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Barriers to Care Among Uninsured Patients with Chronic Disease in a Free Clinic: A Quantitative Study

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Background and Significance

According to the 2017 U.S. Census Bureau there were 28.5 million uninsured people (2018). It is postulated these people have fallen between the cracks and do not meet requirements for Centers for Medicare and Medicaid Services (CMS) and cannot afford insurance provided under the Affordable Care Act (ACA). The most common chronic diseases for uninsured patients are diabetes, cardiovascular disease, end-stage renal disease, HIV infection, and mental illness (Woolhandler & Himmelstein, 2017).

It is well established that uninsured patients tend not to use primary care and as a result end up requiring the use of hospital urgent or emergency departments for chronic condition exacerbations. Moreover, these patients often are unable to pay for care received. In 1986 the Emergency Medical Treatment and Labor Act (EMTALA) was enacted to require emergency departments to stabilize and treat patients regardless of their insurance status or ability to pay. As such, emergency departments have become safety nets for the uninsured.

The American Hospital Association (2018) reported a staggering 38.4 billion dollars for uncompensated care. The financial losses of uncompensated care tend to be redistributed driving up the cost of care for everyone. But the conundrum for uncompensated healthcare is that it is relatively inelastic, growing larger and never shrinking. A critical element of uncompensated care is that while the patient does not pay, it does remain part of the patient's medical debt profile, and more importantly it is considered bad debt. The National Center for Chronic Disease Prevention and Health Promotion (2019) estimated that 90% of the nation's $3.3 trillion annual healthcare costs are targeted to those with chronic diseases and mental illness.

There are fiscal mechanisms in place such as the Medicaid Disproportionate Share Hospital Payments (DSH) and Medicaid expansion; nonetheless these monies recoup only a fraction of that cost. Additionally, uncompensated care has wide-spread ramifications such as increased healthcare cost burden, inability to renovate with new technologies, and increased risk of financial instability that may lead to healthcare professional lay-offs or more radically, hospital foreclosure. The fall out, for uninsured, with a hospital closure is the challenge of where to access care.

The most cited barrier to care among all research is cost. A study completed in four free clinics in Syracuse, New York determined that 43% of the 229 respondents could not afford health insurance, with 55% of respondents indicating they are employed (Arvisais-Anhalt et al., 2018). This study was limited by the use of novel, unvalidated questions in its survey, as well as uneven distribution of surveys across the clinics sampled.

In a qualitative research study with 138 female cancer patients, themes for nonadherence to screening primary care included lack of knowledge of resources for free or low-cost care, denial or fear of cancer diagnosis, competing obligations and embarrassment (Nonzee et al., 2015). This study chose its survey sites based on serving a primarily minority, uninsured or underinsured population with 46% of respondents being African American and 35% being Hispanic. Limitations included a population limited to those who were currently seeking care and from urban settings (Nonzee et al., 2015).

The Affordable Care Act was approved by congress to decrease the number of uninsured people living in the United States. There were an estimated 44 million people prior to 2013 who did not have healthcare coverage. This has decreased to 28.5 million in 2018. These patients report the primary reason they do not have health insurance is that the cost is too high. Many who do not have health insurance have lost their job or changed employers (22%), lost Medicaid (11%), had a marital status change (11%) or work for employers who do not offer or are not eligible for coverage (9%). Other gaps in coverage result from persons earning too much to qualify for Medicaid but not enough to afford marketplace coverage (Kaiser 2018). Two thirds of all uninsured persons earn less than 200% of the federal poverty level. These persons also tend to work for smaller sized farms, nonunionized firms, and nonmanufacturing sectors (Woolhandler & Himmelstein 2017). Researchers in one 2016 study determined that 62% of a population (n=74) that used a free clinic, actively sought health insurance. Those patients cited cost of coverage as their primary reason for being uninsured. Incomes of these patients ranged from 0 to 425% of federal poverty level and 80% of respondents were employed (Desmond et al., 2016).

More recently, in March of 2020, the United States Bureau of Labor Statistics reported an increase in unemployment rate to 4.4%. These changes reflect the effects of the coronavirus outbreak and the efforts to contain it. Jobs in the hospitality and entertainment industries were hardest hit with other noticeable declines in the healthcare industry, business services, retail trade and construction (Bureau of Labor Statistics 2020). The unemployment rate increased by 0.9 percentage point which is the largest one month increase since January of 1975. In terms of numbers, unemployed persons went from 1.4 million to 7.1 million. Additionally, the number of part time employed persons who preferred full-time employment increased by 1.4 million during the month of March. It is yet unknown how deep of an impact this has on the uninsured population as well as the health care industry as a whole. Additionally, the data collection period for these numbers ended March 12th. It is expected that unemployment rates, and subsequently uninsured rates, will continue to grow over the next several months as the country enacts measures to slow the spread of the virus.

While uncompensated care remains a national fiscal concern, there is one community in the Southeastern United States that is taking steps and providing access to free healthcare in an outpatient clinic. This Southeastern United States community reported almost 27% of its population under the age of 65 are living without health insurance. Twenty-four percent of the population of that same town live below the national poverty line. The population is 50.8% Hispanic, 28.2% Non-Hispanic White, and 7.6% African American or Black, with the remainder divided among other races (US Census 2017).

Despite free healthcare services, there continue to be challenges, to patient care. Patients demonstrate irregular follow up and treatment plan adherence. Hence, for this scholarly project, the aim was to better understand why a group of patients in the Southeastern United States were non-compliant with access to free healthcare services, identify specific barriers, and to determine chronic condition severity.

The Problem

In the Southeastern United States, there is a large population of uninsured patients who have limited to no access to care. A free clinic was established in 2005 to improve this access and according to clinic data, the patient population is 60% female and 40% male with approximately 200 patients visits per month. The most common chronic illnesses treated in this clinic include hypertension (33% of patient population), diabetes mellitus (21%), chronic obstructive pulmonary disease (COPD) (18% of population), and hyperlipidemia (10%).

Clinical Purpose and Question

The purpose of this scholarly paper is to explore the barriers faced by uninsured persons utilizing a free healthcare clinic to treat chronic illnesses and to correlate the severity of those barriers to achieving access to care. The scholarly project findings were analyzed and will be used to promote understanding of what factors are true barriers and what are simply inconveniences. By discovering the barriers, the clinic and community will be in a better position to make decisions regarding current healthcare services offered, advocate for new services that would better meet healthcare concerns, and to make political recommendations at the local, state, and federal levels.

The question that researchers sought to answer was: Among uninsured persons who utilize a free clinic in the Southeastern United States to manage chronic illness, what are the perceived barriers to receiving needed healthcare? In order to answer this question, the researcher developed three hypotheses.

Hypothesis one. Facing more barriers to healthcare services results in a lower probability of achieving health care access and getting needed services.

Hypothesis two. Having barriers that are more severe strongly correlates with not achieving access to needed care.

Hypothesis three. Some barriers more strongly correlate with achieved access to care. There is a relationship between barriers to care and achieved access to care.

Theoretical Framework

This study will utilize Southern Adventist University's (SAU) theoretical framework for nursing and the Starfield Model of Social Influences on Individual's Health to establish a foundation on which to build the research. The SAU framework describes that by the grace of God providers can have an impact on the health and environment of individuals, families, and communities. Patient care is made up of equal parts caring, connecting, and empowering. In reference to the clinical question, by caring for uninsured patients who might not otherwise receive care and connecting with them, a plan is developed for empowering those patients with the ability obtain care for chronic disease and will improve their quality of life. These tasks take place with an understanding of how evidence-based practice informs the best care. Cultural competence will be necessary as many of these patients come from a variety of cultural and socioeconomic backgrounds which differ from those of the primary investigator. Health promotion behaviors are highlighted during the survey process to encourage even slight changes and reinforce education provided by the clinic. Professionalism is an integral part of every aspect of the project. Finally, an understanding of teamwork, and collaborative, patient-centered care will guide the researcher to obtain the highest quality data through further understanding of the clinic's assets and limitations as well as the concerns and needs of the patients themselves.

