

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF HEALTH POLICY AND ADMINISTRATION

RETAIL HEALTH CLINICS: A SYSTEMATIC LITERATURE REVIEW

SAMANTHA DIMEO
FALL 2016

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Health Policy and Administration
with honors in Health Policy and Administration

Reviewed and approved* by the following:

Catherine Baumgardner, PhD
Senior Instructor and Teaching Assistant Professor of Health Policy and Administration
Thesis Supervisor

Dr. Rhonda BeLue, PhD
Professor of Health Policy and Administration
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

ABSTRACT

Retail health clinics offer a scope of services pertaining to minor acute conditions and preventive screenings. This emerging phenomenon advertises quick, convenient, and affordable care; therefore, the retail clinic industry has prompted interest among stakeholders in the healthcare industry. This study presents a framework for understanding the retail health clinic industry, the model of care delivery, and existing retail clinic challenges. A systematic literature review was conducted using the online databases *ProQuest* and *PubMed*. Articles (n = 35) were retrieved that examined varying facets of the retail health clinic industry. According to the literature, retail health clinics tend to be located in more affluent and urban areas, and convenience and proximity have been identified as leading predictors of clinic use. The literature also revealed that the cost for care at retail clinics is lower compared to alternative care settings. Retail health clinics have received relatively high consumer satisfaction scores, and the quality of care in retail health clinics is comparable to alternative care settings. However, retail clinic operators continue to experience challenges, such as patient volume and profitability. Findings from the literature review indicate that, despite the lower costs for care offered at retail clinics, access to care may not necessarily be increased for underserved and rural populations. Rather, retail health clinics are increasing convenience to the insured and urban populations. The study findings identify the importance of understanding the retail clinic industry and its potential to increase access to care at lower costs, without compromising quality.

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ACKNOWLEDGEMENTS

There are several individuals who have been instrumental in the completion of this thesis. First and foremost, I would like to thank my thesis supervisor, Dr. Catherine Baumgardner, for guiding me through the thesis process. It has been an honor to work with Dr. Baumgardner on this research, and I could not have asked for a better mentor. Dr. Baumgardner has been a key resource as I conducted this study, answering all of my questions and teaching me how to conduct proper research. I also want to thank Dr. Deirdre McCaughey (The University of Alabama at Birmingham) for leading me to the topic of retail health clinics and for being a second mentor through my thesis process. Additionally, I want to thank Dr. Rhonda BeLue for serving as my honors adviser. I appreciate Dr. BeLue's guidance through the honors program and my thesis. Dr. BeLue has been influential throughout my academic career in the honors program, and she made sure that I took the necessary courses to prepare for my thesis. I would also like to thank my family for encouraging me throughout this thesis process. Finally, I am very appreciative of the opportunity to be a Schreyer scholar and want to thank both the Penn State Schreyer Honors College and Department of Health Policy and Administration.

Chapter 1

Introduction

The burgeoning number of retail health clinics has garnered considerable interest among stakeholders in the healthcare industry. These clinics are located in drugstores, grocery stores, and/or retail chains, ultimately promulgating convenience as an essential component of their business structure (Mehrotra & Lave, 2012; Rudavsky & Mehrotra, 2010). However, the retail clinic industry has been subject to contention, and the nation's pervasive focus on healthcare concerning cost, quality, and access contributes to the dispute regarding retail health clinics as a viable source to receive care (Mehrotra, Wang, Lave, Adams, & McGlynn, 2008).

The retail clinic industry first emerged in Minneapolis-Saint Paul in 2000 (Thygeson, Van Vorst, Maciosek, & Solberg, 2008). According to Kaissi and Zucker (2010), the leading factors concomitant to the expansion of the clinic industry include: (1) emergency department overcrowding, (2) access barriers, (3) patient demands in convenient and affordable care, and (4) primary care physician (PCP) shortages. The common features of retail clinics include transparent pricing, protocol-based treatment, extended hours/days of operation, and defined acute services. Retail clinics are typically located within, or near, a pharmacy, and they advertise quick care without the need to schedule an appointment (Williams, Khanfar, Harrington, & Loudon, 2011).

To date, a low percentage of healthcare consumers are taking advantage of these services. For example, only 19 percent of the total healthcare users in 2011 received clinic care in a retail clinic (Kaissi, Charland, & Chandio, 2013). Several researchers contribute the low percentage of

retail clinic users to limited clinic marketing. According to Hunter, Weber, Morreale, and Wall (2009), 62 percent of their survey respondents discovered retail clinics from a store sign or friend. Other factors contributing to low consumer use are poor clinic quality perceptions and location.

According to Williams et al. (2011), medical associations have disclosed several concerns regarding retail clinic care. The American Academy of Pediatricians (AAP), the American Academy of Family Physicians (AAFP), and the American Medical Association (AMA) are among these associations, and Leiker (as cited in Williams et al., 2011) acknowledges a lack of continuity of care and missed diagnoses as a few preeminent concerns addressed by these groups.

The purpose of this systematic literature review is to synthesize the literature and present a framework for understanding the retail clinic industry to determine the effect of retail health clinics on access, cost, and quality of care, and address the following question: *Are retail clinics a viable and sustainable model of care?* Due to the novelty of the retail clinic industry, a lack of published literature and empirical evidence exists regarding the retail clinic model (Rudavsky & Mehrotra, 2010; Weinick, Burns, & Mehrotra, 2010). Thus, this systematic literature review explores the limited set of existing studies pertaining to retail health clinics, and identifies the gaps in the literature. The ensuing literature review will examine 35 articles with respect to the retail clinic model.

Chapter 2

Literature Review Methodology

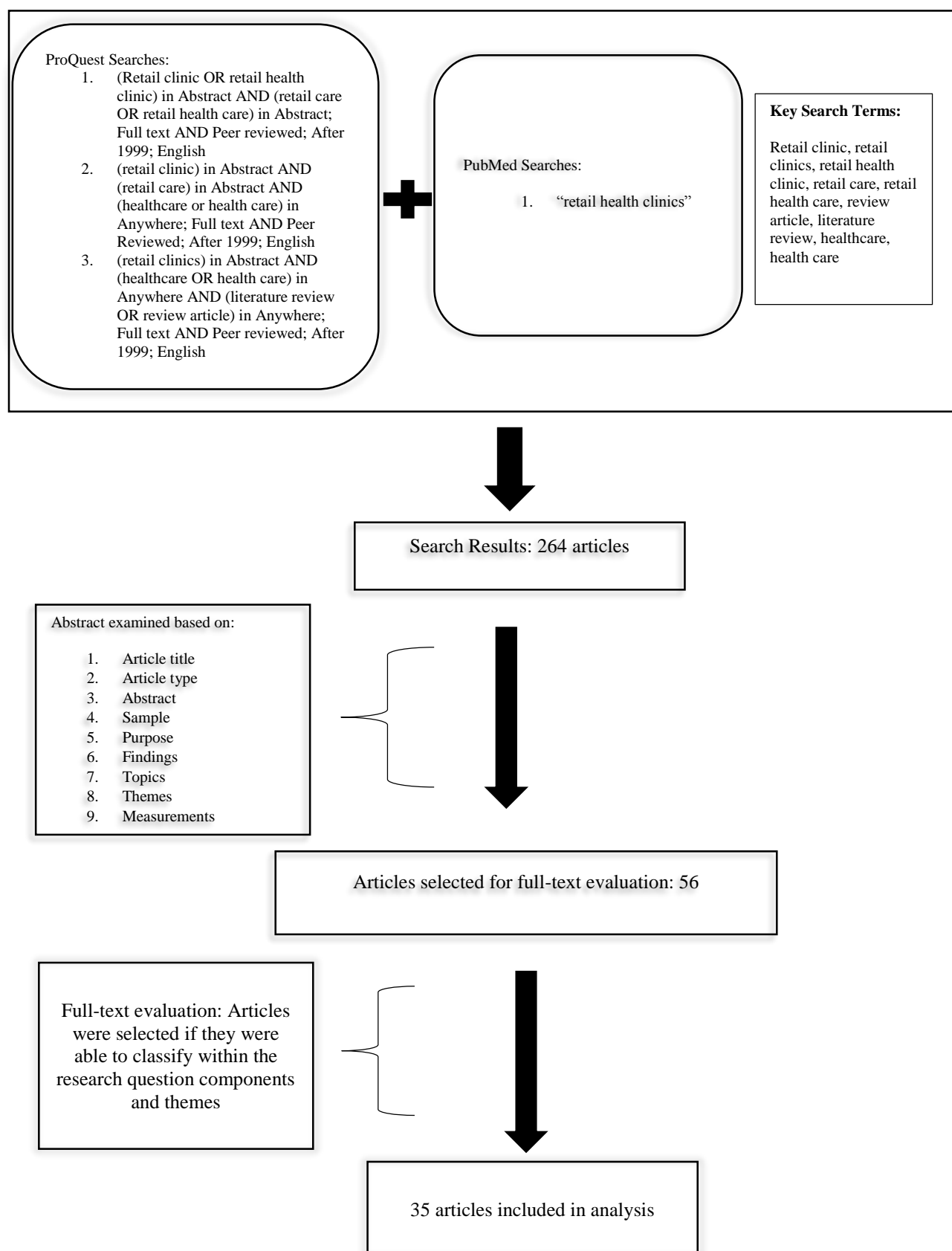
The systematic literature search used the online databases *ProQuest* and *PubMed* to detect retail clinic articles published after the year 1999. These databases were selected based on their inclusive compilation of academic journals pertaining to healthcare, management, and retail health clinics. Retail clinics are a relatively new sector in the healthcare industry; therefore, the chosen time span ensured that the literature was both current and comprehensive. The searches were conducted between May 2015 and August 2015, and the literature collected include quantitative studies, qualitative studies, industry summaries, and literature reviews.

