REDUCING NO-SHOW APPOINTMENTS

Presented in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Nursing Practice

Nova Southeastern University
Health Professions Division
Assaf College of Nursing

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DNP Project Chair Form

We, the undersigned, agree to serve as the DNP Project Chair of: Bari Berger

_____ who is developing a

DNP Project proposal tentatively titled: Reducing No-show Appointments

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Agreement to be the DNP Project Chair, does not imply acceptance of the proposal

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Certification of Authorship

Bari Berger, a DNP Student, submitted Reducing No-Show Appointments as my DNP project.

I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas, or words that are copied directly or paraphrased in the document. Sources are properly credited according to accepted standards for professional publications. I also certify that this paper was prepared by me for this purpose.

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Certification

We hereby certify that this DNP Project, submitted by Bari Berger, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Nursing Practice degree.

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Abstract

Background: The problem of no-show appointments is evident throughout the world. Lack of transportation to healthcare facilities is one of the top five reasons for no-show appointments, and no-shows are costly in health for patients and resources for clinics.

Purpose: The purpose of this quality improvement project was to determine the effectiveness of provision of free transportation to a free clinic to a target population of high-poverty patients to reduce no shows. The question guiding inquiry was this: For transportation-challenged patients ages 60 to 65 at the free clinic, what is the impact of providing transportation for 3 months on the rate of no-show appointments?

Theoretical Framework: Pender's Health Promotion Model was used, incorporating patients' experiences, comprehension of health, and attitudes about actions to take concerning their health.

Methods: A retrospective quantitative method was used in a pre-postimplementation design. With the target population of approximately 1,000 patients, a two proportions *z*-test was used to determine whether significant change over 3 months took place to reduce no-shows with provision of free transportation.

Results: Statistical analysis showed that no significant differences were found in the no shows from preimplementation to postimplementation.

Conclusions: For the clinic patients to keep their appointments, they may need more support from the staff. When patients keep their appointments, many health benefits result. Reasons other than transportation may have contributed to the results. Further research is necessary to determine additional reasons for no shows.

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Chapter One: Overview of the Problem of Interest

The health of a community is of importance to everyone who resides in it. In a community, the indigent, or working poor, frequently cannot pay for healthcare insurance (Healthy People 2030, n.d.). To help them, many communities have free clinics that rely on the private and business sector donations to operate. Free clinics offer numerous services to the working poor, such as medications, simple palliative procedures, and primary and specialty care**.** However, when patients do not call or appear for scheduled appointments, the clinic's resources, such as specialty resources and primary care visits, are affected. These resources could be available for other patients.

Background

The problem of no-show appointments is evident throughout the world (Alawadhi et al., 2021). The issues of why no-shows take place is different for each population and each culture. Thus, solutions must be different based on the populations served. However, lack of transportation to healthcare facilities is one of the top five reasons for no-show appointments (Brown et al., 2020; Crutchfield & Kistler, 2017).

In an area in Central West Coast Florida, many people are homeless. A large tent city houses part of the homeless population. Based on the 2021 data from the State of Florida (State of Florida's Interagency Council on Homelessness [The Council], 2021), over 2,000 homeless people live in the service area. The area the clinic services has five hospitals and seven emergency rooms. However, many residents do not have healthcare for their chronic conditions because they lack insurance.

Based on information received from a free clinic located in Central West Florida, the clinic provided care to 3,402 people, and 510 were new to the clinic (Clearwater Free

Clinic [CFC], 2021). During 2019-2020, approximately 20% of the appointments per month, or 680, were lost to no-show patients. In 2022, the clinic served 3,289 patients, with 287 new patients since 2021. Many of those patients would use the emergency room if the clinic was not available (CFC, 2021). From July 2021 to December 2021, the clinic had 1,200 no-show appointments, or 36% (CFC, 2021).

According to the information received from CFC, 89% of the people served had chronic conditions, 69% would have used an emergency room instead, and almost 40.000 medications were dispensed by the internal pharmacy (CFC, 2021). The total cost for operation of the clinic was over $9 million; this total amount was donated by sponsors or local healthcare entities (CFC, 2021). No specific information is available on cost to the clinic for no-show people or the emergency room if they utilized that service.

Needs Assessment

The clinic provides care for patients who live in Central West Coast Florida and who are from 18 years old to 65 years old, when Medicare contributes. The clinic does not accept patients who have any form of insurance, and patients must be within the federal poverty guidelines of 200% of poverty level: $25,760 annually to be eligible for care at the clinic (Office for the Assistant Secretary for Planning and Evaluation [ASPE], 2022).

The total population for this area, 957,875, identify as 85% White, 11% Black, 8% Hispanic or Latino, 3% Asian, and 1% other (Florida Department of Health in Pinellas County [FLDOH], 2018). The median income for all people other than Asians is below $50,000 per year (FLDOH, 2018). Most people in the county who live below poverty level are Black, Hispanic/Latino, and other ethnicities (FLDOH, 2018).

Few people in the county use public transportation, only 1.8% (Pinellas Suncoast Transit Authority [PSTA], 2022). The county has public bus services that offer a plan for disadvantaged people that is less expensive than the regular fare. The fares can be free for people over 65 if they start their ridership in a certain area of the county. Other fares under the plan for the disadvantaged run from $5 to $20 per month, depending on the service needed, such as late shift or location of pick-up and drop-off (PSTA, 2022).