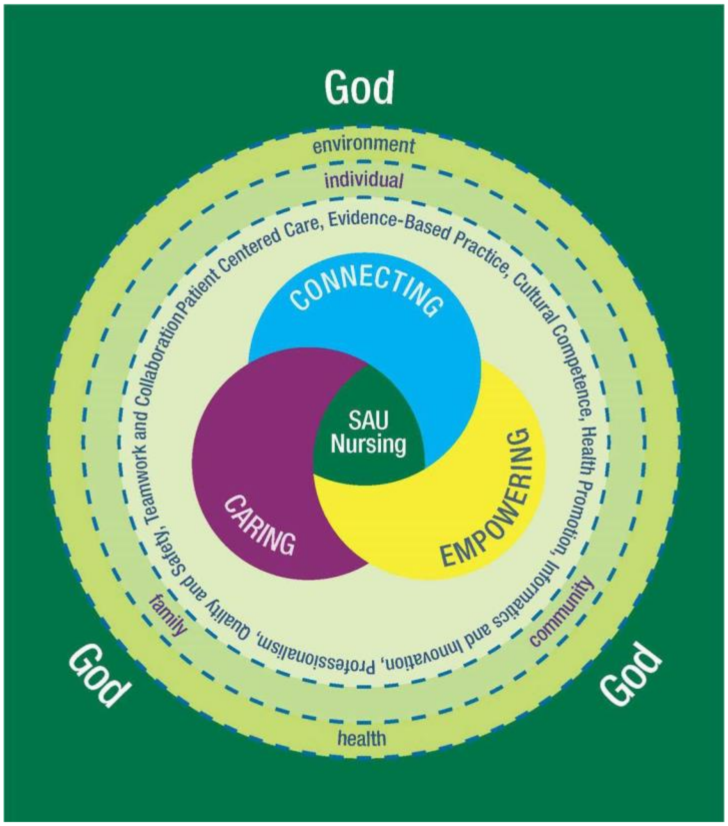


Figure 1. SAU Theoretical Framework for Nursing (2019). Southern Adventist University Nursing Handbook retrieved from at https://www.southern.edu/academics/academic-sites/nursing/docs/ ugstudenthndbk2019-20.pdf

The Starfield Model is used to measure quality of care, access to care, or capacity, and total cost of care in a primary care setting. In the model, comprehensive primary care is the base of a sustainable health care system which optimizes health outcomes and meets patient and public expectations. In this model, the goal of the primary care team is to improve quality, increase access to care, and reduce the total cost of care, thereby becoming more efficient while serving more people. The foundation of the model is support of the patient provider relationship, to collect data, to encourage excellence in performance, and to promote stewardship of health system resources beyond the primary care team. The goals of the model are to increase the value of the health care dollar, improve patient outcomes, provide greater autonomy for providers, and to gather data to provide evidence for investing in health outcomes (Starfield 2006).

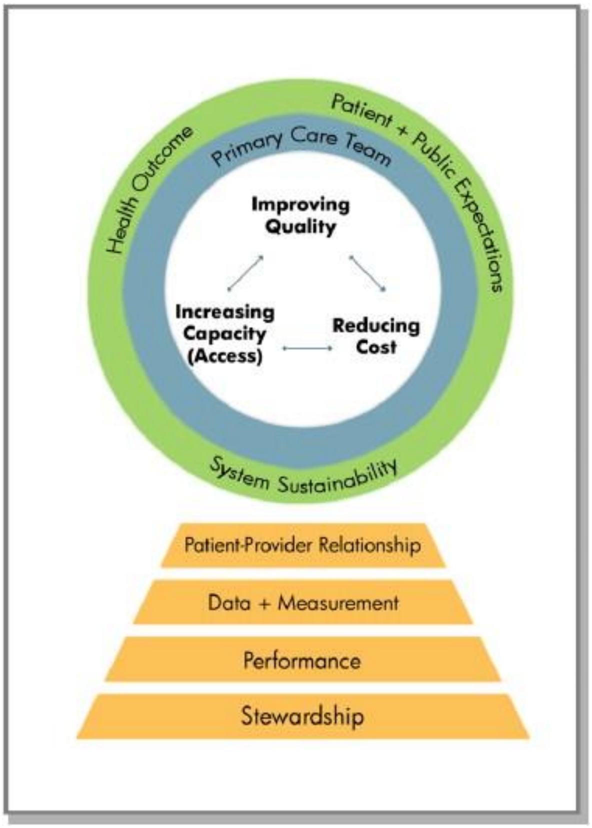
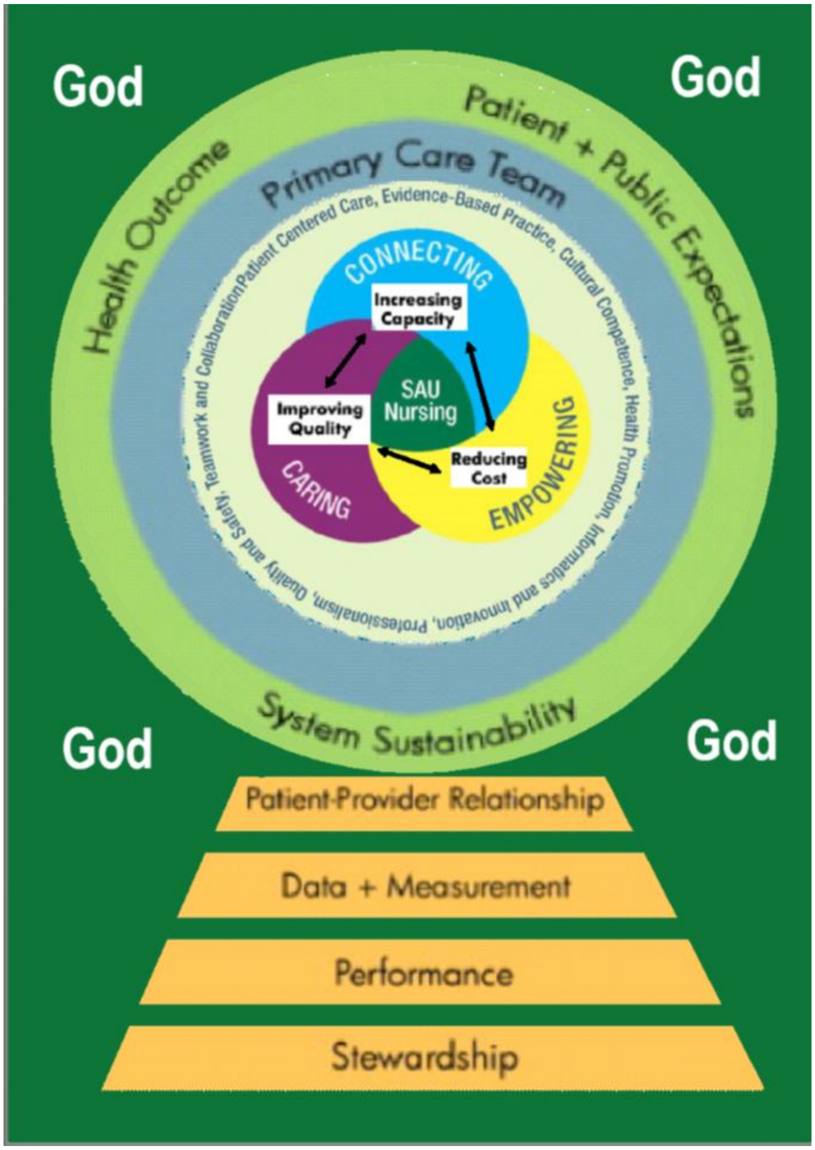


Figure 2. Starfield Model retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0840470414000970

Both the SAU Theoretical Framework for nursing and the Starfield Model function to support improving quality of health care through research and collection of data, and by managing both real and fiscal assets to improve patient outcomes. The ultimate goal of this research is to understand the barriers to care perceived by patients in a free clinic. By grounding this research in the SAU Theoretical Framework for Nursing and the Starfield Model, those barriers will be determined and ultimately education and policy changes may occur to alleviate those barriers.