Searches using *ProQuest* involved a two-dimensional structure containing “AND” and “OR” aggregations. A combination of the following key terms were included in these *ProQuest* searches: *retail clinic*, *retail clinics*, *retail health clinic*, *retail care*, *retail health care*, *review article*, *literature review*, *healthcare*, and *health care*. *PubMed* searches were conducted using the search term *retail health clinics*. These search conjunctions procured approximately 5,000 articles, leading to the need for refined searches based on specified inclusion criteria. The specified inclusion criteria included full text, peer reviewed, published after 1999, scholarly or credible source, healthcare industry focus, retail clinic focus, and English language. The number of *ProQuest* and *PubMed* results reduced the database to a total of 264 potentially applicable articles. Each article was then examined based on the article title, type, abstract, sample, purpose, findings, topics, themes, and measurements. Additionally, articles were selected for further review based on their relevance to the retail health clinic industry, classification as a peer-

reviewed scholarly source, and publication date. Articles were included if they mentioned *retail clinic(s)*, *retail health clinic*, *retail medicine*, *retail*, and/or *convenient care clinics* in the title and had abstracts that addressed retail health clinics with respect to the following themes: model of care delivery, clinic set-up, access, cost, quality, and clinic operation. A review of the articles based on this specified inclusion criteria resulted in 56 articles selected for full-text evaluation. Articles were excluded for analysis if they did not meet all of the specified inclusion criteria and could not classify within the research question and above themes. After full-text evaluation, 35 articles were selected for analysis in this current literature review. These articles met all of the inclusion criteria and were the most germane to the retail clinic industry. Moreover, the articles selected for this literature review fell in the 2006 to 2015 timeframe, making the literature review very current. **Figure 1** illustrates the systematic literature review process.

Throughout the systematic review, retail clinic topics fell within the following three themes: access, cost, and quality. As a result, the literature review was organized and delineated under these three themes.

Figure 1. Literature Review Process



Chapter 3

The Iron Triangle of Healthcare

The iron triangle of healthcare comprises the following three elements: access, cost, and quality, and is denoted as a triangle with access, cost, and quality representing each of the vertices of the triangle (Headley, 2006). These three elements are interconnected; therefore, intrinsic tradeoffs exist between the elements, often leading decision-makers to consider the impact of initiatives on each of the elements. Great care is taken to understand how altering one element of the iron triangle may jeopardize the other element(s) (Carroll, 2012; Headley, 2006). The elements of the iron triangle of healthcare are used to assess the impact of the retail clinic model as a provider of care within the healthcare industry.

Sub-Chapter 1: Access

Factors that inhibit access to care include the following: insurance availability, healthcare professional deficiencies, and healthcare disparities. According to Headley (2006), the primary obstacle in the healthcare system is affordability due to the pricing structure of the healthcare system, as well as the rate of inflation. The affordability component, among uninsured and insured individuals, of the healthcare system is preventing healthcare use among populations who cannot afford high costs for care (Headley, 2006).

In addition to the lack of affordability limiting access to care, healthcare disparities impede individuals from receiving suitable healthcare, and these disparities are particularly

prevalent among ethnic and culturally diverse populations. According to the Agency for Healthcare Research and Quality [AHRQ] (as cited in Headley, 2006), disparity with respect to healthcare is defined as reduced access, coverage, or quality for purposes not related to healthcare necessities. Racial and ethnic disparities may be driven by a lack of understanding by both patients and providers. Providers may contribute to healthcare disparities through biases, stereotypes, and clinical ambiguity when treating patients from minority groups (Institute of Medicine [IOM], 2002). Other factors that may contribute to increased healthcare disparities include linguistic impediments, healthcare system fragmentation, cost-containment incentives, and common locations for minority populations to receive care. For example, seeking care at a PCP's office is not as common among minority populations compared to whites (IOM, 2002). According to the Institute of Medicine [IOM] (2000), minority groups, such as Latin Americans and Native Americans, typically have public, or some low level, insurance instead of private insurance, which is more common among whites. Therefore, these low-level insured populations experience access barriers due to reduced coverage and high costs for care. Additionally, healthcare disparities exist through the social determinants of health (i.e. work environment, home environment, and income). Therefore, it is critical to view health with respect to the environment and socioeconomic factors in addition to the medical determinants of health (IOM, 2000).

The decrease in healthcare providers contributes to the access to care concern (Headley, 2006). This decline in healthcare professionals is particularly concerning given the aging of the baby boomers. Prevention and chronic disease management are primary concerns due to the demands of the aging baby boomers, which places a significant burden on primary care. A potential solution to improve access to care is the increased use of mid-level care providers (i.e.

nurse practitioners) to expand access to care, as well as convenience. Thus, the retail clinic industry attempts to solve this access to care concern (Headley, 2006). Retail clinics consist primarily of these mid-level care providers while advertising convenience.

Sub-Chapter 2: Cost

Reducing healthcare spending is a predominant concern among healthcare stakeholders, and there are efforts in place to address operational inefficiencies and overall utilization, such as more patient-centered care (Headley, 2006). According to healthcare researchers and professionals, some of the increase in healthcare spending is attributed to poor consumer awareness with respect to the pricing structure and costs for care. Therefore, a shift in focus has been on providing more transparent care with the idea that patients will make informed choices about consumption and venue of care, given they have better information upon which to base their decisions. Concerning the retail clinic industry, the design of these clinics includes transparent pricing so that clinic consumers are aware of the costs for their care.

According to Headley (2006), the increase in transparent pricing may result in consumers choosing less costly care, which could impact the quality component of the iron triangle. However, other individuals may choose increased quality regardless of cost, thereby highlighting the interdependence of the elements of the iron triangle (Headley, 2006).

Sub-Chapter 3: Quality

The United States is the leader in healthcare spending compared to other industrialized nations. Despite the considerable size of the nation's healthcare spending, there are several

inadequacies with respect to quality. These inadequacies include the infant mortality rate, life expectancy, and preventable deaths. The magnitude of medical errors has also subjected the healthcare system to scrutiny (Headley, 2006). According to the Institute of Medicine (as cited in Headley, 2006), medical errors result in 49,000 to 98,000 deaths per year. These quality concerns have spurred interest in seeking solutions to improve quality healthcare across the nation.

Headley (2006) acknowledges that the limited integration of evidence into practice contributes to substandard quality. The Institute of Medicine (as cited in Headley) reported variances in the delivery of healthcare among geographic areas (i.e. states, regions, organizations). Variation in healthcare practices is attributed to the lack of standardization and the lack of implementation of evidence-based research (Headley, 2006).

The quality of care concern has the potential to be reduced through the implementation of technology, such as computer-based technology for instituting a fixed and systematic information system. Industry experts and stakeholders assert that, although technology is expensive, the increase in technology will increase utilization and quality overall (Headley, 2006).

The present literature review is systematized under the three elements of the iron triangle framework: access, cost, and quality. Therefore, it is important to understand the interdependencies and impacts upon each element as decision-makers assess the use of retail health clinics.

Chapter 4

Literature Review Findings: Access

The dynamic nature of the U.S. healthcare system, coupled with the nation's pervasive focus on accessible healthcare, necessitates industry experts to find a solution to increase access to care. As a result, retail health clinics have received considerable attention, and these clinics are argued as a potential solution to reduce access barriers and offset emergency department overcrowding. Poor access to care is particularly evident among low-income individuals and minorities (Gallegos, 2007). Subsequently, these underserved, as well as uninsured, individuals are relying upon emergency department care. According to Weinick et al. (2010), roughly 13.7 to 27.1 percent of visits seen at an emergency department could be treated at either a retail health clinic or an urgent care center. This shift in care from the use of emergency departments to the use of alternative care sites could save nearly \$4.4 billion per year. Essentially, using alternative care sites as opposed to emergency departments could reduce both wait times and healthcare costs (Weinick et al., 2010). Despite the finding that retail health clinics could decrease costs and offset emergency department overcrowding, patients are still seeking care at emergency departments rather than clinics. The purpose of this section is to identify the primary retail clinic locations and consumer demographics to more fully understand the utilization patterns and drivers of those patterns.

While it was concluded by Weinick et al. (2010) that a significant amount of emergency department visits can be treated at retail clinics or urgent care centers, it is important to note that these alternative care settings are distinct. For example, retail clinics are typically located

within an existing store (i.e. retail chain, pharmacy, grocery store), and urgent care centers are located typically in stand-alone buildings. Another primary difference between retail clinics and urgent care centers is staffing. Retail clinics consist of mid-level care providers, such as nurse practitioners (NPs) and physician assistants (PAs), with reduced presence (i.e. oversight) of physicians. Urgent care centers, on the other hand, contain a minimum of one physician on site during the center's hours of operation. Additionally, retail clinics provide services for basic treatment and illnesses, such as the flu, bronchitis, allergies, and ear infections, whereas urgent care centers provide treatment for the same illnesses seen at retail clinics, as well as more severe cases, such as sprains, fractures, and contusions (Kaissi, 2009; Weinick et al., 2010). The four succeeding sub-chapters analyze the factors that impact access to care:

- Location
- Retail clinic user demographics
- Physicians
- Healthcare disparities

Sub-Chapter 1: Location

There exists a consensus among the literature regarding the geographic location of retail clinics. According to the literature, retail clinics are located primarily in an urban setting. Rudavsky and Mehrotra (2010) found that 88.4 percent of the 982 clinics studied were located in an urban setting. This particular figure that 88.4 percent of the retail clinics are located in an urban setting is supported in another cross-sectional descriptive study, as well as a previous literature review (Rudavsky, Pollack, & Mehrotra, 2009; Williams et al., 2011).