However, there are some disadvantages for patients to using a bus. These include distance from the bus stop, getting to the bus in inclement weather, bus routes taking a long time to get from one point to another, and delays at stops (PSTA, 2022). In 2020, in the county, the average bus was on time less than 70% of the time (PSTA, 2022). Other forms of transportation in the area are bicycle, walking, taxi, Uber, and Lyft (Forward Pinellas, 2020).

Given the disadvantages of public buses, they are minimally desirable for disadvantaged people using the CFC. Many patients probably do not appear for their clinic appointments because of the difficulty of travel. The rate of no-shows has increased over the years. Decreasing the incidence of no-show appointments would help the no-show patients appear for their appointments and increase availability for new and existing patients, and the clinic administrators desire to decrease the amount of no-show appointments. To help decrease the no-shows, following Nova Southeastern University Institutional Review Board (IRB) approval (Appendix A), the principal investigator (PI) obtained permission from the clinic administrator to conduct this project (Appendix B).

Significance of Clinical Problem

Many of the area residents suffer from major chronic diseases, such as heart disease, stroke, diabetes, and asthma (FLDOH, 2018). Chronic diseases can be adequately managed by free clinics when the patients show up for their appointments. They can obtain a physical examination, lab tests, radiology, ultrasound, and medications for free or minimal cost as needed.

If a person does not call to cancel an appointment or simply does not show up, problems are created. Patients who miss their appointments may be putting themselves at risk for increased health issues (Drewek et al., 2017). More than 80% of the patients at the clinic manage at least one chronic health issue (CFC, 2021). A missed appointment can also create a rift in the patient-provider relationship (Marbouh et al., 2020). This relationship is important to the plan of care, and a good relationship can increase patient adherence to that plan.

Further, when a person misses the scheduled appointment with their preferred provider, they may be assigned to a random provider, who may be a stranger. Such assignments erode the trust of the patient in the preferred or ongoing provider and may disrupt the continuity of care (Gant-Farley et al., 2021). Patients who miss appointments also have lower rates of annual screenings and may not have new issues diagnosed (Groden et al., 2021). Finally, timely care is lost for other patients who could have filled that appointment time.

Problem Statement

At the project site, many residents are older, indigent, or homeless and have chronic health issues. They do not have access to adequate transportation to the free

clinic for treatment. Therefore, an escalating number of patients do not show up for care or follow-up at the free clinic.

Question Guiding Inquiry

The question guiding the inquiry of this project was this: For transportation-challenged patients ages 60 to 65 at the free clinic, what is the impact of providing transportation for 3 months on the rate of no-show appointments?

Purpose Statement

The purpose of this research was to determine if offering and providing transportation would decrease the number of no-shows, no-call, and cancelled prescheduled missed appointments for the 60– to 65-year-old population served by the free clinic. A decrease in no-shows would enable the clinic to fully use its resources. The intervention for this project, supplied transportation, would also help determine the best course of action to decrease the no-shows and hopefully increase the health of the population using the clinic.

Organizational Readiness for Change/Culture

The SWOT analysis (strengths, weaknesses, opportunities, threats) for this project identified beneficial and adverse issues and circumstances. The analysis fostered a resolution to existing challenges in a focused manner and in which the PI recognized the issues faced to formulate a quality improvement plan (Zhou et al., 2021). Strengths were the desire of the clinic to arrive at solutions, readiness of the clinic to supply data to the PI, and explore alternatives to the current practice. A primary weakness was the large area that the clinic serves. The county is 280 square miles, and the clinic serves half of the county, approximately 479,553 people (Pinellas County Florida, 2022).

An opportunity was the offer of a convenient public transportation service for residents 60 years old and older to the clinic to reduce no-show appointments. Two major threats appeared. First was the current lack of public transportation, and second was the lack of funding and partners for alternative transportation.

Overview of Theoretical Framework/Conceptual Model

In 1980, Pender established the Health Promotion Model (HPM). This theory integrates nursing theories with behavioral disciplines for health promotion (Cardoso et al., 2022; Pender et al., 2006). The HPM was a natural fit for this project because it considers the behavior of the patients who choose not to show up for their appointments.

Health promotion has remained an essential principle in the concept of health that focuses on measures to enhance a population's quality of living (Cardoso et al., 2022). Pender's Health Promotion Model was founded as a plan to incorporate nursing theories with behavioral disciplines, centered on the model of health promotion. The HPM centers the idea of health promotion on behaviors and actions that sustain or increase a person's health (Cardoso et al., 2022; Pender et al., 2006).

Pender's Health Promotion Model

Pender's HPM is focused around three points: the individual experiences of patients, their comprehension of the importance of healthcare, and their attitudes about the actions they want to take to achieve the preferred healthy action (Cardoso et al., 2022). Pender's model views the person with five contributing factors. The first is that the individual is partly molded by circumstances and seeks settings in which to easily communicate about the importance of healthcare. The second factor is the environment, including the social, cultural, and physical location in which a person's life develops and

can be influenced to enable healthier actions. The third factor is the nursing environment, in which nurses work together with the public, individuals, and groups to generate an atmosphere that encourages health and well-being. The fourth factor is health, incorporating actions that include self-care, fulfilling relations, and approaches that encourage a beneficial and organized environment. And the fifth factor is illness, sudden or long-term, that can delay or ease the acceptance of healthy approaches (Bittencourt et al., 2018).