Organization of the Remainder of This Study

The remainder of this scholarly project will contain four chapters. Chapter two will discuss the information discovered during the literature review. Chapter three will discuss the methodology of this scholarly project. This portion will include the purpose, objectives, and design. It will explain the target population and recruitment details, inclusion and exclusion criteria, and human subject protections. It will also discuss both instruments and measures, subject eligibility, and the Institutional Review Board (IRB) approval and resources used. Chapter four will describe the results analysis. This will include demographics, key terms and other variables, a discussion of project questions and hypotheses. It will conclude with a discussion of unintended consequences. Chapter five will summarize the outcomes, discuss limitations, bias or errors, factors affecting the study results, and discuss implications for future projects and research and implications for current practice and education.

Chapter Two: Review of Literature

This chapter will serve as an introduction to the data discovered during the literature review of barriers to receipt of healthcare, including both qualitative and quantitative studies, and will discuss the gaps found in current evidence. Google Scholar and CINAHL complete were used to find background evidence for this project. Article publication dates ranged from 2011 to 2019. Key words used included *adherence to treatment*, *access to care*, and *barriers to care*. Articles were limited to scholarly journal publications with populations in the United States in order to be more manageably reviewed.

General Barriers to Care

Since the enactment of the Affordable Care Act (ACA), access to medical insurance has improved for a large portion United States citizens. According to the Kaiser Family Foundation nearly 20 million people gained healthcare coverage by 2016, after passage of the ACA (Garfield, Orgera, & Damico 2019). However, there are groups of people who are still unable to obtain insurance and are limited in the care they can obtain. Research has identified some barriers to medical care among specific types of patients.

Researchers explored data from the 2012 LIVESTRONG survey using a multivariate logistic regression to identify risk factors associated with receipt of medical care among adult cancer survivors under 65 years of age living in the United States. Factors examined included sociodemographic data, financial hardship, medical debt, caregiver status and cancer-related variables. Respondents with financial hardship ($p<0.001$), had public insurance or were uninsured ($p<0.001$), and were unemployed or made a work change at diagnosis ($p=0.015$) were statistically more likely to delay medically necessary care. Patients who had financial hardships and incurred debt of greater than $10,000 were more than three times as likely to delay necessary care (Financial hardship w/≥ $10,000 debt = 3.41, 95% CI 2.69–4.33, p < 0.001). Survivors who were uninsured were more likely to delay necessary care, compared to those with private insurance (RR = 1.70, 95%CI 1.27–2.28, p = 0.001). Moreover, patients who did not have a caregiver were at a greater likelihood of not receiving necessary care (RR = 1.44, 95% CI 1.11–1.87, p = 0.008) compared to survivors with a caregiver. Finally, survivors who lacked help understanding their health insurance or medical bills were more likely to lack necessary medical care (RR = 2.17, 95% CI 1.68–2.81, p < 0.001) compared to those who had help (2018). This study was broad and examined data from over 4000 respondents. However, one major limitation noted was recall bias from respondents as information was self-reported (Banegas et al., 2018).

In a study completed by Miller-Matero et al, (2016) factors for missing clinic appointments were evaluated. These included demographics, psychiatric symptoms, cognitive functioning and literacy status. Researchers conducted a chart review on 147 patients who were seen by a primary care psychologist over a six-month period. The number of total appointments scheduled ranged from 2 to 18 per patient, with an average of 32.50 (SD = 27.87). The number of missed appointments ranged from 0 to 14 per patient, with an average of 4.51 (SD = 5.51). The average rate of missed appointments was 15.38% (SD = 14.36). The prevalence of missed appointments was normally distributed (skewness = 1.16, kurtosis = 1.56). In univariate analyses, factors related to higher rates of missed appointments included younger age (p =0 .03), lower income (p=0 .05), probable depression (p = .05), sleep difficulty (p =0 .05) and limited reading ability (p =0 .003). Further evaluation via multivariate analysis identified probable depression (p=0.02) and limited reading ability (p=0.003) as independent predictors of missed clinic appointments. Limitations to this study listed by researchers, included introduced bias as data were only collected on patients referred for psychological evaluation and many patients might have been referred for depression compared to other diagnoses. Finally, researchers discussed that the results indicated correlation only and not true causation; that missed appointments might be related to other factors not assessed by the study (Miller-Matero et al., 2016).

These two studies evaluated very different populations via differing methods and identified a variety of barriers to adequate medical care. In the case of Banegas et al. (2018), survey respondents had a previous diagnosis of cancer whereas Miller-Matero et al.(2016), completed chart reviews of patients in a psychiatric primary care practice. Neither study looked at patients in a general primary care practice. While both studies stated they evaluated socioeconomic status, only Banegas et al. (2018) identified factors related to debt and finances as barriers to medical care. Miller-Matero (2016) only evaluated lack of medical care in the form of missed appointments whereas Banegas (2018) identified respondents who missed appointments, failed to have follow up testing, and missed treatment deemed necessary by medical professionals.

Barriers to care among Hispanic populations. A significant portion of current research focuses on Hispanic populations. This could be related to the changing demographics of the United States or current political debates. This area is of particular interest to the author as it is a growing demographic in the area of the clinic studied.

One literature review completed in 2015 described barriers to care among undocumented immigrants in multiple countries. Researchers evaluated 66 articles and determined barriers to care among Hispanic populations included limited access to insurance and requirements to show documentation to get health care services. Other listed barriers included high cost, discrimination, bureaucracy, fear of deportation and communication difficulties. Finally, shame and stigma were listed as barriers to care as patients did not wish to be burdens on society (Hacker et al., 2015).

A further study discussed the major barriers to care among Hispanics being lack of cultural sensitivity, health literacy, and shortage of Hispanic health care providers (Velasco-Mondragon et al., 2016). Dominguez et al (2015) reported that according to United States census data 15.5% of Hispanics reported absence of needed medical care because of cost concerns.

Researchers used a qualitative interview design to identify barriers and facilitators to care among uninsured Latina immigrants. Participants were recruited via purposive sampling method and included a sample of thirty uninsured immigrants in South Carolina. The findings determined that the first barrier was simply not having enough money to cover the cost of surgeries, routine office visits, nor medications (Luque et al., 2018). Participants ranged in age from 26 to 63 and were living in the US an average of 14 years (range from 3 to 27 years). Participants reported a lack of formal education, low household incomes and a lack of English proficiency. The study went on to describe how many of these patients did not wish to be a liability on the government, so when free care was not available, they did not have care (Luque et al., 2018). Identified themes were similar to other studies and included high cost of care/lack of insurance, communication difficulty related to Spanish only or English as a second language, lack of knowledge about the medical system, and preference for using alternative methods for healing (Velasco-Mondragon et al 2016, Dominguez et al., 2015, Luque et al., 2018).

A second qualitative study of 70 Hispanic respondents described unique barriers to care for this population included concerns that using health services would inhibit future legal entry into the United States and that using medical services increased the likelihood of deportation

(Joseph, 2017). The original interviews, conducted between 2012 and 2016, evaluated the health care experience from multiple points of view to attempt to establish a complete picture. One hundred fifty three interviews were conducted of immigrants, health care professionals and immigrant and health advocacy organization employees. Researchers used purposive snowball sampling and imported each interview into NVivo software to develop a list of codes with one- to three-word phrases. These phrases described how participants felt documentation status influenced health care experience. Interviews were analyzed in the language in which they were initially conducted to minimize the loss of nuances in translation. Themes identified included perceptions that the primary inhibitor to immigrants' access to health care is public policy, use of local care services may impede legalization or lead to deportation, and increased immigration enforcement indirectly affects immigrants' health due to delay in or absence of care. The predominating limiter of this study was the small nonrandom sample size which was related to the difficulty of identifying members of the at-risk population (Joseph, 2017).