Clinics are less likely to be located in rural and underserved areas (Pollack & Armstrong, 2009) and, as a result, consumers living in these underserved areas are less likely to utilize clinic services. Thus, the existing underserved populations are still underserved, and retail clinics are not resolving the access to care concern that is prevalent among these underserved communities. The authors studied the location of retail health clinics in relation to the health professional shortage areas (HPSAs), and they found only 12.5 percent of retail clinics are located in HPSAs. Considering that 20.9 percent of the U.S. population lives in these underserved areas, there exists a significant number of people that could benefit from retail clinics (Rudavsky & Mehrotra, 2010). Proponents of the industry make the claim that clinics could improve access to care, particularly among the underserved and poor populations, but findings from this study prove otherwise. Clinics are not targeting underserved areas and, as a result, the access to care concern is still prevalent (Rudavsky & Mehrotra, 2010).

Retail clinics are not evenly distributed to rural or underserved areas, and the finding that retail clinics are particularly located in urban areas is concerning given that proximity and convenience are leading factors predicting clinic use (Ashwood et al., 2011). Proximity as a dominant factor predicting clinic utilization is supported through the relationship between consumer use and the driving radius to a clinic. For example, a retrospective cohort analysis found that clinic consumers living within 1 mile of a clinic are more likely to visit these clinics compared to those living 10 to 20 miles away (Ashwood et al., 2011). Concerning the urban population, a cross-sectional descriptive study acknowledged the finding that one-third of the urban population can access a clinic within a driving distance of ten minutes (Rudavsky et al., 2009). Another study reported that clinic consumers living within a 10-mile radius to a clinic

accounted for roughly 90 percent of the clinic users (Wilson et al., 2010). Conclusively, these findings support the verdict that proximity is a preeminent factor of clinic use.

In addition to proximity, the literature also supports the idea of convenience as a leading factor predicting clinic use. Moreover, convenience and clinic accessibility are impelling clinic growth (Mehrotra & Lave, 2012). Without clinic presence, the authors asserted that 51 percent of their study respondents would have sought emergency department or urgent care use (Hunter et al., 2009). Results from a qualitative study indicated that 26 percent of the interview respondents would have sought care at an emergency department if there were not an available clinic (Wang, Ryan, McGlynn, & Mehrotra, 2010). Regarding insured versus uninsured individuals about their next suitable option to receive care, more insured individuals claimed they would wait for a doctor while more uninsured individuals indicated they would visit an emergency department (Wang et al., 2010). Emergency departments as the alternative destination to retail clinics suggests that retail clinics may be a viable source of care to offset some of the unnecessary emergency department overcrowding. Additionally, the convenience of retail clinics may spur clinic use.

Increased convenience to clinic care has raised concerns regarding the total overall usage of healthcare services. Dispelling this concern about clinics increasing healthcare use, the authors, by using a propensity score matched-pair cohort study, concluded that the increased convenience to retail clinic care is not increasing use (Sussman et al., 2013). Essentially, the literature is invalidating the assumption that convenience will drive utilization.

According to the literature, retail clinics are located in areas that are more affluent. From a business perspective, clinic owners need these clinics to be profitable in order to stay in operation (Rudavsky & Mehrotra, 2010). In other words, what may be driving the location of

these clinics is the business model being built on achieving a profit. Although these clinics offer lower costs for care, higher income individuals may be more likely to spend their money for clinic services compared to lower-income and uninsured individuals. Affluence coupled with the primary location of clinics in urban areas, which allows clinics to target many potential consumers within a close proximity, complements the business angle. Therefore, the literature suggests that the need for profitability drives locations to the more affluent areas. According to Kaissi and Zucker (2010), hospital systems in affiliation agreements typically lack authority on selecting clinic location, and a myriad of determinants were presented with respect to the clinic location. For example, several of the authors' interview respondents indicated that there was little to no justification behind the decision to locate a clinic in a particular area. Among other respondents, the factors behind their decision-making included population density and convenience. In the case of hospital ownership of a clinic, the rationale behind their decision-making stemmed from specified conditions. For example, some respondents indicated the location of their clinic was based on expanding their network to communities who lacked access to their particular health system. Other respondents selected multiple locations with different demographics in order to uncover the locations best suited for clinic services. A particularly noteworthy finding is with respect to locating a clinic in a lower-middle-class community. According to the health system responsible for this decision, they expressed their discontent with this location, and they acknowledged that the clinic should have been located in an upper-middle-class community due to the lack of financial performance (Kaissi & Zucker, 2010). These findings suggest that clinics are not necessarily increasing access to care for lower-income and uninsured individuals, but rather increasing convenience among higher-income and insured individuals, according to Kaissi and Zucker (2010), and a large proportion of their study

respondents agreed with this conclusion. Clinic survival depends on the ability of the clinic to earn a profit, and according to one respondent, the clinic costs may still be too much of a financial burden for the uninsured individuals (Kaissi & Zucker, 2010). That being said, researchers and analysts acknowledge that clinics located in affluent, suburban areas are more likely to earn a profit (Costello, 2008). While locating clinics in urban and higher-income areas is beneficial from a business perspective, the rural and underserved populations are still in need of more care options. The results from a quasi-experimental survey design further support this conclusion that locating these clinics primarily in affluent areas decreases access to areas most in need of care (Pollack & Armstrong, 2009).

According to Weinick et al. (2010), the expansion of the Patient Protection and Affordable Care Act (PPACA) may result in increased access to care concerns. As the PPACA increases insurance coverage, retail clinics may be vital in reducing emergency department overcrowding and reducing access barriers. Moreover, the authors assert that clinics may be a practical solution to improving access to care, especially given the Massachusetts example where insurance accession did not reduce emergency department visits. The expansion of insurance among Massachusetts residents, due to the state healthcare reform, did not result in decreased visits to emergency departments for low-acuity care. Therefore, increasing alternative care venues (i.e. retail clinics) for treatment of low-acuity care is suggested as a mechanism to reduce healthcare costs (Weinick et al., 2010).

Sub-Chapter 2: Retail Clinic User Demographics

Socioeconomic Demographics. Given the findings that retail clinics are typically located in more urban and affluent areas, clinic users generally follow this location profile. **Table 1** summarizes the demographics of common retail clinic users. According to the literature, clinic users are characterized as healthier, wealthier, and better-educated individuals (Wang et al., 2010; Wilson et al., 2010). These findings are supported through a retrospective cohort analysis, which found that, compared to primary care users, retail clinic consumers are more likely to be healthier and wealthier individuals (Reid, 2012). According to Tu and Boukus (2013), clinic consumers consisting largely of higher-income individuals coupled with the location of these clinics in more affluent areas ultimately creates greater access to clinic care for higher-income individuals. The authors defined higher-income as families netting 600 percent of the federal poverty level and lower-income families grossing less than 200 percent of the federal poverty level (Tu & Boukus, 2013). Findings from a retrospective cohort analysis also support the findings that a large proportion of clinic patients include individuals in the higher-income brackets, and the use of clinic services occurs primarily among healthy and wealthy consumers who typically live the closest to clinics (Ashwood et al., 2011). A healthy patient, defined by Reid et al. (2012), is one without a chronic illness, and 90 percent of clinic patients studied were considered healthy patients compared to 85.3 percent of PCP patients. A 2015 study indicated that only 8 percent of its study participants visited a clinic for a chronic illness (Mehrotra, Gidengil, Setodji, Burns, & Linder, 2015). Thus, retail clinic patients are generally healthier individuals without a chronic illness, and it can be assumed that the majority of clinic patients are able to properly self-triage.

Insured versus Uninsured. Regarding insured versus uninsured retail clinic users, the proportion of uninsured clinic users varies slightly across the literature. In the report from a quasi-experimental study, the authors referenced surveys, which indicated that about 25 percent of clinic users are uninsured (Pollack & Armstrong, 2009). Additional studies included in the present analysis reported percentages of uninsured clinic consumers to be in the low twenties. According to Costello (2008), one-third of clinic users do not have health insurance. Ultimately, it can be concluded that about 20 to 33 percent of retail clinic users are uninsured. This finding is relatively consistent with a previous literature review, which concluded that approximately 20 to 26 percent of retail clinic consumers are uninsured (Williams et al., 2011). Strictly comparing the number of uninsured individuals in retail clinics to emergency departments, findings from a cross-sectional study found a greater percentage of uninsured individuals visiting retail clinics compared to uninsured individuals visiting emergency departments. More specifically, the percentage of emergency department visits and retail clinic visits among uninsured individuals was 17 and 26 percent, respectively (Weinick et al., 2010). According to Hunter et al. (2009), there are roughly 44 million uninsured U.S. individuals, and the authors contend that retail clinics are meeting the needs of uninsured and low-income individuals. However, the majority of the existing literature does not support the statement that clinics are meeting the needs of a large sector of uninsured individuals; thus, there remains a significant number of uninsured and low-income individuals still lacking, or not taking advantage of, clinic services.

Concerning health insurance plans, one study produced noteworthy findings with respect to the enrollment in health insurance plans among clinic users. This study assessed whether insurance plans differed among clinic users and nonusers, and according to the findings, PPO enrollment characterized the majority of both clinic users and nonusers. The study also examined

the healthcare plans predicting clinic use. According to these findings, individuals enrolled in either a CDHP plan or an HMO are more likely to seek clinic care (Wilson et al., 2010).