Application of Theoretical Framework to Evidence-Based Practice Intervention

Application of Pender's Health Promotion Model to this project assisted the staff of the clinic, the project PI, and the patients in the promotion of healthcare, with specific reference to showing up for scheduled appointments. As noted, approximately 20% of the patients in the clinic per month did not keep their appointments due to transportation issues (CFC, 2021). The emphasis on promotion to health assisted all involved parties in understanding the reasons why the vulnerable older patients are missing appointments without calling or cancelling. Use by the staff of Pender's key points assisted them in understanding how to promote health and wellness choices to increase patients' decisions about appearing for their appointments. With this model, the staff encouraged health promotion behaviors and educated the patients on the importance of keeping their appointments.

Definition of Practice Change Concepts

Health behaviors should be encouraged even if no active disease processes are being treated. People need to be educated on health promotion and screening that take place at appointments; screening can prevent serious illnesses (Ruggeri et al., 2020). Behavior modification focused on keeping appointments need to start with the staff at the clinic and their emphasis on the importance of the appointments**.** Providing transportation to the patients missing appointments will encourage their better health behavior as they appear for their scheduled appointments.

Significance of Evidence-Based Quality Improvement Project

Patients not showing up for appointments can create increased health issues because patients' new or underlying illnesses may not be identified and therefore cannot be managed. A financial aspect is also involved in keeping appointments. Not calling and not showing up for appointments or cancelling in timely fashion, at least 24 hours prior to the appointment, decreases the number of patients who can use the healthcare facilities at the clinic. No shows also leave paid staff and volunteer staff with open time slots that could be used for something healthcare undertakings (Triemstra & Lowery, 2018).

Practice

Evidence shows that continuity of medical care on a regular basis can improve a person's health (Ljungholm et al., 2021). When people do not show up for their scheduled appointments, their health can be endangered, with profound consequences. The practice at the clinic prior to 2021 was to discharge patients who did not show up for their appointments. However, according to the CEO, this action was rarely taken. The current practice is that for one no-show/no call individuals receive warnings in the file,

for two they are not allowed to receive medications from the internal pharmacy at a very reduced price for 6 months, and for three they are discharged for a year.

Healthcare Outcomes

The DNP project outcomes were considered met if the no-show appointments in the clinic population of patients between 60 and 65 were reduced by 10% from the current 20% monthly because of the addition of providing transportation. The clinic performs a survey every May tracking transportation issues in maintaining appointments. A report can be printed monthly to determine if a decrease in no-show appointments has taken place; however, this report will not show why the decrease took place.

Healthcare Delivery

Despite the provision of transportation to patients, they will need to be responsive to the staff. The staff will not know if the patient has a transportation issue, or if it is being met. Therefore, the patient will need to inform the staff that they will or will not attend at least 24 hours in advance of their appointment.

Healthcare Policy

The clinic's services are based on donations from private and business sources as well as grants from private and government entities that the clinic must apply to for delivery of care. The clinic provides care to the people who do not qualify for Medicaid or Medicare and are unable to afford insurance. The staff documents ICD-10 codes to track medical issues being treated. However, the clinic is not affected by most governing agency protocols and policies.

The clinic also has a policy, in place for many years, that three no-show/no call appointments can lead to dismissal from the clinic. However, due to an increase in no-

shows to scheduled appointments, the clinic recently changed the policy, as noted above. The policy is now that for one no-show the patient receives a warning, for two no-shows, the patient cannot receive prescriptions at the pharmacy in the clinic, and for three the patient is dismissed from the clinic for a year. To restore full benefits to a patient at the two no-show level, the patient must keep all appointments without a no-show for 6 months after the penalization.

Summary of Chapter One

No-show appointments are a worldwide problem and can create increased healthcare issues for patients and increased financial issues for institutions (Alawadhi et al., 2021). Transportation is one of the top five reasons for no-show appointments (Brown et al., 2020; Crutchfield & Kistler, 2017). The annual survey completed by the CFC clinic also attests to this fact.

The CFC has many indigent and senior patients who have difficulty obtaining transportation, and the no-show appointment rate has recently been 20% per month. This percentage leads to dangerous health conditions for the patients, waste of personnel's time and resources, and missed opportunities for other patients to have services. Many patients are 60 to 65 years old, with multiple chronic health issues.

Pender's (Pender et al., 2006) Health Promotion Model was used to assist the staff with educating patients on the importance of keeping their medical appointments. The education would also encourage positive change and better health behavior in the patients. The goal for this project was to decrease no-show appointments for this population from 20% per month to 10% over 3 months by the offer of free public transportation to and from appointments as needed.

Chapter Two: Review of the Literature

Any quality improvement project must be grounded in empirical literature (Polit & Beck, 2020). A number of studies have been conducted on no-show appointments at clinics. Most of the studies focus on transportation issues and resolution of these issues. This chapter reviews recent research related to no-shows, including transportation and other issues, with pertinent databases, search terms, and parameters for choice of literature.

Question Guiding Inquiry

The question guiding the inquiry of this project was this. For transportation-challenged patients ages 60 to 65 at the free clinic, what is the impact of providing transportation for 3 months on the rate of no-show appointments?

Search Strategies

An extensive review of the literature was performed to obtain the latest research on why patients do not show up for their clinic appointments. The databases used were CINAHL Complete, MEDLINE with Full Text, and Nursing & Allied Health Collection: Comprehensive. Databases were accessed primarily through the Nova Southeastern University Library. The search terms used were the following: *did not attend, free clinic, free medical clinic, free medical care, missed appointments, no-show,* and *transportation infrastructure.*

Over 30 articles were obtained and reviewed by the PI for relevance to the study topic. Articles were chosen in English only, from peer-reviewed journals, and from 2017 to 2020, which was before the COVID outbreak that could have skewed information and

results. Articles from nonpeer-reviewed journals, in other than English, with small samples were rejected. Ten articles were chosen as highly relevant to the topic.

