	0
I have adequate equipment for office procedures	0	0	0	0	0
Paperwork required by payers is a burden to me	0	0	0	0	0
I have too much administrative work to do	0	0	0	0	0



There are not enough support staff in my practice	0	0	0	0	0
Non-provider staff in my practice are not accommodating	0	0	0	0	0
Non-provider staff in my practice reliably carry out clinical instructions	0	0	0	0	0
The volume of my patient load or panel size is reasonable	0	0	0	0	0
My values are consistent with those of my colleagues	0	0	0	0	0
I am isolated from my colleagues because of ethnic, cultural, gender or sexual orientation differences	0	0	0	0	0
Career advancement opportunities are available to me in the same way they are available to my colleagues	0	0	0	0	0
My colleagues support my efforts to balance family and work responsibilities	0	0	0	0	0

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
My values conflict with the group's organizational values	0	0	0	0	0
Administrators emphasize productivity to the detriment of quality care	0	0	0	0	0
There is an adversarial relationship between providers and administrators at our group	0	0	0	0	0
My specialty is treated equitably in terms of compensation, resources, and scheduling	0	0	0	0	0
The medical group is supportive of providers who choose to work part- time	0	0	0	0	0
If I were to choose a new practice setting today, I would choose this group	0	0	0	0	0
I am likely to leave this group in the next twelve months	0	0	0	0	0



	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't Use
My use of clinical guidelines (care pathways) improves the quality of care I am able to provide	0	0	0	0	0	0
Using an electronic medical record has improved my practice	0	0	0	0	0	0

Are you using email to communicate with patients? Check all that apply:

- To send appointment reminders
  To send preventive care reminders
  As part of a disease management program
  To answer questions about the patient's health/provide medical advice
  To send test results
  Do not correspond with patients via email
  I use email to correspond with patients for OTHER reasons
  Are you using an "open access" appointment scheduling model?
  Yes, first generation open access (some appointment slots for today are reserved for patients who call in and must be seen today)
  Yes, advanced open access (all patients can be seen on whatever date they wish, whether today or in the future)
- $\bigcirc$

Considering implementing

No plans to implement at this time



# Appendix D

Introductory Email



### **Introductory Email**

To: (e-mail addresses) From: aclaytor@atsu.edu Subject: Physician Perspective on Retention in Primary Care

Dear Doctor,

My name is Angela Claytor and I am a dissertation student at A. T. Still University. The purpose of my study is to investigate the relationship between physician benefits (income, satisfaction, work-life balance), retention and the model of practice chosen (traditional, concierge, or hybrid) from the perspective of primary care physicians. This survey is part of my research study and is in partial fulfillment of Doctoral Studies in Healthcare Administration. The survey should take approximately 10-15 minutes to complete. The survey will be evaluated in totality of all respondents as well as a comparative analysis between the models of practice.

The survey is completely anonymous. This information will assist in understanding the benefits associated with a provider's choice to practice in a primary care setting, the benefits a PCP seeks when choosing a medical practice model, and may provide insight into physician retention.

If you are willing to participate in this study, please click on the link below which will take you to SurveyMonkey. The survey link will arrive by an email through Redi-Data a licensee of the American Medical Association (AMA) that maintains the Physician Professional Database.

By completing the survey, you agree to participate in the above-described study. Should you require any further information, please contact me, Angela Claytor, by e-mail aclaytor@atsu.edu or 515-480-9279. You may also contact my Chair, Dr. Susan Miedzianowski by email at <u>smiedzianowski@atsu.edu</u> or 586-321-1182 or the IRB Chairman, Dr. Robert J. Theobald, e-mail rtheobald@atsu.edu or (660) 626-2320.

Please consider completing the survey. Your responses are appreciated. The survey link will remain available to you for 4 weeks.

Sincerely, Angela Claytor Doctoral Candidate, Healthcare Administration A. T. Still University



# Appendix E

Informed Consent for Participating in Research Activities



#### INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES Study Title: Investigating Practice Model Choice and Retention of Primary Care Physicians

### **College of Graduate Health Studies**

Researcher: Angela Claytor

Email Address and Telephone Number: Angela Claytor, aclaytor@atsu.edu or 515-480-9279.

Dissertation Chair: Dr. Susan Miedzianowski

Email Address: smiedzianowski@atsu.edu

1. You agree to participate in a research study at this institution. The title of the research is

Investigating Practice Model Choice and Retention of Primary Care Physicians. The researcher is a doctoral learner at A.T. Still University. The information in this form is provided to help you decide if you want to participate. The form describes what you will have to do during the study and the risks and benefits of the study. If you have any questions about or do not understand something in this form, you should ask the researcher. Do not participate in the study unless the researcher has answered your questions and you decide that you want to be part of this study.