Age. Retail clinics generally serve a patient population between the ages of 18 and 44, and these patients account for nearly twice as many clinic visits compared to those seeking PCP care (Ashwood et al., 2011; Mehrotra et al., 2008). A qualitative study reported similar findings that the age of a typical clinic consumer ranges from 19 to 39 years of age (Wang et al., 2010). Additionally, retail clinic users generally have a family (Mullin, 2009), and a research brief provided the finding that families consisting of a participant between the ages of 18 and 49 are more likely to indicate using clinic services (Tu & Boukus, 2013). Compared to emergency department and PCP visits, the youngest and oldest patients are not as likely to seek retail clinic care (Mehrotra et al., 2008). This finding supports a previous literature review finding that infants, the elderly, and children ages 2 to 5 are less likely to use retail clinic services compared to PCPs and emergency departments (Williams et al., 2011). However, the number of retail clinic patients 65 years of age and older may be increasing. For example, findings from a cross-sectional study reported that, compared to patient visits from 2000 – 2006 to those from 2007 – 2009, patients within the 2007 – 2009 period were more likely to be 65 years of age or older (Mehrotra & Lave, 2012).

Gender. Regarding gender, clinic users are more likely to be female (Ashwood et al., 2011; Reid et al., 2012; Wilson et al., 2010). According to a cross-sectional comparison of retail clinic, PCP, and emergency department visits, the proportion of female users was similar with 54 to 63 percent using retail clinics, yet statistically different ($p < 0.001$) (Mehrotra et al., 2008). Conclusively, age and sex are strong predictors of retail clinic use, and young adults, particularly young females, contribute the majority of clinic visits (Wilson et al., 2010). According to the

Convenient Care Association, over 3.4 million people have used the 1,000 available clinics.

However, opponents believe demands for clinic care are overstated (Costello, 2008). Regarding the future use of these clinics, the proportion of children and adults that are likely to seek clinic care are 15 and 19 percent, respectively (Costello, 2008).

Table 1. Demographic summary of the common retail clinic users

Most Common Retail Clinic Users
<ul style="list-style-type: none"> • Healthier • Wealthier (i.e. netting 600 percent of the federal poverty level)* • Better-educated • Younger adults (19-44) • Families • Females

*(Tu & Boukus, 2013)

Sub-Chapter 3: Physicians

Physicians are among the most vocal stakeholders in terms of expressing their concerns with retail clinics. Physicians claim that retail clinics disrupt their patient relationships. That being said, findings in the literature refute this concern, and sources assert that a large portion of clinic patients do not even have a PCP relationship (Mehrotra & Lave, 2012; Reid et al., 2012). A RAND study (as cited in Miller, 2011) found that 39 percent of its study participants reported having a PCP relationship, and this same percentage of clinic patients with a PCP relationship is acknowledged in a previous literature review (Williams et al., 2011). Therefore, about 60 percent of retail clinic patients are lacking a PCP relationship. Thus, there is essentially no PCP-patient relationship to disrupt (Mehrotra et al., 2008). According to the clinic consumers with a PCP

relationship, they sought clinic services when they could not see their PCP within a reasonable time (Wang et al., 2010). Low-income and uninsured individuals have disclosed that the absence of a PCP relationship was a primary reason for using clinic services, and this reason was more than twice as likely reported among uninsured individuals compared to insured individuals (Tu & Boukus, 2013). Additionally, the authors reported that patients are not trying to forget their PCP, but they simply want to use clinics for minor, quick care (Wang et al., 2010). Conclusively, a rather large percentage of clinic consumers do not have a PCP relationship, and clinic consumers are not necessarily using clinics to replace their PCP entirely. Moreover, the increased use of retail clinics may take the burden off PCPs, especially due to the existing PCP shortage. The decrease in PCPs contributes to access barriers, and according to sources, a primary reason driving clinic growth is due to this PCP shortage (Kaissi & Zucker, 2010; Williams et al., 2011). Furthermore, by freeing up PCPs, additional time may be allotted to treat more complex conditions without the interruption of minor acute conditions that can be treated at retail clinics (Miller, 2011).

Sub-Chapter 4: Healthcare Disparities

Researchers acknowledge several healthcare disparities among minority and low-income individuals. In the Hispanic population, healthcare disparities are particularly prevalent. The Hispanic population currently consists of about 15 percent of the total American population (Mullin, 2009). However, the Hispanic population is a growing sector, and 67 million Hispanics are projected to be added to the U.S. population between 2000 and 2050 (Gallegos, 2007). A 188 percent increase is anticipated, which will result in over half of the U.S. population consisting of

Hispanic individuals by 2050 (Gallegos, 2007). According to Gallegos, (2007), the following factors contribute to healthcare disparities for Hispanics: insurance coverage, geographic location, economic status, language, and culture. Because the retail clinic model mirrors the Hispanic and Latin American culture, more uninsured Hispanics typically receive care at clinics (Hunter et al., 2009; Mullin, 2009). In their native countries, Hispanics normally seek care through a spiritual healer or pharmacist. Thus, researchers and analysts posit that retail clinics may serve as a solution to reduce some of the existing healthcare disparities among this minority group. Essentially, retail medicine coupled with consumer education and awareness may be the solution to aid this population (Gallegos, 2007).

Chapter 5

Literature Review Findings: Cost

Because of retail clinics' lower cost and higher volume structure of care delivery, the retail clinic concept has the potential to meet the needs of healthcare professionals and policymakers by reducing the overall cost of care. The retail clinic concept seems rather attractive; however, the economic sustainability of these clinics is questioned. Clinics have been falling short on their ability to generate a profit, and the newness of the industry contributes to the financial challenges faced by these clinics. The purpose of this section is to address the retail clinic model, operating costs, costs per visit, and the potential financial challenges.

Sub-Chapter 1: Retail Clinic Model

Originally, venture capitalists financed retail health clinics. Today, the majority of clinics are owned by hospital systems or drug stores, and approximately 20 percent of clinics operate independently. The motivations behind clinic operation/ownership vary among retailers and hospital systems. Clinic retailers are motivated to operate a clinic for the following reasons: higher prescription sales, merchandise sales, etc. The motivations behind hospitals operating clinics are as follows: expanding/retaining network, attracting patients to their system, and offsetting emergency department overcrowding (Laws & Scott, 2008).

According to Kaissi and Zucker (2010), hospital systems are experimenting with this method of care delivery and are associating with retail health clinics under one of two models:

(1) an affiliation agreement between the hospital system and the retail clinic chain or (2) clinic ownership by the hospital system. Through an exploratory approach, the authors of the study interviewed administrators and clinical leaders from seven health systems to evaluate the strategic motivations associated with the formation of clinics. According to the authors, these motivations include trialing an innovative care delivery method, increasing connectivity with consumers, and expanding market share through hospital and PCP referrals (Kaissi & Zucker, 2010). The authors further reported, however, that the prevailing motivation behind engaging in clinic activity is due to hospital systems wanting to beat competition. Therefore, hospital systems want to expand their network through retail health clinics before their competitors (i.e. other hospital systems), but acknowledge that they are instituting initiatives with little knowledge and inadequate research on the industry. The study found that decision-making was more of a reactive strategy than a proactive tactic for about half of the study participants. Thus, Kaissi and Zucker (2010) contend that this lack of sufficient knowledge on the part of the hospital investors may explain the insufficient financial outcomes apparent in clinics. Kaissi et al. (2013) employed a survey questionnaire to analyze and assess the level of satisfaction among health systems, and despite the financial challenges, survey respondents from their study indicated that a number of strategic targets were reached. According to Kaissi et al. (2013), these health systems are improving, if not attaining, their strategic goals due to owning a retail clinic. These strategic targets included additional referrals, competition defense, brand expansion, and greater access to care (Kaissi et al., 2013). The literature shows that while financial performance is important, achievement of strategic and operational goals are also important. Therefore, increased knowledge and research by health systems using the retail clinic approach will not only aid in the

overall performance and operation of retail clinics, but will also fill the strategic need of improving access to care.

The long-term sustainability of the retail clinic industry revolves largely around its ability to overcome several operational challenges. According to the literature, these operational challenges include clinic staffing, lease terms, location of store, financial concerns, poor patient perceptions, and the novelty of the clinic model (Kaissi & Zucker, 2010; Kaissi et al., 2013). Specifically regarding staffing concerns, the authors address the challenges associated with enticing NPs to work at a clinic. A challenge exists in finding employees who will “sit in a box for ten hours” (Kaissi & Zucker, 2010; Kaissi et al., 2013). In other words, the routine and basic services offered at retail clinics can be dull and mundane. To overcome this staffing challenge, a higher pay rate is given by a number of clinics in order to counterbalance the repetitive and unenticing work. Additionally, other clinics located its clinic care providers in a family clinic setting for a few days each week so they remain committed and challenged with their work. This solution is exemplified with MeritCare Health System, located in Fargo, North Dakota (Kaissi & Zucker, 2010).

Sub-Chapter 2: Retail Clinic Costs (Operation)

According to Kaissi and Charland (2013), retail clinic growth was the largest from 2006 to 2008, followed by another period of heavy growth in 2011. Among the clinics that have closed, the average length of time in operation was about 23 months (i.e. approximately 681 days). Among the remaining clinics, the duration that clinics have been in operation is about 39 months, on average (i.e. approximately 1162 days). The majority of open clinics are found in

CVS, Walgreens, and Walmart, and hospital systems operate 17.8 percent of the existing clinics.