Literature Review Findings

The review of the literature was focused on patients' missed appointments. Common themes found were transportation issues, physically unwell, work and family issues, and other miscellaneous issues. A literature review matrix of these articles appears in Appendix C.

Transportation Issues

Several articles mentioned transportation issues as a major theme for patients not making their scheduled appointments in healthcare clinics. Chaiyachati et al. (2018) offered transportation to 786 Medicaid beneficiaries who resided in West Philadelphia and were established primary care patients at one of two academic internal medicine practices. The transportation offer was continually declined, indicating that transportation was not an issue in this area. Brown et al. (2020) sought to determine why people were missing appointments, and the authors found that transportation was an issue. Their research resulted in a plan for the following year to provide transportation to the clinic. However, no follow-up was carried out.

Crutchfield and Kistler (2017) conducted an online survey of adults nationally and determined that two major issues were the causes of patients missing appointments: transportation and appointment reminders. The researchers concentrated on appointment reminders and found that they had the potential to increase appointment attendance (Crutchfield & Kistler, 2017). Briatore et al. (2019) completed a case study and two control studies in a hospital in Buenos Aires. The choice for this population was a

tailored and mixed approach based on patient needs. This institution is a high-complexity university hospital in the autonomous city of Buenos Aires. The hospital operates as an integrated health network, with 18 outpatient health care centers, two hospitals, and more than 2.5 million annual outpatient scheduled appointments. With such large numbers, multiple reasons were found for people not showing up for appointments. One was transportation issues. However, no plan for addressing the no-shows or results were reported.

Physically Unwell

Possibly ironically, being physically unwell was another reason for patients' their inability to make their scheduled appointments. It is unclear whether their condition was the main cause or if it caused another issue, such as inability to walk to the clinic (Brown et al., 2020). Other reasons identified were not having finished diagnostic testing before the appointment, not knowing the provider, feeling ill at the time of the appointment, unforeseen obligations, work-related obstacles to attend, and conflict with the time of the appointment. Unfortunately, patients with these issues generally need the healthcare assistance the most.

Work and Family Obligations

The working poor often miss appointments because of work and family obligations. Most of this population will choose to go to work over other activities because of their financial needs. If family members need their attention, they are likely to skip medical appointments to provide the needed attention (Briatore et al., 2019; Brown et al., 2020).

Other Issues

Several other issues were highlighted in the literature. One was the type of messaging patients preferred to receive. In Canada, electronic health records are relatively new, and the ability to create appointments and receive appointment reminders this way has decreased the number of no-shows to the clinics (Graham et al., 2020). In Texas, Anthony et al. (2019) found that text messaging decreased the number of no-shows at a large HIV clinic.

Another issue is severe weather. In Taiwan no-shows increase during heavy rainstorms in the rainy season (Tsai et al., 2019), an issue not found in any other research reviewed. The day of the week can also have a bearing. Triemstra and Lowery (2018) determined that appointments scheduled for Mondays had a 21% missed appointment rate.

Literature Review Synthesis

All articles reviewed were focused on patients not showing up for their scheduled appointments at clinics for primary care. The major issues were transportation, unwellness, and work and family demands. Similar themes were found as those that occur around the world, such as transportation issues, work issues, and family problems that can affect a patient keeping the clinic appointment. There are also outliers based on culture and area of the research conducted, as in the Taiwan example (Tsai et al, 2019).

Literature Strengths and Weaknesses

The literature reviewed showed patients' similar significant issues when attempting to keep their clinic appointments. A strength of the literature was that the results are similar, wherever the research was conducted and whatever the cultural

differences. Another strength was the amount of people involved in the research at the different institutions, from 251 to 160,146. Further, the research was extracted from level II to level IV articles with moderate to high scholarly rigor that provided several approaches to the study of transportation for patients and missed appointments.

A major weakness of the articles was that skewed information was available after 2020 due to the global COVID-19 outbreak. From 2020 to 2022, during the height of the pandemic, patients apparently did not go to clinics but relied on televisits for medical care (Gant-Farley et al., 2021). Thus, little research exists for these years, and televisit records could not be used because they did not meet the parameters of this project.

Literature Gaps

A noticeable gap in the research was that no articles were located for no-shows at free clinics in any setting. All research found took place with primary care for-profit clinics in large areas. Such research overlooks small clinics supported by alternative, nongovernmental funding in smaller areas not in major cities or funded by educational entities.

Utilization of Findings for Intervention

One of the most frequent reasons found for patients missing appointments at clinics was transportation issues. The research thus lends credibility to the issue of providing transportation to the clinic for this project to help reduce no-show appointments. The review of the research and the methodologies involved pertaining to transportation to the clinic should assist in providing transportation solutions to the 60-65 clinic population at CFC.

Summary of Chapter Two

Ten articles were reviewed to support the project and explore reasons for patient no-shows. The articles indicated that the issues are similar in other countries, despite geographical and cultural differences. The gap of research data from 2020-2022 shows that, during the height of COVID-19, people did not go to clinics but used televisits; these records were not appropriate for the present project.

Common reasons for no-shows were found. Major reasons were lack of adequate transportation, feeling ill, work and family obligations, and other issues such as severe recurring weather (Briatore et al., 2019; Brown et al., 2020; Crutchfield & Kistler, 2017; Tsai et al., 2019). A major strength of the literature was the reporting of similar results across populations and cultures. However, in addition to the gap because of COVID, a primary weakness and gap was that the research sites were all primary care for-profit clinics in urban areas. Nevertheless, transportation issues was emphasized in all studies and provided the research support for this project.

