ORIGINAL RESEARCH

Convenient care clinic nurse practitioner impact analysis

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ABSTRACT

Recent changes in healthcare regulations and the increased availability of health insurance to millions of previously uninsured has created an unprecedented opportunity to provide healthcare outside of the traditional healthcare system such as by nurse practitioners (NPs) in convenient care clinics (CCCs).This study surveyed 59 NPs who practiced at CCCs to explore the impact of their practice. The findings demonstrated that accessibility, convenience, affordability, quality patient care, and treating patient problems were the most impacts. Some of the biggest challenges to CCC practice included lack of care continuity, working alone, limited scope of practice, patient satisfaction and community awareness Overall the impact of NP care provided at CCC had a positive effect and represents a great potential for the expansion of healthcare into the community.

Key Words: Nurse practitioner, Convenient care clinics, Drugstore clinics, Increasing health demands

1. INTRODUCTION

Opportunities and support for NPs to improve healthcare in the community outside of traditional healthcare models has never been better. Nurses essentially provide holistic nursing care, including educating patients to promote health, understanding how to manage patient conditions, performing necessary interventions, providing therapeutic communication, and encouraging open communication. Community-based practice is a new, more comprehensive role supported by what patients really need and want in the delivery of health, rather than simply working in a "sick-care" model.

The Patient Protection and Affordable Care Act (ACA) 2010 offers the broadest change to the health care system in decades.[1] An additional 32 million currently uninsured families and individuals are expected to receive new coverage from the ACA. This legislation will, in turn, result in increased demands for primary health care providers.[2] Prior to the ACA, over 49 million people in the U.S. were uninsured. It is predicted that 34 million people will be coming into the health care system over the next several years. It is also currently estimated that aging and population growth are projected to account to 81% of an increase in demand for health care between 2010 and 2020.[3]

The total U.S. population of over 300,000,000,[4] many of whom are older and/or have multiple chronic medical conditions, will continue to place a tremendous strain on the current projected supply of primary care providers (200,000 physicians, 70,000 NPs, and 40,000 PAs). The current centralized clinic concept of ambulatory care will result in increasing delays to see a primary care provider, often for simple services such as health exams, immunizations, and minor illness care. Nurse practitioners (NPs), along with primary care physicians and physician assistants, provide the majority of the primary care in the United States and will be in greater demand as previously uninsured individuals seek health care.[5]

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In addition to the clearly increasing demand for services within the healthcare system there are also calls for extension of healthcare further into the community. The Robert Wood Johnson Foundation (RWJF) in 2013 assembled a national, nonpartisan commission of public and private sector healthcare leaders to address ways to improve health for all Americans. The commission (RWJF, 2014) summarized their findings in these words: "As Americans, we like to think that we are healthier than people who live in other countries. That is a myth. In fact, it is a myth for Americans at all income levels, but especially so for those living in vulnerable communities".[5] Their recommendations included creating opportunities for better health, not in the healthcare system, but where people live, in their neighborhoods, homes, schools, and workplaces.[6] The third major recommendation of the commission addressed the need for the nation to take a much more health-focused approach to health care financing and delivery and broaden the current mindset, mission, and the incentives from focusing on treating illness to helping people lead healthy lives.[6]

Community organizations and business leaders across the country are realizing that every sector needs to work together to create healthier places to live. Young individuals, especially, may place a high value on speed for all types of services, including medical care. Retail-based clinics have emerged as one solution to improve the health care system by providing access to healthcare in the community outside of the traditional healthcare institutions.

Walk-in care centers were first developed in the United States in the early 1970s as free-standing emergency care centers in an effort to offer a lower-cost alternative to emergency department visits. The first retail clinics opened in 2000, and by 2008 numbered close to 1,000. Retail clinics are currently widespread and easily accessible to large numbers of Americans. They provide access to care in a variety of neighborhoods including underserved populations and communities located outside of medically underserved areas (see Figure 1).[6] Three organizations, CVS, Walgreens, and Target, operate 73% of the clinics. More than half of the organizations (44%) that operated retail clinics were existing hospital chains or physician groups, such as the Mayo Clinic, Aurora Health Care, and Sutter, but these organizations operated only 11% of the clinics. Currently retail clinics are widespread and easily accessible to large numbers of Americans, but these clinics may not be improving access to care for underserved populations, since most of the clinics were located outside medically underserved areas.[7,8]