Finally, a qualitative study completed in California noted that barriers were in the form of structural (lack of information or insurance and long wait times), cultural (embarrassment and lack of understanding), and provider-related (disrespectful communication and inconsistent providers). Researchers used bilingual interpreters to conduct one-on-one interviews with 44 indigenous women, average age of 40 with range of 21-73 years, who were recruited at parks, clinics, school-based sites, and community meetings. All interviews were audiotaped and then translated and typed in English. The English transcripts were coded to identify structural, cultural, and provider-related barriers to health care utilization. The researchers did not identify the method used for coding the interviews. The most often identified barrier was a lack of understanding the English language. This lack of English language proficiency impacted patient's understanding of follow up appointments, taking medications, and other means of improving quality of life (Maxwell et al., 2018). It was also noted in the same study that there were cultural barriers among Hispanic populations where patients were embarrassed to ask questions or express fear of procedures which would lead to better understanding (Maxwell et al., 2018). Limitations identified by the researchers included the inability to ask participants about their immigration status. It was felt that this would significantly impair recruitment. Additionally, it is possible that the data may not be generalizable to the population as recruiters did not keep record of refusals to participate in the study . Conversely to the study conducted by Joseph in 2017, Maxwell et al., (2018) did not code their interviews in the original language. This might have introduced bias or led to a loss of nuance in the responses.

Both qualitative and quantitative studies involving Hispanic populations elucidated similar barriers to care. These barriers ranged from language, communication, knowledge deficits, cost, and healthcare beliefs. While barriers of language, communication, and healthcare beliefs may be unique to Hispanic populations, knowledge deficits and cost are universal.

Barriers to Care in Free Clinics

There was limited research about barriers to care in free clinics. This population is of interest because it removes the predominating factor of cost of care and patient's inability to pay. Many studies completed evaluated populations of diabetic patients as they are a large population in need of chronic care.

In a qualitative study of over 600 participants, respondents submitted an answer to a single open-ended question about their perceptions of care received in a free clinic. The clinic provides medical care to uninsured individuals who have a household income below 150% of the federal poverty level. Two-thirds of the patients served by the clinic are between the ages of 31 and 64 while 54% of the patient's reported being unemployed. Additionally, more than half of all participants described having a high school degree or less. The single question evaluated by this study was included at the end of three consecutive surveys administered between January and December of 2017. Researchers used Creswell and Creswell procedure to analyze the data based on themes. Three authors then reviewed the data to develop the general sense of meaning of the data and two authors separately conducted initial coding based on themes. All authors checked accuracy and consistency of results. It was determined that while patients were grateful for services at free clinics, patients felt they did not receive the best possible care due to poor continuity in providers and lack of education on medications and lifestyle changes. Limitations included limited population diversity as the majority of respondents were female and Latina at one free clinic, thus results may not be generalizable. The researchers highlighted that because free clinics utilize volunteer providers there can be lack of continuity if documentation is not comprehensive (Juarez et al., 2018).

In a retrospective cohort study completed in 2017, a group of 151 diabetic patients referred to a collaborative care team at a safety-net primary care clinic were evaluated for characteristics that correlated with nonengagement in care. The definition of engagement in care was participating in more than 2 visits with the collaborative care team over an 18-month period. Of those referred, 45% did not engage in the program. Researchers used a variety of statistical analyses including Chi Squared for categorical data and independent group t tests for testing data with mean values to evaluate differences in engagement of participants. Those with higher baseline A1C were less likely to be engaged (10.9% nonengaged vs 10.3% engaged, $p=0.04$). Researchers also determined that patients who had comorbid chronic pain were less likely to engage (OR 4.63; 95% CI, 1.13-18.99, $p=0.03$) as were females (OR 2.51, 95%CI 1.21-5.21;

p=0.01). Researchers did not find statistically significant differences with respect to age, race/ethnicity, type of insurance or homelessness between engaged and nonengaged participants. Patients who did not engage were less likely to have a diagnosis of major depressive disorder (13.2% vs 28.9%, P = .03), anxiety disorder (16.2% vs 38.6%, P = .003), or any depression diagnosis (major depressive disorder, dysthymia, or depression unspecified; 39.7% nonengaged vs 61.4% engaged, P = .009) compared with those who did engage (Belyeu et al., 2017). This study was limited to a single clinical site and the measure of engagement was not a level previously validated by literature (Belyeu et al., 2017).

In a study completed at University of Alabama at Birmingham's PATH Clinic, researchers hoped to identify what factors led to patients becoming lost to follow-up at a free clinic for uncontrolled diabetes. The clinic identified that 25% of diabetic patients were lost to follow up. To evaluate why, researchers completed a mixed methods study via telephone interview of patients who had been to at least one visit and subsequently dropped out or discontinued care. Of the 62 patients who discontinued care, 17 met the inclusion criteria for the study (reachable by phone, uninsured, English speaking). An open coding process was used by two separate reviewers and themes were compared and reconciled then fit into the Andersen-Aday model. The method used was Strauss and Corbin's approach of breaking down, examining, comparing conceptualizing and categorizing data into themes. Forty-seven percent (n=8) of participants felt that more could have been done to help them keep their appointments and 65% (n=11) felt that a phone call reminder would have been useful. Although the statistics reported in the study were limited, researchers identified reasons for loss to follow up status as patients forgetting appointments and lack of transportation. Researchers identified limitations as having to rely on administrative data and variables included in database for quantitative analysis and a small sample size due to inability to recruit participants by phone (Buys, K, Selleck, & Buys, D., 2018).

A clinic that provides comprehensive medical services to low-income, uninsured residents of Chicago suburbs was a site for research evaluating healthcare utilization, satisfaction, and health status outcomes. A telephone survey was conducted in 2011-2012 and two groups were compared, those who had been established in the program for at least one year (n=135) and those who were newly enrolled (n=158). Among 158 newly enrolled clinic patients, 78.5% listed no money for cost or copay for visits as the reason for delaying medical care while only 21.3% of the established patients listed the same reason ($p<0.0001$). Additionally, 28.5% of newly enrolled compared to 23.8% listed having to wait too long to see a provider, and another 17.7% vs 3.1% listed clinic hours of operation being inconvenient for them ($p<0.0001$). Of new program enrollees, 30.5% compared to 14.6% of established participants stated they did not have transportation ($p<0.05$). It is of note the “new enrollees” were asked questions based on the last year, when they were not receiving care from the clinic as the established participants were. A limitation in this study was group selection bias and some patients were insured during part of the year prior but had previously been uninsured patients of the program (Feinglass et al, 2014).

A thorough review of the research identified barriers such as cost of care, lack of understanding of medical terminology, and simply forgetting appointments. To improve on some of those barriers, researchers identified strategies to improve care compliance.

Strategies to Improve Care Compliance

To improve metabolic disease among a cohort of mostly Hispanic, low income patients at a free clinic, researchers investigated the use of the “Vida Sana” or healthy life program. The program used low literacy; language appropriate materials taught by trained peers in a setting that provided opportunity for social engagement. Sixty-five percent of the 192 participants completed 6 out of 8 sessions over a 12-month period. At the end of that period 90% of participants showed increased health literacy and 60% had decreased risk factors for metabolic syndrome (Buckley et al., 2015). This research was limited in the statistical analysis of its outcomes. Only percentages of patients reporting improved outcomes were included with no significance values based on group comparisons or other inferential statistics ncluded.

Culica, Walton, and Prezio (2007) enrolled 162 patients in the Community Diabetes Education (CoDE) Program at a nonprofit organization for one year. Participants were primarily Mexican Americans (78%) followed by African Americans (15%) and Caucasians (6%) who were uninsured and resided within a 10-mile radius of the clinic. An intensive, one on one educational model was used to provide information on diabetes management. Researchers collected demographic statistics as well as health indicators of HgbA1C, blood pressure, and BMI. Of the 162 participants enrolled, 92 participated for at least 12 months, with 55 having a 12 month HgbA1c value. Those 55 were broken into compliant (n=36) and noncompliant (n=19) with their CoDE visits. The research showed increased diabetic health literacy and improvement was made on patient’s HgbA1c for patients who participated in the program for 12 months (P<0.01) but no significant difference in mean blood pressures nor BMI over the time of the study (Culica, Walton, & Prezio, 2007). An interesting aspect discussed in the article was that 35 of the 162 initially enrolled patients dropped out of the free program. Reasons for leaving included lack of interest (13 individuals), relocation to other areas (18 individuals) and procurement of health insurance (3) individuals. One individual had resolution of secondary diabetes. The program used for diabetes education did not meet national standards for diabetes self-management education programs because of financial and organizational constraints faced by the facility. Researchers noted that this limitation was overcome by the direct supervision of a primary care physician (Culica, Walton &Prezio, 2007).