The authors contend that the decline in clinic growth is attributed, in large part, to poor profitability and low patient demand. Between 2006 and 2012, slightly more than 500 clinics closed (Kaissi & Charland, 2013). Ultimately, the closing of retail clinics suggests that these clinics continue to face challenges with respect to cash flow, clinic perceptions, and the novelty of the industry (Laws & Scott, 2008).

Due to the novelty of the industry, there is no established template regarding clinic set-up and operation. As a result, clinic operators are closing down their clinic(s) due to underestimating the clinic break-even point, which challenges the long-term sustainability of these clinics. Thus, it is essential to report the available literature with respect to clinic start-up and operational costs. According to Mullin (2009), the typical retail clinic ranges from 200 to 400 square feet, and they generally comprise the following features: reception, exam room(s), and toilet. These clinics are usually found in areas within retail stores that are underutilized. Lease costs in these store locations range on average from \$50 to \$70, annually, per square foot (Mullin, 2009). Concerning sponsorships, the cost-layout is distinct. In this particular situation, sponsorship is defined as the retailer providing the clinic space, and the sponsors covering the costs for furniture, supplies, and/or retrofitting. The retail host builds the clinic space for a fixed cost between \$20,000 and \$100,000. After the clinic is bought and constructed, the owners/sponsors cover the remaining costs (i.e. furnishing, supplies, etc.), which can amount to anywhere from \$25,000 to \$140,000 depending on the size of the clinic and number of exam rooms (Mullin, 2009). Costello (2008) indicated that clinics cost, on average, about \$50,000 for setup. Regarding employee salaries, the salaries for NPs contribute \$65,000 to \$80,000 to retail clinic costs, and physician salaries can be double that dollar amount (Costello, 2008).

Regarding clinic operation, the majority of clinics conduct business with 85 percent overhead stemming from salary, corporate association, and lease costs. If two patients are seen every hour (i.e. 17 to 23 patients per day), break-even can occur after 18 to 24 months (Mullin, 2009). Post breakeven point, a clinic can expect 80 percent of revenues to convert to profit. Ideally, a clinic is anticipated to accrue \$1,000,000 in revenue annually, and, according to Mullin (2009), several clinics have reached this success. Concerning the reduction in unnecessary emergency department visits, Kaissi et al. (2013) acknowledge uncertainty in the overall impact retail clinics have on reducing these visits. However, the authors recognize the success of Bellin Health, a healthcare system in Green Bay, Wisconsin, in preventing emergency department visits. Bellin Health manages forty clinics, and these clinics have resulted in cost-savings of \$52.9 million due to the reduction in emergency department visits (Kaissi et al., 2013).

The profitability concern is at the forefront among clinic operators. A low profitability margin exists, and opponents of the retail clinic model acknowledge this profitability concern (Costello, 2008; Kaissi & Zucker, 2010). According to Kaissi and Charland (2013), clinic closings can be contributed to poor profitability and demand. Ultimately, patient volume and revenue are crucial to clinic survival (Costello, 2008; Hayden, 2009). The authors contend that clinics location is critical under the current model, and that suburban, more affluent areas are more likely to be profitable (Costello, 2008). Thus, the profitability concern appears to be a key motive in the decision to locate clinics in more affluent areas, rather than targeting underserved populations.

Sub-Chapter 3: Retail Clinic Costs (Visits)

There is a consensus among the literature with respect to lower costs associated with retail clinic care. Regarding clinic costs, an uninsured individual pays less than \$100 per visit with transparent pricing, and an insured individual pays a minor co-payment or deductible (Cassel, 2012). These clinic costs are significantly less than the costs for care at emergency departments. For example, the uninsured pay, on average, a clinic cost of \$78 and \$63 for a sore throat visit and adult tetanus booster vaccine, respectively (Rudavsky et al., 2009). Compared to an emergency department, the costs of care would accumulate to several hundred dollars for the same services (Cassel, 2012).

The average cost for a minor illness at retail clinics is between \$40 and \$80 (Costello, 2008; Williams et al., 2011; Hunter et al., 2009; Evans, 2010). According to Malvey and Fottler (2006), a clinic visit can even be as low as \$25. Comparatively, a doctor's visit for a minor illness costs insurers about \$110 while it is less than \$60 at a clinic (Malvey & Fottler, 2006). About two-thirds of retail clinic visits are now covered by insurance (Costello, 2008). Regarding the length of a clinic visit, the duration of a typical clinic visit is 15 to 40 minutes (Mullin, 2009). Therefore, the length of a clinic visit is attractive compared to the potential hours of waiting in an emergency department.

According to a cross-sectional study comparing costs at retail clinics (i.e. MinuteClinics) to PCP offices and urgent care sites, the total costs per care at MinuteClinics were lower compared to these alternative care sites. This study analyzed five conditions commonly treated at retail clinics, and the authors acknowledged that clinic use for these five conditions was increasing at a rate of three percent annually. According to this cross-sectional study, costs savings per episode at retail clinics average between \$50 and \$55; however, only 6 percent of

these total episodes actually receive these savings. Thus, the authors concluded that uncertainty still exists about the relationship between retail clinics and reducing total healthcare costs (Thygeson et al., 2008).

Affirming the previous study, a second cross-sectional study reported that retail clinic visits were associated with lower total costs per episode in relation to PCP offices, emergency departments, and urgent care sites, and no ensuing hospitalizations were found after a clinic visit compared to a non-clinic visit (Spetz, Parente, Town, & Bazarko, 2013). When NPs practiced independently, retail clinic costs were even lower. Findings from a propensity score matched-pair design reported similar findings that a lower total cost of care for retail clinic patients was found, and pharmaceutical costs were similar among clinic users and non-users. The authors further acknowledge that total savings were found primarily from decreased medical spending that occurs mainly in PCP offices and from hospitalizations (Sussman et al., 2013). According to Malvey and Fottler (2006), cost savings associated with retail clinics stem primary from the use of NPs.

Similar to the objectives of previously acknowledged studies, the study by Mehrotra et al. (2009) sought to understand how the costs of care compares among retail clinics and other care venues. According to their findings, lower total costs for cases treated at retail clinics were identified compared to matched cases treated at urgent care sites, emergency departments, and PCP offices. The study findings indicate that the cost for clinic services was lower compared to PCP visits and urgent care visits, as well as emergency departments visits at rates of 30 to 40 and 80 percent, respectively (Mehrotra et al., 2009). Specifically concerning lower costs compared to emergency departments, the authors acknowledge that costs savings were attributed largely to reduced E&M reimbursements and testing rates in the laboratory (Mehrotra et al., 2009).

Ultimately, it was concluded from the study that retail clinics provide cheaper treatment for three common illnesses compared to PCP office and urgent care sites, and they were able to accomplish cheaper treatment without compromising quality or preventive care. Determinately, retail visits are less costly on an episodic basis.

Chapter 6

Literature Review Findings: Quality

The nation's pervasive focus on quality healthcare contributes to the dispute regarding the level of quality care received at retail health clinics. Uncertainty surrounding retail clinic quality of care outcomes is largely attributed to the lack of published literature and empirical studies addressing this concern. The following section addresses the existing studies related to the quality of care in retail clinics. More specifically, this section will address quality improvement measures, outcomes, and the overall satisfaction with clinic care from both patients and providers. In addition, this section will compare the education and quality outcomes between clinic care providers, particularly NPs to physicians.

Sub-Chapter 1: Place in the Care Continuum

The findings associated with retail clinic concerns are consistent with an existing literature review. According to the literature, medical associations have disclosed several concerns regarding the quality of care delivered by retail clinics, particularly among clinics that lack a healthcare system relationship. The AAP, AAFP, and AMA are among these associations, and a lack of continuity of care and missed diagnoses are one of many concerns addressed by these groups. As a result, recommendations and guidelines have been drafted by these associations and disseminated to clinics. These guidelines address physician referrals, standardized protocols, and electronic health records, among others. The Convenient Care

Association (CCA), established in 2006, promotes healthcare that is both accessible and affordable, without compromising quality care. The CCA follows the standards and protocols derived from the American Academy of Family Practitioners, the American Academy of Pediatrics, and the American Medical Association. Among the existing hospital systems and retail clinic companies, nearly 95 percent are CCA members (Williams et al., 2011). Thus, a large majority of the existing retail clinics follow established guidelines to ensure high quality of care.

The quality of care concerns presented by physician and medical associations are ubiquitous among the literature. Gaining physician support remains the primary task of a hospital system; however, opposition and uncertainty from physicians remains a leading operational challenge (Kaissi & Zucker, 2010). Competition and quality concerns are at the forefront of physician hesitation and, according to Kaissi and Zucker (2010), the majority of systems sampled acknowledged that they spent a considerable amount of time explaining the retail clinic model and convincing physicians that clinics will not harm their practice volume. In order to combat both physician and public hesitation on clinic care, several steps have been implemented among clinic operators and hospital systems to ensure a high standard of quality care. According to the literature, these steps include Joint Commission accreditation, post-appointment check-up calls within a 48-hour period, and peer review, among others (Kaissi et al., 2013; Miller, 2011). Moreover, many clinics have incorporated regulated protocols to facilitate positive care outcomes. Along with the implementation of strict standards and protocols, clinics are also using electronic medical records (EMRs) to ensure a high level of care. MinuteClinic is an example of a retail clinic chain enforcing practice procedures and guidelines. More specifically, the chain allotted \$15 million in software, which encompasses practice protocols generated by healthcare

professionals (Malvey & Fottler, 2006). According to a study, retail clinic protocols that are both evidence-based and rooted in EMRs may be the solution to improving quality of care (Sussman et al., 2013).