Chapter Three: Methodology

Transportation issues are a major cause of prescheduled missed healthcare appointments. Missed appointments can have negative ramifications in patient health and continuity, other patient opportunities, use of staff resources, and clinic financial status. The goal of this project was to improve appointment adherence in free clinic appointments at a Central West Florida clinic among patients ages 60 to 65 who had missed many appointments.

These patients lived below the poverty level, could afford insurance, and did not meet the criteria for government assistance. Provision of free transportation was arranged for 3 months for these patients. The guiding question was this: For transportation-challenged patients ages 60 to 65 at the free clinic, what is the impact of providing transportation for 3 months on the rate of no-show appointments?

Purpose of the Project

The purpose of this project was to determine if offering and providing transportation to the free clinic patients who were 60-65 years old would decrease the number of no-shows, no-call, missed, and same-day-canceled appointments for this population. Increasing the rate of appointments would provide better care to the patients and enable the clinic resources to be used fully. With positive results (that is, the number of no-shows decreased), the clinic could then determine the best course of action to decrease no-shows on a continuing basis. Such results would potentially improve the health outcomes of the clinic population.

Design of Intervention and Methodology

The intervention for the project was provision of free transportation (Neighborly Care Transportation Services) for the target population. This was a retrospective study, with use of a quantitative methodology: calculation of patients' missed appointments pre- and postintervention of provision of transportation for appointments to the clinic over 3 months. A *two proportions z-test* was used to determine the number and possible significance of the differences in attendance rates before and after the intervention.

Planned Intervention Implementation

The plan to implement this project was to provide free transportation to clinic patients between 60 and 65 years old to determine if there was an improvement in their appointment no-show rate at the clinic. Based on the survey completed by the clinic in 2020, 20% of the clinic participants per month had transportation issues. The literature review also showed that a lack of transportation is a major cause for patients not showing up for their appointments, an issue for clinics around the world (Alawadhi et al., 2021).

The CFC staff implemented the offer of transportation to the target population. At the time appointments were made, a staff member inquired if transportation was needed through Neighborly. Neighborly is a Pinellas County community program that provides the elderly with growing programs to "improve health, wellness, and independent living for individuals and families" (Neighborly, 2018, para. 1).

One of the Neighborly programs is transportation for healthcare reasons. If transportation is or might be needed, then the patient completes a request for Neighborly and can then call to make the pickup appointment based on the need to arrive at the next planned medical appointment at the clinic.

At the time patients made their appointments, they were educated about the importance of keeping their appointments. The staff used Pender's HPM to inform the patients about how to experience positive appointments, the importance of continuity in their healthcare, and their attitudes about cooperating in their own best interests for their improved health. The staff members also encouraged questions and invited the patients to contact them for additional questions.

Expected Outcomes

The expected outcome for this project was that the no-show appointments of the 60- to 65-year old patients at CFC would decrease by 10%. As noted, the most recent no-show rate per month was 20% in 2021. This information was provided by the clinic.

Setting

The project was completed at a free clinic in Central West Coast Florida that services five hospitals, seven emergency rooms, and a large homeless population. Based on the latest 2021 data from the State of Florida (The Council, 2021), there are over 2,000 individuals in the service area. The clinic provides care for patients who live in this area, ages 18-65 and when eligible for Medicare. The clinic do not accept patients who have insurance, and patients must be within the federal poverty guidelines to be eligible for care (ASPE, 2022).

Sample

The sample population was a convenience sample. It consisted of all patients in the clinic ages 60-65 who had scheduled appointments during the implementation period of 3 months.

Inclusion/Exclusion Criteria

The inclusion criterion for the project was all clinic patients ages 60-65 who needed transportation to attend their clinic appointments. Exclusion criteria for the project were all clinic patients who do not need transportation to attend their clinic appointments and patients who were not between 60 and 65 years old. Staff and volunteers at the clinic were also excluded from the sample.

Determination of Sample Size

The sample size was all patients ages 60-65 with appointments at the clinic during the project timeframe of 3 months, January through March. The records for January were preimplementation, and the records for February and March were postimplementation. The sample population could include up to 1,000 people during this timeframe; a total of 300 was estimated.

Ethical Considerations

Patients' HIPAA privacy rights were respected throughout the project. All data Excel sheets received from the clinic with patients' information were secured with Bitlocker device encryption on a universal serial bus (USB) drive. All identifying patient information was removed. When not in use, the USB drive was locked in the PI's desk, accessible only to her. The Excel sheets of data were also encrypted with a secure phrase.

No authorization was needed from the patients whose data were used because this was a retrospective review comparing preimplementation data to postimplementation data. However, the PI suggested a form with information on how to opt out of the study. This form was not included because the Nova Southeastern University IRB advised it was not necessary. IRB approval was received, with exempt status (Appendix A).

Recruitment Procedure

There was no official recruitment procedure. Participants were identified by the data Excel sheets received from the clinic. Data in the Excel sheets included preimplementation and postimplemetation patients who did not make their prescheduled appointments.

Data Collection Procedures

Preintervention data collection was completed at the clinic with use of its electronic medical record system, MDRhythm. This system provides lists of patients based on requested criteria. For this project, the PI examined the data for patients who did not show up for their prescheduled appointments. After implementation, similar postintervention sheets were sent by the clinic, and the PI examined them and calculated the pre- postintervention statistics.

Instrumentation

No instrumentation was necessary for this project.