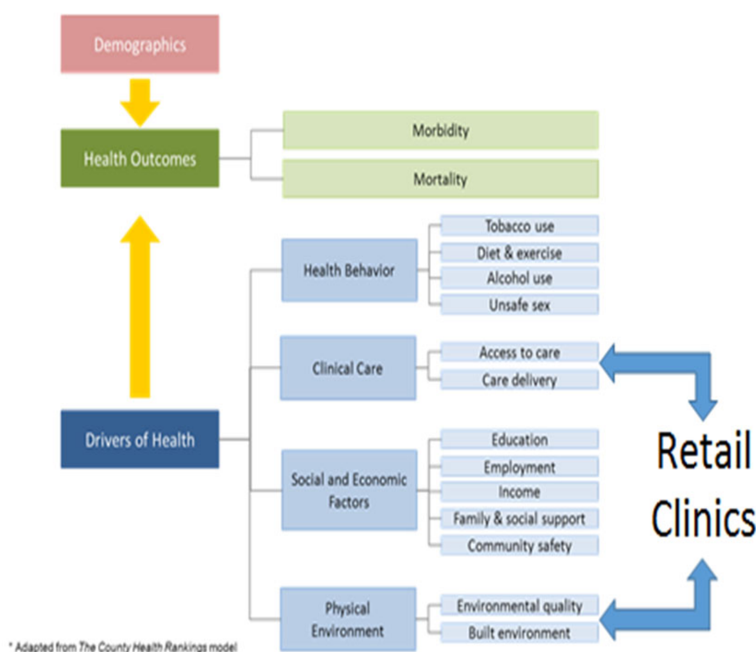

Figure 1. Population health framework

Systematic evidence supporting the value of retail care models has been growing substantially and has increased eight fold since the last decade.[9] This recent upsurge of retail clinics offers the opportunity to provide a continuum of care and attract individuals who do not typically use the health system. Retail clinics, as part of the physical "built" environment of a community, improve access to care and care delivery increasing environmental quality as envisioned in

a population health framework resulting in improved health outcomes in the community. As these clinics have been established, some studies have reported about their effects on cost, quality, and access. However, relatively few studies have addressed this topic given the substantial growth in this care modality.

Nurses are both the largest group of health care professionals and the most trusted,[10] and for good reason. In addition to their education and expertise in diagnosis and treatment, the proficiency of NPs in providing health education and prevention services makes them skilled managers and service providers wherever they practice.[11] Nurse practitioners, with a minimum of six years of education and consistently holding the highest level of public trust of any profession, are the key to the successful mixing of retail and healthcare.[12] For those NPs who do not wish to practice solely within the traditional healthcare system using the conventional Western medical model, a community-based practice may be warranted. NPs may need to utilize this unprecedented opportunity within the retail clinic setting to carve out a role unique for nursing.

1.1 Convenient care clinics

Convenient care clinics consist of medical clinics located in pharmacies, grocery stores, and "big box" stores, such as Target. They offer care for simple, acute conditions, such as bronchitis and ear infections, to screenings for hypertension and diabetes, along with preventive and wellness care. Retail clinics emphasize convenience, with extended weekend and evening hours, no appointments, and short wait times. As retail clinics are becoming increasingly widespread, they provide another way for patients to access affordable, high-quality health care, thus helping to address some of the health care system's more pressing problems, such as overcrowded urgent care and emergency rooms.

Retail walk-in clinics are typically staffed by nurse practitioners who are skilled at primary care. These clinics are the most appropriate for relatively healthy individuals who desire to be seen quickly as making an appointment with a primary care provider may not always be immediate. Thus, retail clinics are more convenient and less expensive than scheduled appointments for low-acuity visits in a traditional primary care medical practice.[13] Increasing patient demand for convenient, affordable care has driven the establishment of retail primary care clinics throughout the United States and in other countries.

These community-based and embedded CCCs through their accessibility, affordability, and availability are reshaping the healthcare marketplace, producing a new model of NP-led healthcare delivery. This examination of practice in CCCs will help inform the further development of challenges and opportunities for healthcare provided outside of the traditional healthcare system, and the role of NPs in fostering a movement towards community-based care.