Sub-Chapter 2: Quality Studies

A major gap in the literature exists regarding studies assessing the quality of care in retail clinics. According to Mullin (2009), there is no independent and comprehensive study analyzing the quality of care at retail clinics parallel to other care settings. However, several studies have measured retail clinic quality through the following methods:

- Antibiotic prescribing rate and costs
- Quality scores and preventive care delivery
- Early-return visits

Antibiotic prescribing rate and costs. Among the existing retail clinic concerns, a prominent concern is over-prescription. Opponents of retail health clinics contend that the location of clinics in pharmacies may result in an increased antibiotic prescribing rate (Costello, 2008). However, Costello (2008) acknowledges a lack of data supporting the over prescription concern, as well as the overall quality of retail clinic care. According to a recent study by Mehrotra et al. (2015), the antibiotic prescribing rate was consistent in their comparison between retail clinics, PCPs, and emergency departments. Therefore, there is little evidence that retail clinics adversely affect the prescription rate (Mehrotra et al., 2015).

Quality scores and preventive care delivery. Among the limited literature addressing retail clinic quality of care, one study found that the quality of care scores, preventive care

delivery, and prescription costs were comparable among retail clinics, PCP offices, and urgent care sites. Emergency departments, however, had higher prescription costs and lower quality compared to retail clinics (Mehrotra et al., 2009).

Early-return visits. The identification of early-return visits is another approach to measuring the quality of care provided by retail clinics. An early-return visit is defined as a return visit within two weeks after the previous visit (Rohrer, Garrison, & Angstman, 2012). An existing literature review reported on an early-return visit study, which concluded that an increase in early-return visits among both pediatrics and adults is unwarranted (Williams et al., 2011). A second study assessing the early-return visit rate was conducted to affirm or refute the previous early-return study reported in the literature review by Williams et al. (2011). According to the findings from this more recent study, retail clinics had a lower early-return visit rate compared to standard office care (Rohrer et al., 2012). Likewise, the study by Wilson et al. (2010) reported a higher rate of health concerns treated within one clinic visit compared to non-clinic visits. It is also noted that a lawsuit for medical malpractice has not occurred to date; however, a caveat to this particular finding is the age of the data (Costello, 2008). According to Hayden (2009), the increasing practice of insurance companies reimbursing clinics insinuates that retail clinics are providing services at a higher quality of care than given credit for by physicians. However, there remains the need for a more comprehensive study to increase the cogency of the valuation of the industry's services on a more macro level. To date, research is still limited in its assessment and evaluation of the retail clinic industry, particularly with respect to quality care.

Sub-Chapter 3: Owner and Patient Satisfaction

Concerning satisfaction, a study by Kaissi et al. (2013) analyzed the level of satisfaction among hospital systems with respect to their level of clinic ownership, specifically concerning operational and strategic aspects within a clinic. Regarding operational challenges, survey respondents (i.e. hospital systems) reported to be relatively satisfied with clinic employment, as well as retailer relations with the location of the store, lease agreements, and consumer demographics. Although satisfaction with staffing was reported among hospital systems, the authors acknowledge that one in five of the respondents were not satisfied. As previously addressed, hospital systems are still encountering problems with enticing care providers to work in their clinic(s). Neutral levels of satisfaction were reported among hospital systems with respect to retail clinic guidelines and regulations. Low satisfaction was reported for clinic seasonality and insurance remuneration. Patient quantity and marketing initiatives response received the lowest satisfaction rating. Overall dissatisfaction was reported for profitability (Kaissi et al., 2013). In summary, hospital systems are generally satisfied with clinic staffing, location(s), lease agreements, and the demographics of patients using their clinic(s). These hospital systems are less satisfied with their ability to attract and retain clinic staff, regulatory environment, seasonal variation in patient volume, and reimbursement. Conclusively, the validity and sustainability of retail health clinics depends largely on their ability to resolve several practical and strategic concerns.

Clinic consumers, on the other hand, appear to be relatively satisfied with retail health clinics, and these findings remain consistent with an existing literature review. According to Laws and Scott (2008), satisfaction ratings among clinic consumers with respect to quality, cost, and access (i.e. convenience) are all in the realm of 90 percent. This high satisfaction rating has

not deviated throughout the years. For example, Hayden (2009) referenced a Harris poll study, which reported that respondents were somewhat or very satisfied with clinic quality, staff credentials, and cost at 90, 88, and 86 percent, respectively. Additionally, it has been reported that convenience and clinic care received a satisfaction score of 92 and 89 percent, respectively (Williams et al., 2011). According to Malvey and Fottler (2006), high satisfaction ratings were found predominantly with working parents who no longer have to leave work and wait an excessive amount of time to receive care. Contrary to these high satisfaction ratings, the patient's trust in the provider's ability to diagnose a more serious medical problem was a concern for 75 percent of the respondents, and 71 percent indicated that they would be apprehensive with the credentials of the care providers if a clinic was not physician administered (Williams et al., 2011). That being said, the negative patient perception about overall retail clinic quality of care is a challenge for hospital systems. Overall, the findings in the literature supports relatively high satisfaction ratings among consumers.

Sub-Chapter 4: Staffing

The ability for clinics to provide services at lower cost stems largely from the staffing of retail clinics with primarily NPs and PAs. However, controversy exists with respect to NP qualifications and their ability to practice independently in a clinic. On one hand, the literature addresses several concerns with the level of education and training of NPs compared to PCPs. On the other hand, proponents of the retail clinic industry contend that this consumer-driven model of care is providing available, affordable, and suitable care (Hansen-Turton, Ryan, Miller, Counts, & Nash, 2007). The retail clinic model typically consists of a top-level director within

the organization, nursing management, and/or an NP or medical officer who supervises the activity within their particular organization. As stated previously, clinics are incorporating standards and protocols to ensure a high level of quality care; and according to Hansen-Turton et al. (2007), satisfaction with NPs, PAs, and physicians in clinics has received high consumer satisfaction. Studies referenced by Miller (2011) indicate that the quality of care provided by NPs is either similar or superior to other care venues. The findings by Rohrer et al. (2012) provide findings homogenous with the existing literature that NPs and PCPs provide proportionate quality of care.

According to the literature, it is anticipated that the use of NPs will contribute to the expansion of the healthcare delivery method. Originally, the independent practice of nurses occurred largely in rural areas, or areas lacking major care sites. Overtime, the use of NPs and the extent of their education has increased. Compared to PCPs, the authors acknowledge that underserved areas more commonly consist of advanced practice nurses (APNs), and a Certified Registered Nurse Practitioner is a type of APN (Hansen-Turton et al., 2007). To encourage the expansion of retail clinics in underserved areas, finding and hiring NP staff in these areas might be easier.

Concerning the qualifications of retail clinic care providers, an argument is made that PCPs have more experience and education compared to NPs. However, a counter argument is made that NPs may be more than capable and competent to provide the services treated at retail clinics (Malvey & Fottler, 2006). Additionally, the increase in education, training, and degrees available to NPs offset some of the concerns regarding their qualifications. Today, NPs are eligible to receive a master's degree, and the number of master's degrees offered among

universities has increased. This increase in master's programs may be indicative of NP demand (Hansen-Turton et al., 2007).

States have different laws with respect to NP training and education, and Hansen-Turton et al. (2007) suggest that the differing levels of state regulations subjects NPs to physician criticism. For example, passing a mandatory certification exam from either the American Academy of Nurse Practitioners, the National Certification Board of Pediatric Nurse Practitioners and Nurses, and the American Nurses Credentialing Center is a requirement among forty-two states, and a master's degree is a requirement among these organizations. Therefore, standardization among the states may reduce some of the physician criticism.

Mid-level practitioners and physician extenders are titles commonly used in place of NP; thus, misperceptions about NPs and their position can occur. Additionally, misunderstanding is prevalent in the work performed by NPs and PAs. Essentially, PAs are trained to work under, augment, and complement a physician, whereas NPs are licensed to practice independently and adhere to the nursing model. There is variation, and disagreement, among the states with respect to NP scope of practice and NP oversight (Hansen-Turton et al., 2007; Laws & Scott, 2008). According to the literature, the number of states (the District of Colombia included) requiring no physician participation, physician participation without written relationship authentication, and written authentication of physician requirement is 23, 4, and 24, respectively (Hansen-Turton et al., 2007; Laws & Scott, 2008). Hansen-Turton et al. (2007) contend that, although the degree of NP practice differs across the states, NPs are able to provide proportionate care to the care provided by a PCP. Contributing to the misperceptions of NP care, the absence of a universal definition of NP services subjects NPs to doubt and uncertainty. However, NP training, education, and scope of practice has resulted in the ability of NPs to operate independently, or

with distant physician consultation, in 43 states. Physician involvement is only mandatory in seven states, adding confidence to the argument for independent practice of NPs (Hansen-Turton et al., 2007).

Concerns regarding NPs in retail clinics stem largely from their scope of practice. An argument is made that NPs rely too heavily on strict protocols; therefore, they may not notice severe health complications because they do not deviate from those protocols (Hayden, 2009). A concern is also expressed regarding proper referrals when there are severe health complications. To counteract these concerns, if a patient's condition requires treatment beyond the scope of care of the NP, the NP will refer the patient to their PCP, or further direct them to a suitable care site if the patient does not have a PCP (Hansen-Turton et al., 2007; Hayden, 2009). Considering many clinic patients do not have a PCP relationship, the clinic provider will provide a list of appropriate referrals so the patient can receive proper care. Hansen-Turton et al. (2007) acknowledged that, in the future, the majority of retail clinics will be able to share electronic medical records with PCPs. In the meantime, retail clinic patients are able to receive a hard copy of their record to pass on to their regular care provider.