Cline, Sweeney and Cooper (2018) conducted a study with the goal of determining if outcomes improved for uninsured patients with chronic illness if they implemented a medical home clinic. The cohort of patients volunteered to transfer care to the medical home clinic. To meet criteria for transfer, patients had to have visited the emergency room four or more times in six months or have three or more inpatient stays in six months, coupled with the inability to pay. Patients had one or more chronic diseases such as diabetes, congestive heart failure, or chronic obstructive pulmonary disease. Patients received care from a multidisciplinary team at no cost. Researchers reported implementation of more primary care through a “medical home clinic” reduced hospital admissions from M=1.09 SD 0.43 prior to joining the medical home clinic to M=0.32,SD = 0.57 following joining the medical home clinic. This was statistically significant ($p<0.001$). The study listed the primary limitation to further research was cost of running the free clinic out of the hospital’s budget but did not include any summation of limits on the study itself (Cline, Sweeny & Cooper, 2018).

Summary of Literature Review

There is a good deal of research on barriers to care among undocumented immigrants as well as uninsured citizens, however the bulk of that revolves around limited access. In the research notable barriers included healthcare beliefs, knowledge of the health care process, availability of care, language and communication. Across all aspects of the literature, the most predominant barrier was somehow related to the cost of care or insurance.

In the case of this project, the care is provided by the free clinic. The primary investigator hopes to determine the barriers to care perceived by those patients and to find ways to alleviate some of those barriers.

Chapter Three: Methodology

The conundrum of uninsured care is multifaceted with strong medical and social elements. Thus, the purpose of this scholarly project is to explore the problems faced by these patients and the severity of those problems. The following chapter serves to set the stage for data collection and findings in this scholarly project. Additionally, elements to be included are a description of the design, setting, and participants, as well as other aspects of the scholarly project conducted.

Design

A quantitative, non-experimental correlational design was used to explore barriers to care. This design was chosen to better understand of the relationship between patients' perceived barriers to care and how the severity of those barriers relates to the achievement of needed care. The instrument used was a survey tool to gather data for identifying changes that could be made at the local, state, and federal level.

Setting

This research took place in a small free clinic in the Southeastern United States. Approximately 34,000 residents, of which 26.8 % of the population under the age of 65 are living without health insurance and 24 % of the population live below the national poverty line. Patients of this clinic are required to show that their income is less than 200% of the federal poverty level and provide proof of residence in one of two neighboring counties.

Participants

Participants were selected via convenience sampling, on a volunteer basis from patients of the free clinic. Convenience sampling, or availability sampling, is a nonprobability method which chooses participants who are available to respond to the study. Inclusion criteria: a) patients between the ages of 18 and 64 that are uninsured, and b) patients with chronic illness with a diagnosis of asthma, diabetes, hypertension, COPD, and/or hyperlipidemia. Exclusion criteria: a) patient younger than 18 or over 70, b) living above 200% of the national poverty level, or c) have either insurance or Medicare/Medicaid.

Ethical Considerations

This study was approved by the Institutional Review Board of Southern Adventist University. Complete explanation about the purpose and goals of this study was provided to the participants and their verbal and written consent were obtained. Participants had the right to refuse to withdraw from the study at any time. Data collected included personal information, demographics and survey responses. These were coded and all personal identifiers were removed. Electronic data were kept on a password protected thumb drive. It and hard copy surveys will be kept for 5 years in a locking file cabinet. After that time period all will be destroyed, appropriately.

Data Collection and Procedure

The initial quantitative study with non-experimental correlational design included a Google forms survey in English, however only one participant completed the survey in this manner. A hard copy survey was then created in both Spanish and English and handed out to patients who agreed to participate. In the first week of survey, patients were asked by the front desk staff to participate. There was very limited response to this manner, so the investigator moved data collection to lab days and began face to face requests.

Tools

The survey used for this project was adapted from a survey used in research completed by Dr. Cinthia Elkins in 2008. It included a section of demographic questions; one single question asking if participants received all, some, or none of the healthcare they needed; and a 40 question survey assessing different barriers to care which asked participants to rank, using a Likert scale, the severity of the barrier from 0 (none) to 3 (severe). The barriers assessed by the survey were grouped into the following categories: Knowledge, communication, language, beliefs, transportation, provider availability, bad experiences, responsibilities, finances, and racism. Finally, participants were given the opportunity to write in any other barriers they felt were not explored in the survey. The survey provided to participants can be found in Appendix 1.

Treatment of Data, Outcomes, and Plan for Evaluation

The survey data were entered into an Excel spreadsheet and uploaded into SPSS. The dependent variable examined was achieved access to care while the independent variables were the barriers to accessing health care on a Likert scale. Demographic data were collected as part of this survey to explore if demographic factors significantly impacted achieved access to care. Each participant was assigned a number as their ID, connecting the data to the participant. The dependent variable was assessed for normality and then the appropriate test for correlation between achieved access to care and each of the survey questions and question groups was assessed. Additionally, tests for correlation between achieved access to care, the total number of barriers and the total severity score was completed. Based on the number of patients being actively treated by the clinic at the time of this survey, 495, and using a confidence interval of 90% with a 10% margin of error, this study targeted 60 patients. However, only 45 surveys were collected within the allotted time.

Chapter 4: Analysis of Results

Chapter 4 provides a detailed analysis of the project findings. This will begin with a ``description of the population and variables and conclude with a description of the results as they relate to each of the hypotheses presented in Chapter 1.

Description of the Population

Among 45 participants in this study, most were female (n =34, 75.6%), with an average age of 49.8 (SD = 11.18, Range 19-64). Roughly 53% (n = 24) of participants lived in a home with a female head of household. Two percent of participants were Asian (n=1) while seven percent were African American (n = 3), 15% were Hispanic (n=7), and 76% were Caucasian (n=34). Sixty-four percent of participants (n=29) had visited the emergency room at least once in the last year, for reasons listed as high blood pressure, swelling, pain, infections and constipation. 86.7% of participants (n=39) listed English as their first language. 89% (n=40) stated they have been uninsured for the entirety of the last year. Finally, 36 (80%) of participants reported they had medical debt or unpaid medical bills.

Description of Variables

The dependent variable tested was achieved access to care. This was measured on a scale of 0 (no, no needed care received) to 2 (all needed care received). Seven (15.6%) participants admitted to receiving none of the healthcare they needed. Twenty-six (57.8%) stated that they received some, but not all of the care needed, and 12 (26.7%) stated all of their healthcare needs were met.

Independent variables were each of the perceived barriers that were assessed via Likert scale. Internal validity of the survey was tested via Cronbach Alpha with a reliability coefficient of 0.926. This indicates that the test has strong internal consistency.

First the Shapiro-Wilk test was completed to test for normal distribution of the Achieved Access to care variable because the sample size was 45. The significance of Shapiro-Wilk was $p < 0.001$, indicating the data was not normally distributed. As such, a Spearman's correlation coefficient (rho) was used to determine correlation between achieved access to care and each of the barriers assessed by the survey.

Analysis of the project questions/hypotheses

The overarching question for this project was among uninsured persons who utilize a free clinic healthcare in the Southeastern United States to manage chronic illness, what are the perceived barriers to receiving needed healthcare? In order to answer this the researcher evaluated several hypotheses.

Hypothesis one. Facing more barriers to health care services will result in a lower probability of achieving health care access and getting needed services. This was evaluated by totaling the number of barriers the patient admitted to experiencing, regardless of severity, and correlated with the achieved access to care score. A Spearman's rho correlation coefficient was calculated for the relationship between participant's achieved access to care and the number of barriers faced. A moderate negative correlation was found (rho (45) = -0.521) to be significant at $p < 0.001$. This indicates a significant relationship between the two variables. The more barriers faced, the less likely the participant is to achieve access to care.

Hypothesis two. Having barriers that are more severe will correlate with not achieving access to needed care. A cumulative score was calculated for each of the barriers. This was then compared with the achieved access score to determine if there was a significant correlation via spearman's correlation coefficient. The result of this test indicated a negative correlation of -0.602 ($p < 0.001$) between the achieved access and a higher severity of barriers. This indicates a significant relationship between the two variables. The more severe the perceived barriers the less likely the patient is to achieve access to care.