With the growing wave of CCCs across the country comes a spotlight on NPs as community-based providers. Some retail clinic companies are owned by NPs, while many others provide opportunities for NPs to design clinic practices, policies and procedures, rather than having them designed by business administrators or physicians. The holistic perspective of NPs who staff the retail clinics promote the added opportunity to deliver convenient preventive health and wellness services.[14]

Peer-reviewed studies have consistently confirmed that NPs offer high quality care in these clinic settings. Shakeel, Newton, Clark, and Hussain (2008) found that nurse-led clinics had shorter waiting times, more advice on health care, continuity of care, and a high level of patient satisfaction with the overall care.[15] Ahmed (2010) found that with minor illnesses, retail clinics offered a convenient alternative which provided quick access and cost savings to consumers.[16] Polit and others agree that retail clinics are not a substitute for primary care, but rather are similar to the ATM in the banking industry.[17] The public is comfortable and knowledgeable about the scope and limitations on banking transactions at the ATM and when an appointment with the bank manager or loan officer is warranted.[14] Retail clinic organizations have significantly impacted the health care delivery system and with their success and proliferation allow the public to more fully understand their role. With multiple convenient locations, dedicated preventive care and screening services, retail clinics should certainly become more mainstream.

A study by Lugo, Girgianni, and Zimmer (2006) reported that patients in rural areas tend to use walk-in clinics as a supplement to, rather than a substitute for, having a regular physician.[18] Walk-in clinics are superior to healthcare system visits when clinically appropriate because individuals receive treatment promptly. The advantages of walk-in care centers include greater convenience, good technical quality, and lower cost than emergency department and routine office visits.[9] Because of their superior accessibility, primary care walk-in clinics may be able to reduce disparities in access to medical care.[18]

1.2 Aims

This study examined practice at convenient care ("drugstore") clinics from the perspective of the NPs. The impact NP practice has on the clinic population was evaluated. The motives,

challenges, and opportunities for patients to choose retail clinics was examined, including, the role of NPs in fostering community involvement. The assessment of nurse-led clinics was conducted by a survey of convenient care clinic providers focusing on the factors contributing to a patient's motive to access retail clinics. This study also examined NP views on the environment of retail clinics and the quality of care provided there.

2. Methods

2.1 Survey development

A web-based search revealed no "gold standard" instruments or survey tools examining the impact of care in convenient care clinics ("drugstore clinics") from the perspectives of providers (NPs). The survey items were derived from an examination of the literature on convenient care clinics. The survey contained 20 items which included multiple choice, open ended, and short write in items. A two-week pilot study with 15 respondents was completed to assess the validity and reliability of the survey, as well as the length of questionnaire, time to complete, survey comprehension, and appearance of survey. After the pilot test, final changes were made to the survey. Face and content validity was established by review of the survey by seven NPs. A content validity index validated that the survey questions assessed the concepts being measured (Waltz, Strickland, & Lenz, 2005). Survey reliability was confirmed via internal consistency testing. The Cronbach's alpha coefficient of r = .851 to .814 supported the reliability of the survey.

2.2 Design

Polit and Beck (2013) describe impact analysis methods as useful in the identification of anticipated or actual impact of a program or intervention on social, economic, and environmental factors which the intervention is designed to, or may inadvertently, affect.[17] After approval from the Institutional Review Board of the University of Phoenix the online survey was administered via Survey Monkey. Potential respondents received an email which included a national link (from the Doctors of Nursing Practice, Inc.) which directed them to the survey Website. The first page of the survey consistent of informed consent information and completion of the survey demonstrated implied consent. Responses were recorded anonymously. An attempt was made to recruit a national sample of respondents. It was determined that a minimum of 30 respondents were needed in order to provide a representative perspective of practice at convenient care clinics. Fifty nine convenient care clinic providers completed the survey. Written comments were also invited. Numerical data was analyzed via Survey Monkey descriptive statistics. Numerical data analysis was conducted via Survey Monkey. Descriptive statistics on convenient care NPS demographic and work variables were computed and included NP professional roles, gender, marital status, and ethnicity.