A rising shortage of physicians emphasizes the need for NPs. According to the literature, the physician shortage is projected to be 200,000 physicians by the year 2020 (Hansen-Turton et al., 2007). Dermatology, plastic surgery, and otolaryngology have become the new markets in which individuals are pursuing careers (Hayden, 2009). With the physician rate continuing to decline, support is present in the increased use of NPs, retail clinics, and the development of the retail clinic industry.

Chapter 7

Discussion

Sub-Chapter 1: Access

Access to care is a preeminent healthcare concern, and the retail clinic model is designed to provide treatment and services for minor illnesses while promoting convenient and accessible care. Proponents of the retail clinic industry contend that clinics have the potential to not only increase access to care, but also to offset emergency department overcrowding and reduce healthcare expenses.

Discussion of retail clinic location. Rural and underserved populations are particularly in need of healthcare services, but despite the need to increase access to care for these populations, findings in the literature review show that the primary clinic location is in urban locations. Given that proximity is a principal factor predicting clinic use, individuals living closer to retail clinics are more likely to use their services. The literature suggests that retail clinics are not necessarily increasing access to care for underserved and rural populations, but are rather increasing convenience to urban populations. Additionally, retail clinics are more commonly located in affluent areas. Locating clinics in affluent areas is rather advantageous from a business perspective due to the increased profitability potential, but lower class families and uninsured individuals remain in need of more care options.

Discussion of retail clinic consumers. The typical retail clinic users are healthier and more affluent individuals. Among the existing clinic users, less than one-third of its users are

uninsured. Thus, a large number of uninsured individuals are not utilizing clinic services. Additionally, a significant number of retail clinic patients lack a PCP relationship; therefore, the concern among physicians that retail health clinics are disrupting the relationship with their patients is contested. There exists a consensus in the literature that clinic consumers with a regular PCP are not using retail clinic services to replace or overlook their PCP, but rather to receive quick care. Concerning the age of clinic users, young adults are the primary clinic consumers. However, it is acknowledged that the proportion of patients aged 65 and older receiving clinic services is increasing.

Sub-Chapter 2: Cost

Discussion of the challenges facing clinic viability. Retail clinics provide an attractive cost for treatment, and according to the literature, costs per visit are less than PCP, urgent care, and emergency department visits. Despite the lower costs for clinic care and the increased number of retail clinics, the novelty of the clinic model and the lack of template to follow ultimately contribute to financial challenges faced by these clinics, and uncertainty remains around the survival and economic viability of this industry (Kaissi & Zucker, 2010; Kaissi et al., 2013). The research is suggesting that retail clinics may simply be a fad. The lack of success model and business template suggest the varying approaches of clinic set-up and operation among hospital systems and for-profit companies and the use of trial and error to develop the best model to sustain operations. Hospital systems have entered the retail clinic industry, and they are collaborating with clinics through an affiliation agreement or through ownership. However, hospital systems are admitting their lack of preparation and expertise in the industry.

The profitability concern is prevalent among retail health clinics, and many clinic operators misjudge the financial timeline. For example, a clinic can expect to break-even after about two years, assuming that they are treating 17 to 23 patients daily. Unfortunately, many clinic operators become frustrated with their clinic's profitability after a few months and shutdown before reaching their break-even point, which ultimately suggests unrealistic expectations among retail clinic operators.

In order for clinics to reach their break-even point, patient volume and demand are vital for profitability and clinic sustainability. In order to attract clinic consumers, it is important for clinics to overcome adverse patient perceptions and improve their advertising and marketing strategies.

Sub-Chapter 3: Quality

Discussion of quality procedures and outcomes. Retail clinics have implemented several standardized protocols, such as Joint Commission accreditation, peer review, and check-up calls to certify a competitive level of quality care. Among the limited studies assessing the quality of care in clinics, retail clinics appear to be providing proportional quality care compared to other care settings. Furthermore, the literature concludes that the quality of care provided by NPs is similar to PCPs, which dispels concerns regarding NP performance and qualifications. Although retail clinics appear to be providing high quality care, researchers acknowledge that more detailed and inclusive studies are needed to increase the validity of clinic services. Increasing the validity of the retail clinic industry coupled with the expansion of the industry will result in several potential stakeholder winners and losers.

Retail clinic winners and losers. According to Malvey and Fottler (2006), and referenced by Kaissi and Zucker (2010), there are several potential winners and losers from the expansion of the retail clinic industry. **Table 2** and **Table 3** summarize the rationale behind the stakeholder classification as winners or losers. Amid the industry stakeholders, the potential winners include insurance companies, physicians (specialists), nurses, physician assistants (PAs), third-party payers, and emergency departments. These stakeholders are characterized as winners because of the anticipated benefits such as cost savings, increased referrals, increased career possibilities, and reduced overcrowding (i.e. emergency department overcrowding), among others. Hospital systems are categorized as winners or losers, contingent on the situation. For example, hospital systems stand to win if they subcontract for retail health clinics. By subcontracting with retail health clinics, hospital systems can potentially alleviate some of the unnecessary emergency department visits, connect patients with both the appropriate providers and resources to treat minor services, and center their attention on their primary business (Malvey & Fottler, 2006).

Table 2

The Expansion of Retail Health Clinics: Winners	
Stakeholder	Rationale
Third-party payers	Cost savings from: <ul style="list-style-type: none"> • The use of mid-level care providers • The use of technology
Physician specialists	Potential increase in clinic referrals
Nurses (NPs, APNs) and PAs	Potential increases in: <ul style="list-style-type: none"> • Employment • Independent practice
Hospitals (nonprofit, for profit, academic)	Subcontract for retail health clinics Enables increased focus on primary care business Pairs appropriate resources and type of care to the appropriate providers
Emergency departments	Decreased emergency department overcrowding for unnecessary emergency department visits (i.e. minor acute conditions)

Adapted from Malvey & Fottler (2006)

On the other hand, hospital systems stand to lose if a large proportion of their revenue stems from treating minor illnesses that can also be treated at retail clinics. In other words, the decrease in minor care visits within hospital systems due to the increased use of retail clinics may result in a decline in total revenue for hospital systems. Other stakeholders considered losers include PCPs, ambulatory clinics, and urgent care sites (Malvey and Fottler, 2006). According to Malvey and Fottler (2006), these stakeholders are considered losers due to the potential increased use of cheaper care providers, potential decline of their services in the healthcare arena, and the increased competition in providing accessible and affordable healthcare services. Ultimately, the expansion of the retail clinic industry has the potential to affect several healthcare stakeholders, both positively and negatively.

Table 3

The Expansion of Retail Health Clinics: Losers	
Stakeholder	Rationale
Primary care physicians	Increased use of less-costly mid-level care providers to replace physician care for minor acute conditions
Hospitals (nonprofit, for profit, academic)	Dependent on the amount of revenue stemming from minor care
Ambulatory care clinics (non-hospital affiliated)	Potential to disappear from the healthcare industry due to increased competition from retail health clinics
Urgent care sites	Competition from: <ul style="list-style-type: none"> • Retail clinics who provide more affordable and convenient care • Less crowded emergency departments due to increased access

Adapted from Malvey & Fottler (2006)

Chapter 8

Limitations

Sub-Chapter 1: Limitations of the retail clinic industry

Due to the newness of the retail clinic industry, there exists a lack of published literature and empirical studies to make definitive conclusions about the sustainability and viability of the industry. Ultimately, there is a need for more empirical studies to form deductions that are more concrete. The majority of the literature included qualitative research and industry overviews. The lack of existing literature, particularly quantitative research, hinders the ability to make conclusions; however, the existing research supplied cogent and lucid material to begin the thorough analysis of the retail clinic model.

Sub-Chapter 2: Limitations of the research

Another limitation exists with respect to the literature selected for analysis. For example, articles were selected from only two databases. To improve the validity and breadth of this review, articles could be analyzed from more databases, more articles could be included in this literature review, and more searches could have been performed with additional search terms.

Chapter 9

Future Considerations

Based on the stated limitations, several opportunities exist for future research with respect to retail health clinics in the areas of access, cost, and quality.

Sub-Chapter 1: Access

Gaps in the literature are apparent, and the first gap is with respect to the effect of retail clinics on access to care. More specifically, future analysis may include the impact of access to care for non-insured individuals and those lacking a PCP relationship, the impact on referrals, and the extent to which unnecessary emergency department visits are reduced from the use of retail clinics (Laws & Scott, 2008).

According to the literature, the demographics of the primary clinic users suggest that clinic consumers are able to properly self-triage. However, there is limited research related to this topic; therefore, more extensive analyses on self-triage among clinic consumers is another area for future study (Weinick et al., 2010). In conjunction with a clinic consumer's ability to self-triage, future research may also investigate the other care venues that the patient may have contemplated before seeking clinic care and their reasoning behind choosing a retail clinic (Mehrotra et al., 2008). Concerning the patient mix, Wilson et al. (2010) reported a need for studies determining the demographic make-up of patients in primary care locations as healthier patients seek clinic care for periodic, minor services.