Validity and Reliability of the Instruments

Because the project did not use any form of instrumentation, no validity or reliability results are reported.

Data Analysis

Data from the preimplementation and postimplementation were analyzed with an online statistical software program, Intellectus (2022). This program was used to complete a two proportions *z*-test to compare the group preintervention and postintervention patient records of missed appointments to determine the change, if any, that took place based on the intervention provided.

Budget

All transportation provided was granted to the clinic in cooperation and coordination with Neighborly. The clinic already had the electronic program that provides the data information in an Excel sheet. The administrative assistant at the clinic requested and sent both the preintervention and postintervention data to the PI. The cost was approximately $10 a month for 3 months. The free clinic pays this expense as part of the salary for the administrative assistant**.**

Project Management

Project management has become an important industry skill; utilizing project management can improve expenses, decrease risks, and enhance outcomes (Miller, 2019). A major guideline for project management is the Model for Improvement, established by Associates in Process Improvement in the 1990s. This model has subsequently been supported and promoted by the Institute for Healthcare Improvement. The model summarizes quality improvement into three inquiries: What do you want to improve? What will you change to create an improvement? How will you know that improvement has been made (National Health Service [NHS], 2021)?

Process

The PDSA framework consists of four stages and is begun after the Model for Improvement is completed. In each stage, crucial actions must be completed and important elements should be produced (Miller, 2019). *Plan* takes place when the decision is discussed and made about what to change and how to measure the change. *Do* is the stage at which the change is implemented. *Study* is centered on the detectable results decided on at the Plan, the collection of data before and after the implementation,

reflection on the effect of the implementation, and what was found. *Act* is a decision, depending on the results of the study, to continue the intervention. After the *Study* segment, which is identification of whether the implementation was successful, the Act process is the full implementation of the process that was created. The PDSA stages may be ongoing in a linear manner or even concurrent (NHS, 2021).

Interprofessional Collaboration

For this study, interprofessional collaboration took place with many different entities inside and outside of the clinic. Collaboration with the staff at the clinic was the first step to determine the need for transportation for their clientele. The need for transportation without cost created the need to collaborate with outside entities that already delivered transportation in the clinic area. The clinic staff then collaborated with the patients, the prime stakeholders, to determine whether they needed transportation. If they did, the clinic staff informed them how to access transportation. Finally, collaboration was necessary between the clinic staff and the PI to complete the project.

Information Technology

The technological tools used for this project were the clinic EMR MDRhythm and Intellectus (2022) statistics. The EMR for the clinic was utilized to produce the monthly data on the number of patients who did not show up for their prescheduled appointments. Intellectus was utilized to compare the statistical data on the no-shows before and after the implementation of transportation.

Data Management and Storage

The HIPAA information for each patient in the files—name, phone number, and date of birth—was removed prior to the clinic sending the data to the PI. The data from

the clinic were received via Outlook with the secure sending feature of the program so that the file could only be opened by the PI. The data was then removed from email and transferred to a USB drive secured by a Bitlocker encryption program. The data file was further secured with a file password known only to the PI.

Following the study, the PI stored the data on the USB drive. The drive was stored in a secure locked cabinet to which the PI alone has access. Per Nova policy, the data will be stored for 5 years and then destroyed.

Summary of Chapter Three

This chapter described the design and methodology of this quality improvement project at CFC. A retrospective quantitative design was used to determine whether the intervention of free transportation affected the number and percentages of no-shows of the target population (all clinic patients 60-65 years old) for prescheduled appointments at the clinic. The statistical procedure used was an independent *two proportions z-test* to compare the number and percentages of no-shows prior to the intervention and 3 months later. The expected outcome was that the no-shows would decrease by 10%.

All ethical considerations were maintained, including HIPAA privacy for patients and security methods for transfer of data to the PI. The project was guided by the Model for Improvement (NHS, 2021). It was hoped that the implementation of free transportation to the target population would help these patients to receive and clinic staff to deliver the needed care with scheduled appointments that are kept.

Chapter Four: Results and Discussion

No-show appointments are a problem around the world and can create increased healthcare issues and increase financial issues (Alawadhi et al., 2021). Transportation was one of the top five issues for no-show appointments according to the literature review completed for this project and the survey completed by the clinic annually (Briatore et al., 2019; Brown et al., 2020; Crutchfield & Kistler, 2019). The goal for this project was to decrease no-show appointments by offering access to transportation to and from appointments as needed for patients between 60 and 65 years old.

Pender's Health Promotion Model (HPM) was used to encourage the change in the patient and to assist the staff with changing the patients' education on why it is important to keep medical appointments. In 1980, the HPM was established to allow integration of nursing theories with behavioral disciplines to promote the idea of health promotion (Cardoso et al., 2022). The HPM was a natural fit for this project because it considered the behavior of the patients that made them choose not to show up for their appointments. The patients were educated on the importance of screening, maintaining consistent care, encouraging adherence to the plan of care, and decreasing identified barriers to attending appointments, including transportation.

Participant Demographics

The sample population was all patients ages 60 to 65 in the clinic who had scheduled appointments during the implementation timeframe of 3 months. From the clinic records, a total of 1,010 patients had appointments during this time. Demographic information was suppressed to protect the participants.