3. Findings and discussion

3.1 Demographics

Fifty nine NPs from around the country who practice in primary care settings participated in our study. All had experience at CCCs. Thirty eight of the 59 (64%) were convenient care NPS. More than 90% of the respondents were women. With a mean age of 52 years, respondents were similar to the average age of NPs. By ethnicity, 64% were as white, 25% non-white, and 3% other ethnicity including two or more races (see Figure 2). The majority of the respondents, 59%, identified themselves as married. About 80% of the respondents had been in there position for 3 years or less, where as 25% had been in their position for more than 6 years. About 83% of respondents reported being satisfied with their current position, where as 18% reported not satisfied in their current position.

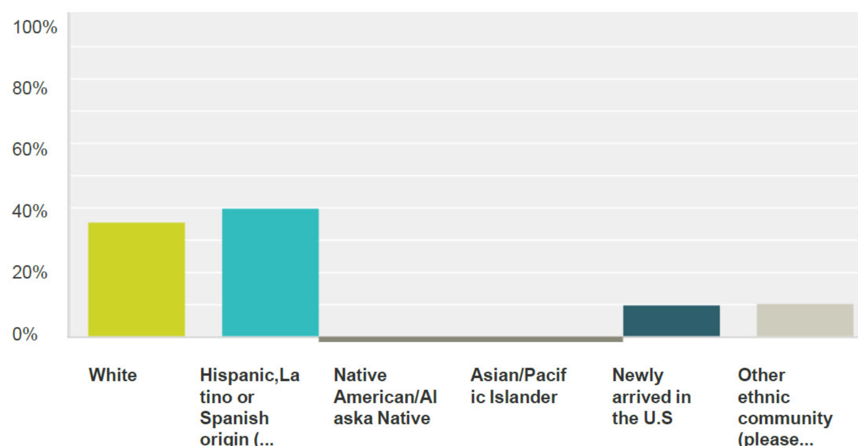

Figure 2. The Descriptive statistics represent the professional ethnicity of the CCC NPS that answered the survey

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3.2 Impact of care provided by (CCC) NPs

The CC NPs reported why patients were seen, and why patients chose the CCCs instead of their provider's office. The respondents reported that infections were the most common reasons for coming to the CCC (see Figure 3). Upper respiratory infections were the most common reason for visiting the CCC (89%), followed by immunization and screening (72%), otitis media (69%), bronchitis (56%), urinary tract infections (70%), viral infection (63%), health physicals (54%), allergies (51%), pain (48%), eye infections (44%), influenza (44%), and tonsillitis (35%).

In response to why patients came to CCCs (see Figure 4) convenience was the highest reason (92%), followed by accessibility (83%), no health insurance (67%), no primary care provider (67%), cost of services (58%), transportation (29%) and new government insurance through the "Affordable health care act" (27%). The most common groups seen in the CCCs were patients of Hispanic, Latino or Spanish origin (41%), white (35%), newly arrived in the U.S. (11%), and Asian/Pacific Islander (4%). CC NPs (92%) reported that they treat many conditions and that their patients know what type of care NPS are able to deliver.

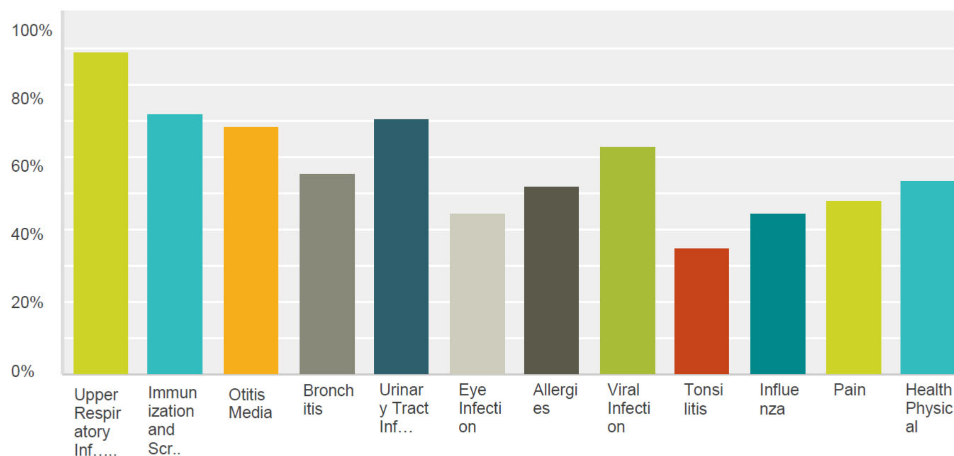

Figure 3. What conditions were the patients seen for in the clinic for today (or the last day that you practiced at the clinic)?