Hypothesis three. Some barriers will more strongly correlate with achieved access to care. The achieved access to care score was correlated with each of the scaled survey variables. While all variables had a negative correlation with the achieved access score only some were significant. The strongest negative correlation (rho = -0.616, P<0.001) was between achieved access to care and difficulty filling a prescription because inability to pay for it. A moderate, negative correlation was found, indicating a significant relationship between the two variables. Additionally, difficulty knowing where to go to find medical care (rho = -0.532, p <0.001), difficulty knowing when to seek medical care (rho =-0.464, p =0.001) and difficulty knowing how to get needed healthcare (rho = -0.552, P <0.001) were significantly, negatively correlated with achieving access to care. Difficulty because a patient had to wait too long in the waiting room (rho = -0.427, p = 0.003) and problems getting a referral to a specialist (rho = -0.432, p = 0.003) were also significant. Finally, being denied medical care because a patient could not pay or did not have insurance (rho = -0.453, p = 0.002) had a moderate, significant, negative correlation with achieving access to care. Additional correlations can be viewed in Table 1 in Appendix 2.

The forty survey questions were broken down into ten groups, knowledge, communication, language, beliefs, transportation, provider availability, bad experiences, responsibilities, finances, and racism. The questions in each category were added together to determine a barrier severity score which were then correlated with the achieved access to care score. The results of this indicated that the aggregate beliefs score (rho = -0.247), transportation score (rho = -0.213), and racism score (rho = -0.173), while loosely correlated, were not statistically significant (p=0.102, p=0.161, p=0.257 respectfully).

The most significant group of survey questions revealed a knowledge deficit among patients. There was a moderate negative correlation between achieving access to care and a grouped severity score from the questions involving difficulty knowing when, where, and how to obtain healthcare (rho = -0.571, p<0.001). The next strongest correlations occurred in the cost group (rho = -0.523, p<0.001) and provider availability (rho = -0.499, p<0.001). Finally, weak correlations were evident among the communication group (rho = -0.298, p=0.047), bad experiences (rho = -0.367, p=0.013), and responsibilities (rho = -0.382, p = 0.010).

Additional Descriptive Statistical Analysis

Of additional interest, a chi square analysis for significant differences across categories was calculated looking at various demographic questions and the achieved access to care score. No significant result was found between race/ethnicity and obtaining needed healthcare ($\chi_2(45) = 0.700$, $p>0.05$). This indicates that race and obtaining all needed healthcare were independent of each other. Speaking English as a first language was likewise independent from achieving needed healthcare ($\chi_2(45) = 0.354$, $p>0.05$). There was a significant interaction between achieving needed healthcare and having medical debt or unpaid medical bills ($\chi_2(45) = 4.801$, $p=0.028$). There was not a significant interaction between visiting the ER and achieving access to care ($\chi_2(45)=3.705$, $p=0.054$). This and further data relating variable to each other can be seen in Table 1.

Unintended Findings

It was expected that healthcare beliefs and communication might be strong barriers to achieved access to care based on the literature review (Maxwell et al, 2018, Velasco-Mondragon et al 2016, Dominguez et al., 2015, Luque et al., 2018). This was not the case. Communication was weakly correlated (rho=-0.298, p=0.047) while healthcare beliefs were not significantly correlated (rho=-0.247, p=0.102).

		In the past year did you obtain all the healthcare you needed?			
		No	Yes	Pearson Chi-Square	
		% of total(n)	% of total(n)	Value (χ^2)	Significance (p)
Race/ Ethnicity	Caucasian	57.8% (26)	17.8% (8)	0.7	0.403
	Minority	15.6%(7)	8.9%(4)		
Is a female head of your household	No	33.3% (15)	13.3%(6)	0.073	0.787
	Yes	40%(18)	13.3%(6)		
Gender	Female	55.6%(25)	20%(9)	0.003	0.958
	Male	17.8%(8)	6.7%(3)		
is English your first language?	No	11.1%(5)	2.2%(1)	0.354	0.552
	Yes	62.2%(28)	24.4%(11)		
Do you have a paying job?	No	55.6%(25)	20%(9)	0.003	0.958
	Yes	17.8%(8)	6.7%(3)		
Do you have medical debt or unpaid medical bills?	No	8.9%(4)	11.1%(5)	4.801	0.028
	Yes	64.4%(29)	15.6%(7)		
Have you been to the ER in the past year?	No	20%(9)	15.6%(7)	3.705	0.054
	Yes	53.3%(24)	11.1%(5)		

Table 1. Chi Square Test of Significant Differences

Chapter 5: Discussion of Findings

This chapter discusses how the outcomes relate to findings in the literature review, outcomes and limitations of the project, as well as implications for future studies and healthcare policy. It will conclude with a summation of knowledge gained through the process of conducting the project.

Relationship of Outcomes to Scholarly Project

The purpose of this scholarly paper was to explore the barriers faced by uninsured persons utilizing a free healthcare clinic to treat chronic illnesses and to correlate the severity of those barriers to achieving access to care.

The most significant group of survey questions revealed a knowledge deficit among patients. There was a moderate negative correlation between achieving access to care and a grouped severity score from the questions involving difficulty knowing when, where, and how to obtain healthcare (rho = -0.571, $p<0.001$). This finding was also reflected in the literature (Velasco-Mondragon et al 2016, Dominguez et al., 2015, Luque et al., 2018). In a population that is obtaining healthcare from a free clinic, it is concerning that some participants had little understanding of appropriate means of obtaining healthcare.

The aggregate barrier score for cost of obtaining healthcare being moderately correlated with access to care supports the research that cost is one of the most prohibitive barriers for patients obtaining the healthcare they need (Hacker et al., 2015, Dominguez et al., 2015, Luque et al., 2018). It is interesting that cost was significantly negatively correlated with achieving access to care because 93.3% of participants utilize the free clinic for management of their chronic diseases. This may be because some of the cost related to medications must be obtained outside of the clinic or the lack of available specialty care due to cost.

A new barrier that was not directly discussed in the literature was availability of healthcare providers. While the aggregate severity score in this group was mildly correlated with achieving access to care, it is worth noting that survey participants had difficulty getting a referral to a specialist (rho = -0.432, p=0.003). This is worth noting because while this free clinic does provide primary care services to patients, there are numerous specialists who will only see patients who can afford high out of pocket costs or who have insurance.

Observations

The instrument used did provide some significant results, however, if correlations had been stronger the results might have more weight. The survey used was adapted from one developed by Dr. Cinthia Elkins. The original survey included a second question evaluating achieved access to care in a six category Likert scale. This was omitted from the survey in this study in an effort to reduce the number of questions required of the participants. Had it been included the evaluated correlations might have been stronger.

Of interest was 80% of study participants(n=36) reported having unpaid medical bills or medical debt. It is unknown where this debt was generated, whether it was from seeking needed care prior to the establishment of the free clinic, from obtaining care in emergency departments, or from some other practice or procedure.

The outcomes of this study are worrisome, to say the least. The majority of these patients (73.3%, n=33), who are able to obtain basic healthcare from the free clinic, perceive that they are unable to obtain all needed care. This supports that our healthcare system is in need of drastic change.

Limitations

This survey was in one small community clinic during a 3-month period. There were challenges with recruitment in the beginning, as many patients in the clinic did not wish to complete the survey. Correlations do not represent causal relationship. Data collected were descriptive in nature. The sample size is small and limited to a specific, localized area of the US and thus cannot be widely generalized. There is an inherit weakness in self-reported survey data, however due to the nature of the study, wishing to understand personal experience and perceived barriers, it was the best source of information.

Implications for Future Projects

The researcher would like to expand this research into a mixed methods study involving a qualitative arm where they lived experiences of participants can be further evaluated. Additionally, the study could be repeated among other clinics in the same region, over a longer period of time to gain further understanding of the barriers experienced by the underserved and chronically ill.

It is evident that this population has a lack of knowledge as to when, where, and how to obtain access to care. This is one aspect that can be resolved through patient education at the clinic. A second aspect would be an education plan that could explain or describe what types of illnesses require emergency room visits and which ones can be seen in the clinic itself. This act might further alleviate some of the accrued healthcare expenses of the patients.