Expected Outcomes

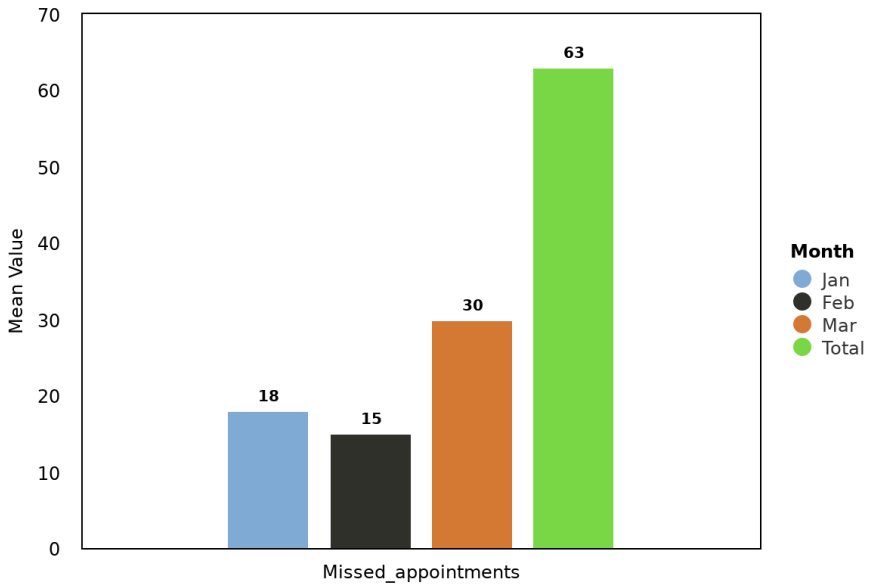
The expected outcome for this project was that the no-show appointments of the 60– to 65-year-old patients at the free clinic would decrease by 10%. As noted, the most recent no-show rate per month was 20% in 2021. No records were kept after this date.

Evaluation of Outcomes

The results did not show a significant change in no-show appointments from the preimplementation month of January to the postimplementation months of February and March for patients ages 60-65 years old. In the preimplementation month, no free transportation was offered, and in the postimplementation months free transportation was offered. Figure 1 shows the number of missed appointments for each month.

Figure 1

Number of Missed Appointments per Month and Total



Descriptive statistics were calculated for the preimplementation and postimplementation data. Table 1 shows the number of appointments per period and the percentages of no shows.

Table 1

Number and Percentage of Appointments and No Shows per Month

Month	Total Appointments	No Shows	Percentage of No Shows to Total Appointments
January	319	18	5.6%
February (15) March (30)	691	45	6.5%

As Table 1 illustrates, there was little difference in the numbers and percentages of no shows between the preimplementation and postimplementation periods. January (pre-) and February (post-) were very similar in number, and March was the highest in number. Further, a slightly greater percentage of no shows was evident in the postimplementation period.

In explanation, it is possible that patient education was insufficient, based on the HPM, to persuade patients to keep their appointments, whether or not they had access to free transportation. In addition, it is also possible that factors other than transportation prevented patients from keeping their appointments. As the literature shows, such factors could be physical illness and work and family responsibilities (Briatore et al., 2019; Brown et al., 2020).

Pender's (1980) HPM is composed of five factors. The individual is partly molded by circumstances; is influenced by the social, cultural, and physical environment; is influenced by the nursing environment; and seeks settings in which to easily communicate about the importance of healthcare; the individual's health; and the individual's illness (Bittencourt et al., 2018). When clinic patients made their

appointments, staff members educated them on the importance of these factors as applied to their own situations. The staff pointed out the importance of continuity of appointments for ongoing care and the patients' wellbeing and health goals. However, apparently this education was not sufficient for patients to show up for their appointments.

To test for possible significant differences, a two proportions *z*-test was conducted for the January no shows and February-March no shows (Pituch & Stevens, 2015). The sample sizes, January = 319 and February-March = 691, indicated that the central limit theorem applies, and normality can be assumed (Kwak & Kim, 2017). Table 2 shows the results.

Table 2

Two Proportions z-Test for Difference Between Preimplementation and Postimplementation

Month	Total	No Shows	SD	Proportion	*z*	*p*
January	319	18	0.23	.06		
February-March	691	45	0.25	.07		
					-0.54	.586

$p < .05$.

The results of the two proportions *z*-test in Table 2 show no significant difference between the preimplementation and postimplementation no shows. The proportions of no shows are similar. There was no significant difference ($p = .586$).

Discussion

The project was completed at a free clinic in Central Florida. There are over 2,000 individuals in the service area based on the 2021 data from the State of Florida (The Council, 2021). The clinic provides care for patients who live in this area, ages 18-65 and when eligible for Medicare. The clinic does not accept patients who have insurance, and patients must be within the federal poverty guidelines to be eligible for care (ASPE, 2022).

Strengths and Weaknesses

This project had several strengths and several weaknesses. A major strength was that the project required no funding from the clinic and was a minimally burdensome implementation for staff, in addition to their regular duties. Another strength was that the patients had to initiate the process of making appointments after receiving the information. As a strength, this process allowed for patient autonomy and accountability. However, accountability of the patients to complete the process could also be seen as a weakness when they did not follow through.

Another weakness was that the transportation only was available to patients between 60 and 65 years old. Therefore, this demographic did not allow for a complete evaluation of all clinic patients on the transportation issue and did not provide a complete picture. Additionally, other variables may have caused patients not to show up for their appointments, as noted above. These were not considered or accounted for in this project, and future research is recommended.

Limitations

This project had several limitations. The initial analysis was based on pre-COVID information prior to 2021. No method was available to follow up on the patients who did not show up for appointments to determine why they did not attend. Additionally, there was no way to determine how many people were provided with the information on free transportation and the number of people who did call for free transportation. As mentioned, no method was available to confirm that a transportation issue was the reason for the no show appointments for patients ages 60-65 years old.