3.3 Open-ended questions

Three open ended questions were included in the survey asking the NP to describe the most important impact of the clinic, biggest challenges, and needed changes to the practice. Thematic analysis from the open-ended questions resulted in the identification of several categories of responses for each question. The categories were listed in order of frequency, from those with the greatest number of participant responses to those with the fewest. The validity of the thematic analysis is supported through the inclusion of direct quotes from respondents in the following category descriptions.[19] These themes clearly support the participant responses and reflect contemporary issues in community-based healthcare.

3.3.1 *Most important impact*

Respondents were asked: What do you feel is the most important positive impact of the CCC ("drugstore clinic") where you practice? The responses described accessibility, convenience, affordability, quality patient care, and treating patient problems as the most impacts.

Accessibility. The description of increases access to health care as an impact included many positive statements (see Table 1). The respondents recognized the need to develop better accessibility for patient care and the need to make health care accessible to everyone.

Convenience. Respondent's perceptions towards the convenience of CCCs underscore need for increasing convenience as reflected in the literature on the convenience offered by CCCs (see Table 1). Ahmed (2010) concluded that wait time is a major determinant of care seeking decisions for minor illnesses. Cost savings and convenience offered by CCCs are attractive to urban patients, and given sufficient cost savings they are likely to seek care there.[16]

Affordability. The affordability of CCCs was supported by respondent statements which illustrated the importance of affordability in healthcare (see Table 1). It was readily apparent that the respondents recognized the importance of affordable health care.

Quality Patient Care. Providing quality patient care was important to the respondents. They felt that quality care could be provided at the CCCs. Responses also demonstrated the beneficial role which CCCs provide.

Treating Patient Problems. The respondents describe the need for treating patient problems (see Table 1). It was

readily apparent that the respondents could contribute to improvement in treating patient problems in the CCC. The recognized need for treating patient problems came from studies that report which confirm the increasing impact in treating patient problems in CCCs.[13]

From the comments, five areas contributed to decisions regarding "the positive impact care" provided in CCCs. In summary, five themes emerged from analysis of participant responses:

(1) Need to improve accessibility to assist the positive impact care provided in CCCs.
(2) Need to improve hours of service to support improved convenience of care provided in CCCS.
(3) The need to support a new health care delivery model that gives all patients what they really need for health care in CCCs.
(4) The need for funding sources to facilitate patient care services for CCCs.
(5) Need to provide treatment of health care problems to people who would not have health care in CCCs.