Implications for Health Policy

One of the biggest barriers seen in the research and in this study is the cost of healthcare. Patients routinely say that they do not obtain healthcare either because they cannot afford to do so, or they fear the financial repercussions if they do seek out needed care. The healthcare system within the United States is not functioning to its fullest potential. Access to healthcare should be a right granted to all citizens and there is desperate need for policy change. If all citizens had access to affordable healthcare, or uniform health insurance, we could potentially alleviate much of the economic burdens on our healthcare system and some of the accruing debt of our nation. Additionally, with a more nationalized system of healthcare insurance, events such as those occurring with the coronavirus outbreak would be less impactful on the lives of the nation. While the loss of jobs is terrifying, the increasing possibility that a person might experience a healthcare crisis while uninsured is panic inducing. Advanced practice providers can serve as advocates for our communities at both the state and national level, lobbying for better coverage for all. If providers cannot physically represent their communities, they can contribute financially to organizations who are working to make changes to health care policy.

Conclusions

The goal of this study was to determine the barriers to care experienced by patients with chronic disease at a free clinic in the Southeastern United States. The main barriers experienced by participants were cost of care, knowledge deficit of how the healthcare system works, and provider availability. These outcomes support the need for action and education within communities, states, and the nation.

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Appendix 1

Background Information

Note: Providing this information will have no effect on your receiving care. This information will be kept confidential and anonymous. Thank you for providing us with this information as it helps us to better serve you and our community.

Race & Ethnicity

__ American Indian/Alaskan Native

__Asian

__Black/African American

__ Native Hawaii/Hawaii/Another Pacific Islander

__Hispanic

__Caucasian/White

__ Multi-Racial (Please list) ____________

Where would you go for healthcare if you could not be seen at the DEO clinic? _____________

How many times have you been to the Emergency Department in the past year? _____________

For what reason(s):____

How long has it been since you have seen a healthcare provider? _______Years _______Months

Where do you usually go for healthcare? Hospital Emergency Room Clinic

Your Age:		
Your Gender:	Male	Female
Yearly income:		
Number of people in your household:		
Is the head of your household female?	Yes	No
Is English your first language?	Yes	No
Do you have a paying job?	Yes	No
Do you have children?	Yes	No
Do you have health insurance?	Yes	No
Have you been uninsured all year?	Yes	No
Have you had any period of insurance during the past year?	Yes	No
Do you have Medicaid?	Yes	No
Do you have a usual place of getting health care?	Yes	No
Do you usually go to DEO for health care?	Yes	No
Do you have a usual doctor?	Yes	No
Do you feel like you have very little or no choice in your source of healthcare?	Yes	No
Do you feel like you have experienced racism or prejudice in the healthcare setting?	Yes	No
Do you have a chronic illness?	Yes	No
Please list:		
Do you have medical debt or unpaid medical bills?	Yes	No

In the past year have you received all the healthcare you need?	Yes, I received all the healthcare I need	No, I received some of the healthcare I need	No, I received none of the healthcare I need

Health Care Barriers Questionnaire

How much of a problem is each of the following for YOU when you are trying to get the health care that you need? Please circle the best answer.

1. Difficulty knowing **where** to go to find medical care?	None	Little	Moderate	Severe
2. Difficulty knowing **when** to seek medical care?	None	Little	Moderate	Severe
3. Difficulty knowing **how** to get the healthcare you need?	None	Little	Moderate	Severe
4. Difficulty understanding doctor's orders?	None	Little	Moderate	Severe
5. Difficulty with paperwork or forms?	None	Little	Moderate	Severe
6. Difficulty getting through to the doctor's office or clinic by phone?	None	Little	Moderate	Severe
7. Difficulty with a lack of communication between my doctors or others in the healthcare system?	None	Little	Moderate	Severe
8. Difficulty because the doctors or nurses are not fluent in your language?	None	Little	Moderate	Severe
9. Difficulty because you disagree with the doctor's orders?	None	Little	Moderate	Severe
10. Difficulty because doctors don't like traditional remedies? (Herbal, Alternative therapy, etc)	None	Little	Moderate	Severe
11. Difficulty because doctors give you instructions that seem wrong?	None	Little	Moderate	Severe
12. Difficulty because doctors or nurses have different ideas about health than you do?	None	Little	Moderate	Severe
13. Difficulty with transportation to the doctor?	None	Little	Moderate	Severe
14. Difficulty getting to the doctor's office?	None	Little	Moderate	Severe
15. Difficulty because you have a hard time finding a doctor who will see you?	None	Little	Moderate	Severe
16. Difficulty because you have a hard time getting an appointment with a doctor?	None	Little	Moderate	Severe
17. Difficulty because you have to wait too many days for an appointment?	None	Little	Moderate	Severe
18. Difficulty getting care after hours or on the weekends?	None	Little	Moderate	Severe
19. Difficulty because you have to wait too long in the waiting room?	None	Little	Moderate	Severe
20. Problems getting a referral to a specialist?	None	Little	Moderate	Severe
21. Difficulty because doctors give as little service as possible?	None	Little	Moderate	Severe
22. Difficulty because the healthcare system gives as little service as possible?	None	Little	Moderate	Severe

23. Problems with doctors (rushing, not listening, not answering questions, other)?	None	Little	Moderate	Severe
24. Problems with professional staff at provider’s office?	None	Little	Moderate	Severe
25. Worrying that doctors and nurses will not do what is right?	None	Little	Moderate	Severe
26. Problems with doctors treating the symptom without finding out the cause of the illness?	None	Little	Moderate	Severe
27. Difficulty with getting a thorough (or complete) examination?	None	Little	Moderate	Severe
28. Difficulty getting time off work to see a doctor?	None	Little	Moderate	Severe
29. Difficulty getting to a doctor because of other responsibilities?	None	Little	Moderate	Severe
30. Difficulty getting a babysitter so you can see the doctor?	None	Little	Moderate	Severe
31. Difficulty getting to the doctor because of the needs of family members?	None	Little	Moderate	Severe
32. Difficulty filling a prescription because you can’t pay for it?	None	Little	Moderate	Severe
33. Putting off seeing a doctor because of what it might cost?	None	Little	Moderate	Severe
34. Difficulty getting health insurance?	None	Little	Moderate	Severe
35. Denied medical care because you can’t pay or don’t have health insurance?	None	Little	Moderate	Severe
36. Difficulty getting health care because you have medical debt or unpaid bills?	None	Little	Moderate	Severe
37. Denied healthcare because of medical debt or unpaid bills?	None	Little	Moderate	Severe
38. Racism or prejudice prevented you from seeking medical care?	None	Little	Moderate	Severe
39. Avoided seeking health care or being denied health care because of your immigration status?	None	Little	Moderate	Severe
40. Problems with being judged on your appearance, your ancestry, or your accent?	None	Little	Moderate	Severe

Are there any barriers that you face when trying to get healthcare that you need that we didn’t ask about above? Please take a moment to explain: ___________________________________