Another understudied topic related to retail health clinics is with respect to the induced-demand concern, which is defined as patients converting from self-care to clinic-care. Retail clinics have spurred concern regarding the use, or overuse, of their services. Clinic owners argue that the convenience of retail clinics has the potential to augment care, not replace it. Therefore, Ashwood et al. (2011) assert that future exploration may assess the induced-demand concern to determine if retail clinics are increasing total healthcare visits or replacing emergency department or PCP visits. In fact, these same authors conducted a recent study to assess whether retail health clinics were increasing utilization of care (Ashwood, Gaynor, Setodji, Reid, Weber, & Mehrotra, 2016). Regarding these study findings, new utilization accounted for approximately 60 percent of retail clinic visits for low-acuity illnesses; thus, substitution accounted for approximately 40 percent of retail clinic visits for low-acuity illnesses. As a result, overall healthcare spending increased due to the majority of retail clinic visits consisting of new utilization. More specifically, retail clinic use for low-acuity illnesses resulted in an increase in spending of 21 percent, or \$14 more per person, annually (Ashwood et al., 2016). These study findings contradict the previously mentioned study by Sussman et al. (2013), which found that retail clinic convenience was not increasing utilization or healthcare costs. The findings by Ashwood et al. (2016) that retail clinics create new utilization for healthcare services suggests that retail health clinics add value to individuals who may not have received care at all. Moreover, the increase in new utilization also suggests that retail clinics are catering to the needs of individuals without a primary source of care (Ashwood et al., 2016). Future studies may expand this study to increase the validity of the results.

Sub-Chapter 2: Cost

According to the existing literature, the cost per visit at retail clinics is lower than other care settings, such as emergency departments, urgent care sites, and primary care offices. Future studies may expand on the existing studies and identify cost differences and savings for more illnesses treated at retail health clinics. Additionally, more research is needed on the best practices for retail health clinics. According to the literature, retail clinics need to surpass several challenges, both operational and strategic, in order to increase patient volume and clinic profitability. Therefore, more research is needed on practices and strategies that have been successful for clinics so they can be disseminated to other clinics.

Sub-Chapter 3: Quality

Regarding future studies with respect to retail health clinics and quality, further examination may occur among clinic care providers and their conformity to evidence-based protocols in relation to the same types of providers practicing in non-clinic settings (Laws & Scott, 2008). In terms of prevention, the competency of retail clinics in providing preventive services is questioned among stakeholders, particularly physicians. Thus, future research may close this gap regarding the effect of retail clinics in providing preventive care (Mehrotra et al., 2008; Thygeson et al., 2008). Additionally, the existing literature consists largely of short-term studies. Expanding these studies and collecting data over a longer duration of time may increase the validity and provide more conclusive findings (Reid et al., 2012).

Care coordination is a controversial topic among industry stakeholders, and it is a primary argument addressed by physicians. The study by Moore, Dolansky, Hudak, and

Kenneley (2014) examined the coordination of care amid healthcare homes and retail clinics.

According to the authors, although care coordination exists between these venues, the coordination could be enhanced. Subsequently, the authors assert that the AHRQ Framework for Care Coordination Measurement should be implemented in a future study to assess care coordination among several retail clinics in order to improve the legitimacy of the present study. The AHRQ measurement may also be used to identify the reasons behind patients unwilling to share their clinic records with healthcare homes, the most successful measures to connect patients with healthcare homes, and the use of clinic records by healthcare homes (Moore et al., 2014). Evidently, there are a myriad of topics for future study related to retail health clinics to increase the validity of the existing literature.

Chapter 10

Conclusion

To date, the United States contains approximately 2,000 retail health clinics, and these clinics treat about six million patients annually (Ashwood et al., 2016). Retail clinics are designed to offer a limited scope of care for minor acute conditions and preventive screening. Additionally, these clinics advertise convenient, accessible, and affordable healthcare. Despite the growth of the retail clinic industry, controversy surrounds the care received and the economic viability of these clinics. Findings from this literature review indicate that while clinics provide care at lower costs compared to other care venues, such as emergency departments, physician offices, and urgent care centers, these clinics are not necessarily increasing access to care for uninsured, underserved, and rural populations. Essentially, retail clinics are improving access, cost, and quality for one type of patient, defined by affluence and living in an urban setting, but not necessarily for the other underserved, uninsured, and rural populations. Proximity and convenience stimulate clinic use; therefore, these underserved populations are not taking advantage of the reduced retail clinic costs and convenient care provided by retail clinics.

The primary retail clinic users are younger, healthier adults, and these patient demographics are also found in emergency departments. Given the similar demographic make-up of retail clinic and emergency department users, retail clinics have the potential to act as a safety-net for patients currently utilizing emergency department care, as well as for individuals through their transitions of care (Mehrotra et al., 2008). The dynamic nature of the healthcare arena coupled with the recent trend of the retail clinic industry necessitates further research regarding

the sustainability of this industry. Moreover, future research is needed within all three themes of this literature review: access, cost, and quality. For example, future research is needed to confirm whether retail clinics are increasing access to care for underserved, rural, and uninsured individuals, or if they are purely catering to wealthier and insured populations. Additionally, the literature lacks studies on retail clinic best practices. Retail clinics experience profitability and patient volume challenges, among others; therefore, future research may study retail clinics that have been successful, as well as the operational timelines and marketing initiatives that have been successful. In addition, there exists uncertainty and negative perceptions with retail clinic quality of care among both patients and physicians; however, the existing literature indicates that the quality of care at these clinics is not compromised. Despite these quality findings, there is limited empirical research on retail clinic quality of care, and future studies may expand the quality literature in order to increase the validity of the existing studies.

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ACADEMIC VITA

SAMANTHA J. DIMEO

717.471.1580
samanthajdimeo@gmail.com

EDUCATION

The Pennsylvania State University, Schreyer Honors College **University Park, PA**
College of Health and Human Development | Bachelor of Science in Health Policy and Administration
College of Liberal Arts | Minors in Spanish & Information Sciences and Technology

RESEARCH EXPERIENCE

Health Policy and Administration Research **University Park, PA**
Research Assistant *May 2015 – Present*

- Researched and reviewed more than 50 scholarly articles pertaining to retail health clinics
- Structured 30 hours weekly dedicated to searching and summarizing scholarly sources to develop the main categories and subcategories related to retail health clinics

College of Health and Human Development Summer 2015 Undergraduate Research Award **University Park, PA**
John T. and Paige S. Smith Endowment for Undergraduate Research *May 2015 – Sep 2015*

- Analyzed employee engagement among support service workers in both urban and rural hospitals in PA
- Combined two independent data sets from national studies that examined work force issues related to hospital support service employees
- Performed both hierarchical and binary logistic regressions using the SPSS statistical analysis software

LEADERSHIP EXPERIENCE

Health Policy and Administration Undergraduate Committee/Stanley P. Mayers Endowed Lecture **University Park, PA**
Undergraduate Representative *Sep 2014 – Present*

- Reviewed the Health Policy and Administration undergraduate curriculum, programs, and events in bi-weekly meetings with 10 undergraduate, graduate, and world campus faculty members in the department
- Coordinated the annual Stanley P. Mayers Endowed Lecture, a program designed to stay informed on industry changes, for an audience of physicians, administrators, healthcare professionals, professors, and students
- Judged the Health Policy and Administration Senior Showcase Poster Competition

Penn State Health Policy and Administration Club **University Park, PA**
Executive Board | Vice President & Secretary Chair *Sep 2013 – Present*

- Obtained corporate sponsorship with Cigna to cover club expenses in regard to events, meetings, and trips
- Partnered with Cigna's Operations Leadership Program to coordinate professional networking events
- Increased active member status by 30 percent by creating additional networking events, coordinating and combining events with faculty and other clubs, and organizing more professional events with guest speakers

Health Policy & Administration Peer Tutor **University Park, PA**
Peer Tutor, Faculty Recommended *Jan 2016 – Present*

- Advised students on assignments for a healthcare professional development course for 8 hours per week
- Disseminated relevant course materials and updates to students through a blog and social media account

Penn State IFC/Panhellenic Dance MaraTHON **University Park, PA**
Finance Committee Member | Administrator *Sep 2013 – Present*

- Provided support for children and families during THON 2014 and 2015, while assisting in the raising of \$13.0 million for research and awareness for pediatric cancer and the Four Diamonds Fund
- Counted, recorded, and processed all monetary donations for the Four Diamonds Fund during weekly meetings and serviced 1,500 checks per meeting
- Supported committee of 30 members by documenting weekly meetings and disseminating to members

Alpha Kappa Psi Professional Co-Ed Business Fraternity

Inductee Class Treasurer | Fundraising Co-Chair

University Park, PA

Feb 2015 – Present

- Achieved financial fundraising goal of \$1,530 through intensive planning, coordinating, and selling of merchandise while maintaining revenues for the fraternity and contributing to the yearly budget
- Strengthened professional, network, and interview skills through 120 brother interviews, resume workshops, professional presentations, and information sessions with members of the fraternity
- Collaborated with an inductee class of 18 in a team setting to orchestrate and host professional, philanthropic, and social events for the business fraternity and maintained organization through weekly professional meetings

Penn State Associate Dean's Advisory Board

Committee Member

University Park, PA

Sep 2014 – Sep 2015

- Liaised between students and the Associate Dean of the College of Health & Human Development to ensure student concerns and successes in the college were recognized and addressed
- Communicated ideas to improve aspects of the college and created a website to inform incoming freshman and prospective students regarding the different majors and opportunities offered in the college

HONORS & SKILLS

- Health and Human Development Honors Society, Dean's List: 5/5 Semesters
- Working knowledge in: SPSS, SAS, and Microsoft Office Products (Excel, PPT, Word)

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