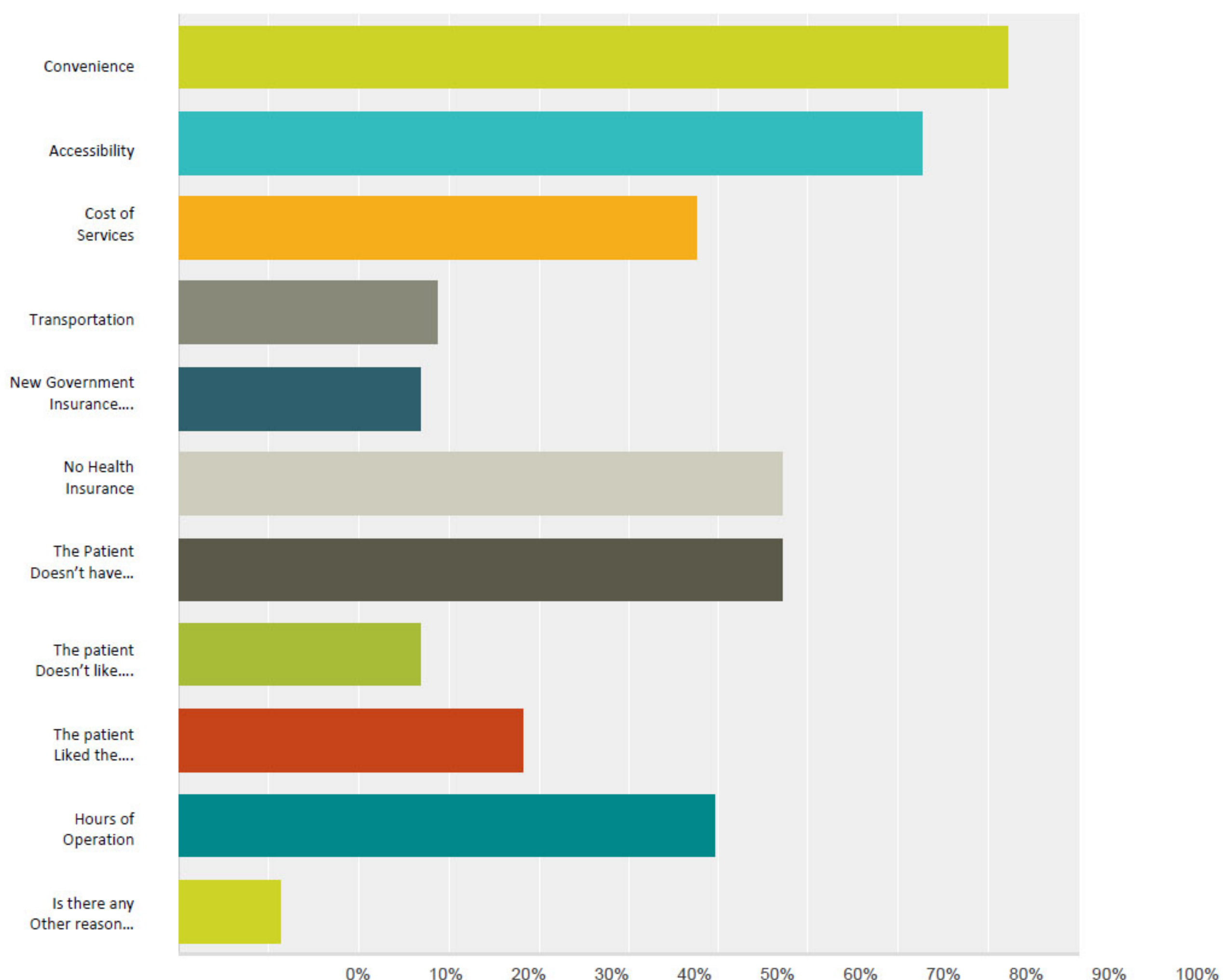

Figure 4. Why do most of your patients come to the convenient care clinic ("drugstore clinic") instead of their provider's office or another source of care?

3.3.2 *Biggest challenges*

Respondents were asked: What is the biggest challenge of the CCC ("drugstore clinic") where you practice in providing health care? The responses described the lack of care continuity, working alone, limited scope of practice, patient satisfaction and community awareness as the biggest challenges.

Lack of continuity of care. From the collective responses (see Table 2) a key challenge to practice at the CCC was lack of continuity of care. All respondent identified that the need for continuity of care was viewed as an important change that would improve care at a CCC.

Table 1. Frequencies and answers of participant responses for Question: What do you feel is the most important positive impact of the CCC ("drugstore clinic") where you practice?

Category	Number of Responses	Respondent Answers
Accessibility	19 (41%)	▪ "access to underserved populations" ▪ "access for all" ▪ "providing quality accessible care" ▪ "access to care for everyone" ▪ "accessibility of basic health care services for people who would normally not seek out a PCP" ▪ "access to convenient care" ▪ "access to local hospital systems to look at patients' medical history" ▪ "ensures a safer and more efficient care" ▪ "make it available to everyone"
Convenience	9 (20%)	▪ "the convenience encourages being seen by a healthcare provider" ▪ "convenience for patients" ▪ "great care and convenient" ▪ "convenience for service providers and convenience and ability for patients to have heath concerns addressed after hours"
Affordability	9 (20%)	▪ "affordable care to patients who lack insurance or funds to see a primary care provider" ▪ "low cost and available health care to people who don't have a primary care provider"
Quality patient care	7 (15%)	▪ "help patients receive quality patient care" ▪ "quality patient care" ▪ "completely clarify the services provided" ▪ "limit practice to non-urgent services only, treating chronic conditions not feasible for urgent care setting"
Treating patient problems	2 (4%)	▪ "extended hours for non-emergent care which keeps some Medicaid patients of the emergency department" ▪ "providing health care to people who would not have health care otherwise"

Table 2. Frequencies and answers of participant responses to Question: What is the biggest challenge of the CCC ("drugstore clinic") where you practice in providing health care?