____

____

____

Appendix 2

Correlations

			In the past year did you get all the healthcare you need?
Spearman's rho	In the past year did you get all the healthcare you need?	Correlation Coefficient	1.000
		Sig. (2-tailed)	
		N	45
	Difficulty knowing where to go to find medical care	Correlation Coefficient	-.532**
		Sig. (2-tailed)	0.000
		N	45
	Difficulty knowing when to seek medical care	Correlation Coefficient	-.464**
		Sig. (2-tailed)	0.001
		N	45
	Difficulty knowing how to get the healthcare you need	Correlation Coefficient	-.552**
		Sig. (2-tailed)	0.000
		N	45
	Difficulty understanding doctor's orders	Correlation Coefficient	-0.265
		Sig. (2-tailed)	0.078
		N	45
	Difficulty with paperwork or forms	Correlation Coefficient	-0.270
		Sig. (2-tailed)	0.073
		N	45
	Difficulty getting through to the doctor's office or clinic by phone	Correlation Coefficient	-0.004
		Sig. (2-tailed)	0.977
		N	45
	Difficulty with a lack of communication between my doctors or others in the healthcare system	Correlation Coefficient	-0.193
		Sig. (2-tailed)	0.205
		N	45
	Difficulty because the doctors or nurses are not fluent in your language	Correlation Coefficient	-0.189
		Sig. (2-tailed)	0.215
		N	45
	Difficulty because you disagree with the doctor's orders	Correlation Coefficient	-0.070
		Sig. (2-tailed)	0.650
		N	45
	Difficulty because doctors don't like traditional remedies? (Herbal, alternative therapy, etc)	Correlation Coefficient	-0.175
		Sig. (2-tailed)	0.250
		N	45
	Difficulty because doctors give you instructions that seem wrong	Correlation Coefficient	-0.181
		Sig. (2-tailed)	0.233
		N	45
	Difficulty because doctors or nurses have different ideas about health than you do	Correlation Coefficient	-0.166
		Sig. (2-tailed)	0.276
		N	45
	Difficulty with transportation to the doctor	Correlation Coefficient	-0.235
		Sig. (2-tailed)	0.121
		N	45
	Difficulty getting to the doctor's office	Correlation Coefficient	-0.136
		Sig. (2-tailed)	0.372
		N	45
	Difficulty because you have a hard time finding a doctor who will see you	Correlation Coefficient	-.377*
		Sig. (2-tailed)	0.011
		N	45
	Difficulty because you have a hard time getting an appointment with a doctor	Correlation Coefficient	-.381**
		Sig. (2-tailed)	0.010
		N	45
	Difficulty because you have to wait too many days for an appointment	Correlation Coefficient	-.378*
		Sig. (2-tailed)	0.010
		N	45
	Difficulty getting care after hours or on the weekends	Correlation Coefficient	-0.294
		Sig. (2-tailed)	0.050
		N	45
	Difficulty because you have to wait too long in the waiting room	Correlation Coefficient	-.427**
		Sig. (2-tailed)	0.003
		N	45
	Problems getting a referral to a specialist	Correlation Coefficient	-.432**
		Sig. (2-tailed)	0.003
		N	45

Difficulty because doctors give as little service as possible	Correlation Coefficient	-.356*
	Sig. (2-tailed)	0.016
	N	45
Difficulty because the healthcare system gives as little service as possible	Correlation Coefficient	-.342*
	Sig. (2-tailed)	0.022
	N	45
Problems with doctors (rushing, not listening, not answering questions, other)	Correlation Coefficient	-.354*
	Sig. (2-tailed)	0.017
	N	45
Problems with professional staff at provider's office	Correlation Coefficient	-0.189
	Sig. (2-tailed)	0.213
	N	45
Worrying that doctors and nurses will not do what is right	Correlation Coefficient	-0.202
	Sig. (2-tailed)	0.183
	N	45
Problems with doctors treating the symptom without finding out the cause of the illness	Correlation Coefficient	-0.247
	Sig. (2-tailed)	0.102
	N	45
Difficulty with getting a thorough (or complete) examination	Correlation Coefficient	-.340*
	Sig. (2-tailed)	0.022
	N	45
Difficulty getting time off work to see a doctor	Correlation Coefficient	-.394**
	Sig. (2-tailed)	0.007
	N	45
Difficulty getting to a doctor because of other responsibilities	Correlation Coefficient	-.346*
	Sig. (2-tailed)	0.020
	N	45
Difficulty getting a baby sitter so you can see the doctor	Correlation Coefficient	-0.033
	Sig. (2-tailed)	0.831
	N	45
Difficulty getting to the doctor because of the needs of family members	Correlation Coefficient	-0.252
	Sig. (2-tailed)	0.095
	N	45
Difficulty filling a prescription because you can't pay for it	Correlation Coefficient	-.616**
	Sig. (2-tailed)	0.000
	N	45
Putting off seeing a doctor because of what it might cost	Correlation Coefficient	-.351*
	Sig. (2-tailed)	0.018
	N	45
Difficulty getting health insurance	Correlation Coefficient	-0.251
	Sig. (2-tailed)	0.096
	N	45
Denied medical care because you can't pay or don't have health insurance	Correlation Coefficient	-.453**
	Sig. (2-tailed)	0.002
	N	45
Difficulty getting health care because you have medical debt or unpaid bills	Correlation Coefficient	-.370*
	Sig. (2-tailed)	0.012
	N	45
Denied health care because you have medical debt or unpaid bills	Correlation Coefficient	-.304*
	Sig. (2-tailed)	0.043
	N	45
Racism or prejudice prevented you from seeking medical care	Correlation Coefficient	-0.048
	Sig. (2-tailed)	0.754
	N	45
Avoided seeking health care or being denied health care because of your immigration status	Correlation Coefficient	-0.033
	Sig. (2-tailed)	0.831
	N	45
Problems with being judged on your appearance, your ancestry, or your accent	Correlation Coefficient	-.314*
	Sig. (2-tailed)	0.036
	N	45

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 1. Spearman's Rho for Achieving Access to Care and each of the survey barriers.

Appendix 3

Scholarly Project End of Program Student Learning Outcomes Synthesis

PICO/Research Question:

Among uninsured persons who utilize a free clinic in the Southeastern United States to manage chronic illness, what are the perceived barriers to receiving needed healthcare?

1. Cultural Competence:

This project sought to gain an understanding of the barriers that uninsured patients face, with the end goal of removing some of those barriers. The survey in this scholarly project asks questions about language, cultural practices, perceptions of healthcare providers as well other types of potential barriers. By understanding those barriers, health care providers can more adequately address the needs of all patients who visit the clinic.

2. Evidence Based Practice:

The ultimate goal of this project is to improve the ability of uninsured patients to obtain healthcare. The specific group of patients being evaluated are high risk for non-compliance and falling through the cracks of the healthcare system. Through a review of literature, a survey was selected to evaluate perceived barriers to care among uninsured patients. The results of the survey were analyzed and the results will be discussed with the clinic. This is a direct use of evidence based practice.

3. Health Promotion:

My project promotes health by encouraging patient’s to look at their own health behaviors and perceptions. Additionally, the information collected might help the clinic allocate resources to other areas of patient care, such as education and health literacy, to help patients, help themselves. By alleviating barriers in healthcare, and reducing the cost, providers can help patients move up the ladder of maslow’s heriarchy and use the resources they have to make better nutritional and lifestyle choices.

4. Patient Centered Care:

The goal of this project is to identify reasons why patient's do not get the healthcare they need. By elucidating these barriers, the clinic might better serve the community and patients. The results may also allow for increased funding for transportation or educational opportunities that will help the patient's get to appointments and understand disease processes. As opposed to many medical offices who derive a profit from the care given to patients, this clinic operates on grant funding and charitable giving. This uniquely situates providers to put their patients first and maximize resources to the patient's benefit.

5. Quality and Safety:

The biggest concern with this project is that patients might interpret questions in a way that causes psychological distress related to their past healthcare experiences. Therefore, the survey will be completed at the clinic so that patients might have someone near by to talk to if needed. Patients will have the opportunity to decline participating in the survey with no repercussions. Additionally, the goal is to improve patient care at the clinic, thereby improving the quality of healthcare received.

6. Informatics and Innovation:

The majority of patients seen in the clinic have limited resources and so the electronic format initially planned, failed. Surveys were then provided in paper form. A bank of hand held electronic devises would have been nice to use, however they were unnecessary. Survey results were put into an excel spreadsheet and important into SPSS for statistical analysis.

7. Teamwork and Collaboration:

My team members will include the providers at the physician's practice, my project advisors, my classmates who might give me insight, and possibly a statistician to help evaluate my data outcomes. The project demonstrates teamwork and collaboration because I am stepping into a clinic where there are defined roles, of physicians, mid-level providers, and nurses who all work together to support these patients as best as possible. Additionally, the outcomes of this research might also help develop more interdisciplinary methods to meet the needs of the clinic's patients.

8. Professionalism:

Professionalism is an integral part of all healthcare settings. It allows for the development of trusting relationships between patients and providers and the rest of the care team. Through the process of developing this scholarly project I have developed many professional relationships with members of the community who support and run the free clinic. Additionally, I have developed a working relationship with the clinic and have begun volunteering as an RN twice per month. I hope to continue to do so as a Nurse Practitioner after passing boards.