2. "You understand that the purpose of the research is to . . . ."

The researcher wants to find out whether there is a presence, absence, and the direction of a relationship between physician benefits (income, satisfaction, work-life balance), retention and the model (traditional, concierge, or hybrid) of practice chosen by primary care physicians.

3. "Your participation will involve . . . "

If you decide to be in this study, your participation will last about 10 - 15 minutes. The time will depend on the length of time it takes to answer all of the survey questions. If you decide to be in this study you will do the following things:

- i. Give a small amount of information about yourself, such as your age, gender, occupation, and education level.
- ii. Complete a survey with several sections to investigate various benefits and preferences as to how you prefer to practice, and how practice management procedures affect your ability to provide care.
- iii. While you are in the study, please follow the instructions for each section of the survey.
- iv. You will need to complete the survey in one sitting. Once you close the survey, you are not able to return.



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- 4. "You understand that no study is completely risk free. However, we do not expect that you will be harmed or distressed during this study. You may stop being in the study at any time if you become uncomfortable. You should be aware, however, that there is a small possibility that responses could be viewed by unauthorized parties (such as computer hackers because your responses are being entered and stored on a web server).
- 5. Any information you provide in this study will be kept confidential. In any written reports or publications, no information will be able to identify you. The web service will not retain your IP address; therefore no connection can be made back to the computer or the individual used to complete the survey. The investigator will use Redi-Data a licensee of the American Medical Association (AMA) that maintains the Physician Professional Database (PPD) for mailing purposes. To protect your confidentiality, Redi-Data does not supply a list of emails to the investigator; however, they will send the email to participants on behalf of the investigator.
  - i. Data will be collected and downloaded from Survey Monkey to a secure protected USB drive retained in the possession of the investigator. Data will be retained for three years after the completion of the study at which time it will be destroyed. The researcher and research supervisor will be able to review this information.
  - ii. "You also understand that your participation is voluntary and that refusal to participate will involve no penalty to you or loss of benefits to which you are otherwise entitled. You also understand that you may withdraw from the research study at any time without penalty or prejudice."
  - iii. "You understand that there is no momentary incentive for being in the study."
- 6. "Any questions that you may have concerning your participation in the research study will be answered by Angela Claytor, who can be reached by e-mail aclaytor@atsu.edu or phone at 515-480-9279. You may also contact my Chair, Dr. Susan Miedzianowski by email at smiedzianowski@atsu.edu or by phone at 586-321-1182 or the IRB Chairman, Dr. Robert J. Theobald, e-mail rtheobald@atsu.edu or (660) 626-2320.
- 7. "If you have any questions about your rights as a research subject or in the event you believe that you have suffered any injury as a result of participation in this research project, you may contact, Robert Theobald, Ph.D., the Chairman of



KCOM Institutional Review Board (660-626-2316), who will discuss your questions or will be able to refer you to the individual who will review the matter with you, identify other resources that may be available, and provide further information as to how to proceed."

8. "I have read the above statement and have been able to ask questions and express concerns, which have been satisfactorily responded to by the investigator. I believe I understand the purpose of the study as well as the potential benefits and risks that are involved. I hereby give my informed and free consent to be a participant in this study."

\*\* Explanation – This consent will be uploaded to SurveyMonkey. The participant will be instructed in the email that after reading the consent, if they are willing to proceed to click on the NEXT button which will serve as their signature and open the survey to them.

- 9. "I certify that I have explained to the above individual the nature and purpose, the potential benefits and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature."
- 10. "These elements of Informed Consent conform to the assurance given by CGHS to the DHHS to protect the rights of human subjects."
- 11. "I have provided the subject/patient a copy of this signed consent document."

Date Signature of Investigator (Each consent form must be signed by the investigator at the time consent is obtained.)



Appendix F

**IRB** Approval



# A.T. STILL UNIVERSITY ATSU

Department of Pharmacology Tel: 660-626-2320 Fax: 660-626-2728

June 18, 2019

Angela Claytor 1303 12<sup>th</sup> Street Des Moines, IA 50314

Dear Ms. Claytor:

This letter is to inform you that the IRB has reviewed your application, dated 06/04/2019, for your project entitled, "Investigating Practice Model Choice and Retention of Primary Care Physicians", and found that the project is in the exempt category under Section 45CFR46.104 (d)(2)(i). Therefore, there is no need for further action unless there is a change in your protocol.

If you have any questions concerning this matter, or if there are any changes in your protocol, you must notify the IRB immediately. Good luck with your research project.

Sincerely Robert J. Theobald, Jr., Ph.D.

Chairperson, IRB

RJT