Category	Number of Responses	Respondent Answers
Lack of continuity of care	21 (46%)	▪ "establishing a primary care relationship" ▪ "no/lack of continuity" ▪ "not seeing the patient back for follow-up care" ▪ "no follow up on patients condition" ▪ "the same as other areas of practice, which is if the patient chooses not to go for follow up with their condition" ▪ "patient compliance-unsure if PCP follows up with patient after referral to them"
Working alone	11 (24%)	▪ "just myself to do all the work" ▪ "no ancillary help" ▪ "not having enough support on some of the days (working alone), so I'm trying to manage the waiting room and see the patients" ▪ "no help, work alone"
Limited scope of practice	7 (15%)	▪ "limited scope of practice" ▪ "patient seeking care for conditions not covered by the clinic" ▪ "limited access to all insurance coverage" ▪ "limitations on what we treat"
Patient satisfaction	5 (11%)	▪ "balancing patient satisfaction with evidence based care" ▪ "most patients want antibiotics regardless if viral etiology" ▪ "long waiting times"
Community awareness	2 (4%)	▪ "getting the word out to the community on resource availability" ▪ "lack of understanding about services" ▪ "word of mouth, as not many patients know about the CCCs and tend to only think of seeing a doctor in the area. By raising awareness, it lets patients know CCCs are available to help them meet their healthcare needs"

Working alone. Working alone in the current CCC system was identified as challenging and very different from other primary care systems that the NPs had practiced in, The NPs reported that the transition into working alone was difficult. Respondents pointed to the need for additional ancillary help to support their practice in the CCC (see Table 2).

Limited scope of practice. Key elements of NP training includes both training in the complexity of clinical care and using a primary care model that is patient centered, team-based, and comprehensive. CCCs rely on NPs to provide a range of front-line health services, such as primary and preventive care, and teaching patients how to avoid injury which could result in extensive hospitalization and nursing home care. The respondents reported that NPs are currently under-utilized with limited scope of practice in CCC (see Table 2). This result is consistent with a study by Spetz, and colleagues (2010) of NPs and nurse midwives in California.20 commissioned by the California Board of Registered Nursing. A total of 409 respondents, representing 29% of the state's NPs and certified nurse midwives (CNMs) were recruited into the study. The study found that the medical profession, employers, and the public do not understand the role of APRNs. Additionally, the APRNs who were transitioning to new roles were concerned that they would not be successful, as they were not fully prepared to practice independently and without continued supervision. About 16% of the APRNs in the study were working as RNs, indicating that a portion of the APRN workforce was being underutilized.

Patient satisfaction. Patient satisfaction was described as a challenge in the current CCC system. The respondents reported that there was a struggle between not wanting to receive a negative patient satisfaction evaluation, which would be the basis for performance evaluation and bonuses, and not wanting to succumb to patient demands, for example for antibiotics for viral infections.

Community Awareness. The last challenge was described as the need for increasing community awareness for the CCCs. The challenge was supported by the statements indicated a lack of community awareness about CCCs.

It was evident from the respondent that without proper education for the community is residents have insufficient information or knowledge about healthcare issues, a finding that is well documented in the professional literature. From the comments, five areas contribute to decisions concerning "the biggest challenges" that impact care provided in CCCs. In summary, five themes emerged from analysis of participant responses:

(1) Need to improve continuity of care to assist care provided in CCCs.
(2) Need to improve additional ancillary support improved convenience of care provided in CCCS.
(3) The need to improve scope of practice that gives patients better-quality health care in CCCs.
(4) The need for to improve patient satisfaction of health care in the CCCs.
(5) Need to improve community awareness to people who do not have health care in CCCs.

3.3.3 *CCC Change*

Respondents were asked: If you could change something about the CCC ("drugstore clinic") where you practice what would it be? The respondents described increased ancillary help, an increased scope of practice, improved continuity of care, improved accessibility, and better marketing and design as needed CCC changes.

Increased ancillary help. It was quite evident that the respondents that increased ancillary support should be encouraged throughout CCCs to decrease role strain and promote long term careers for NPs in CCC care (see Table 3). This finding reflects recommendations in the literature that the current healthcare system must improve the delivery of healthcare in a manner that is more consistent with the Institute of Medicine's (IOM's) principle of efficiency, being patient centered and timeliness, while always striving for increased quality and safety.[3,5]

Increased scope of practice. From the responses, the issue limited scope of practice emerged. The need for increased scope of practice was supported by statements which supported the need to expand the current practices of CCC NPs. This perspective is consist with the recent study by Spetz *et al.* (2013) which points out that when NPs practice to the full extent of their training, NPs can deliver highly efficient high-quality primary care.[21]

Improve continuity of care. The need for improved continuity of care in the current CCC system was described by the respondents (see Table 3). Nine of the key phrases reported included the need to establish a continuum of care. This report echoes the professional literature that NPs' knowledge and skills along with the increased availability of CCCs settings expands access to healthcare, improves care coordination, as compared with traditional hospital settings.[21]

Improve accessibility. Respondents were concerned about being able to improve access to care using CCCs, as opposed to traditional primary care practice. This finding mirrors the literature by Roblin (2004) and colleagues,[22] which describe establishing integrative primary care models that employ actual collaborative practice which increase access, and expands the scope of primary care.[23]

Table 3. Frequencies of participant responses for Question: If you could change something about the CCC ("drugstore clinic") where you practice what would it be?

Category	Number of Responses	Respondent Answers
Increase ancillary help	15 (37%)	▪ "hire a LPN" ▪ "having a medical or nursing assistant to assist in the clinic and help check in individuals" ▪ "speed of services with more support" " ▪ "increase ancillary services and/or support during the busiest times of the day" ▪ "need support people-individuals, do not like the dealing with a kiosk machine" ▪ "more resources available to help the underprivileged population in the area around our clinic" ▪ "more providers" ▪ "have a nurse to help process the patients to improve time management" ▪ "more orientation to nurses"
Expand scope of practice	15 (37%)	▪ "independent NP practice" ▪ "there is limited scope of practice as minor complications are referred out" ▪ "making our scope larger and involvement with the DEA" ▪ "practice is limited to non-urgent services only, treating chronic conditions is not feasible for urgent care setting" ▪ "expanded services" ▪ "make it more like primary care" ▪ "completely clarify the services provided"

Marketing and design. The last change reported pertained to the need for increased marketing for all third party and other reimbursement programs to be accepted including government programs such as Medicaid (Medical in California).

From the comments, five concerns were reported regarding change that would impact care provided in CCCs. In summary, five themes developed from the participant responses:

(1) Need to improve additional ancillary support improved convenience of care provided in CCCS.
(2) The need to expand scope of practice that gives patients better-quality health care in CCCs.
(3) Need to improve continuity of care to assist care provided in CCCs.
(4) The need for to improve accessibility of health care in the CCCs.
(5) The need to improve marketing and design of health care provided in the CCCs.

4. Implications and recommendations

4.1 Limitations

The results were limited by the study's sample size and may not be generalizable to a larger group of stakeholders. Also, the NPs who participated may not be representative of NPs who practice in CCCs. Presently, the lack of accessibility to health care is considered a crisis in the United States. Collaboration among all healthcare providers is essential to expand access to care for everyone. NPs are crucial to the operation of CCCs and provide care that is well-received by consumers Therefore, further quantitative and qualitative studies should be employed with larger samples to examine key evidence of the CCC's NPs ability to reach full scope of practice and role performance. Adopting a mixed methods model through the use of interview or focus groups would also provide valuable insights into the CCC's NPs experiences.

4.2 Recommendations

The findings suggest that the impact of NP care provided at CCC has a positive effect on the community and represents a great potential for the expansion of healthcare into the community. CCCs represent a growing segment of the health care industry based on a new model of care that emphasizes patient demand, and the need for access and convenience. Additional research is needed before recommendations can be made regarding the optimal structure and design of CCCs. However, organizations that provide healthcare in nontraditional settings can be encouraged to expand healthcare delivery into the community with continued careful evaluation of the impact of that expansion on access, quality, and efficiency.

Bio statement

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Conflicts of Interest Disclosure

The author declares that there is no conflict of interest.

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