Implications for Nursing Practice and DNP Essentials

The DNP-equipped nurse uses skills that combine scientific proof, administrative knowledge, management, business intelligence, informatics ability, and policy exploration. However, use of these recently learned skills requires application of opportunities in advanced practice positions to affect outcomes for patients, residents, organizations, and policy. These outcomes then impact the advanced nursing education base and practice vital for the profession (Kesten et al., 2021).

Scientific Underpinnings for Practice

The DNP Essentials are important because they provide a framework for the scientific underpinnings of advanced nursing practice. They outline the foundational competencies that all DNPs should possess, including clinical scholarship, evidence-based practice, and leadership. By adhering to these competencies (American Association of Colleges of Nursing [AACN], 2018). DNPs can ensure that their practice is based on the most current scientific research and best practices, leading to improved patient outcomes and the advancement of the nursing profession as a whole (Menonna-Quinn & Tortorella Genova, 2019).

DNP Essentials II, III, and VI were vital elements for this project to determine what literature to research. The current and future needs of the population had to be evaluated and based on literature research. The research then needed to be critically evaluated and used to design and implement a process of change. Collaboration with the clinic and the transportation agency was needed to provide transportation for the patients to arrive at the clinic for their appointments.

Organizational and Systems Leadership

The CEO of the clinic has a transformational leadership style. Transformational leadership is a management method that engenders a transformation in individuals and community systems. This style produces important and positive transformation, with the objective of developing followers into leaders. Transformational leadership increases the inspiration, optimism, and implementation through many processes (Reinhardt et al., 2022). As transformational leaders employ effective shifts of culture with staff, they use communication, personality, flexibility, and compassionate corroboration. Transformational leaders encourage people to go further than discussions and incentives. This method can improve a group's underlying motivation by communicating the importance and intention behind the organization's objectives (Aydoğdu, 2022).

For the present project, the CEO was instrumental in its completion. The CEO encouraged the PI and made staff available. The CEO also informed the PI of many resources to implement the free transportation.

Clinical Scholarship and Analytic Methods

The DNP must meet certain requirements to achieve the credential of DNP and become a healthcare leader. The DNP must be knowledgeable in policies, evidence-

based practice, quality, service, and administrative procedures. These skills make the DNP extremely skilled at sharing knowledge and evidence-based practice.

Healthcare Policy for Advocacy in Healthcare

A DNP degree prepares nurses to design, influence, and implement healthcare policies. DNP nurses can serve as leaders in shaping healthcare policies and advocating for healthcare issues. They can also influence and shape policies that influence the practice of nursing. DNP nurses can use their leadership skills to influence and facilitate change in the workplace.

Advocacy and the political skills learned make the DNP-prepared nurse an organizational advocates for the population in a given area (Sherrod & Goda, 2016). Intelligent and forceful advocacy can bring increased funding, grants, and equipment to a healthcare institution. These are needed for nurses to deliver optimum patient care to a range of populations.

Nurses can also advocate for improved procedures that affect patient care or serve as catalysts to implement new policies based on research and evidence-based practice (Wiley University, 2019). The DNP-prepared nurse is skilled at navigating the complexities of healthcare, evidence-based practice, and politics. DNPs learn to communicate on different levels in different local languages to achieve results that bridge gaps in the needs for the community (Root et al., 2020).

With reference to the present project, the PI developed advocacy skills. They were needed to access the clinic records, understand the problem, and obtain cooperation from the staff. Further, the PI needed self-education and knowledge about the provision of free transportation from the city and sponsors.

Interprofessional Collaboration

For this study, interprofessional collaboration took place with many different entities within and outside the clinic. Collaboration with the staff at the clinic was the first step to determine the need for transportation for their patients. The need for transportation without cost created the need to collaborate with outside entities that already delivered transportation in the clinic area. The staff then collaborated with the patients, the prime stakeholders, to determine whether they needed transportation. If they did, the clinic staff informed them how to access transportation. Finally, collaboration was necessary between the clinic staff and the PI to complete the project.

Clinical Prevention and Population Health

Patients who miss their appointments may be placing themselves at risk for increased health issues. Evidence shows that continuity of medical care on a regular basis can improve a person's health (Ljungholm et al., 2021). When people do not show up for their scheduled appointments, their health can be endangered, with profound negative consequences. Health promotion has remained an essential principle for nurses in educating patients and delivering care that enhance patients' quality of life.

For this project, education of patients was important to impress on them the importance of keeping their medical appointments for adherence to regimens and health goals. It is possible, as noted, that the educational component was not forceful enough. Possibly other methods could be used for patients to meet their appointments. As the literature showed, for patients with cell phones, text message reminders were effective (Anthony et al., 2019; Crutchfield & Kistler, 2017). Possibly also community meetings could be arranged.

Advanced Nursing Practice

The role of the DNP in practice is to translate the evidence produced into the practice area. The DNP could lead clinical teams, assist in creating evidence-based standards for treating chronic and acute diseases, and give conference presentations of research. The DNP at the bedside understands where the gaps are in care for the individual and the population (Walker & Polancich, 2015). An important aspect of the DNP role is to find, develop, produce, and integrate evidence-based practice into the clinical area, converting the complex into understandable, practical, and usable clinical methods.

The DNP cannot do this alone but needs a multidisciplinary team to understand the reasons for an issue, the steps of a process, changes in the process, and alterations of the process if necessary for greater effectiveness. An example is implementation of a nurse-led palliative care assessment tool in an intensive care unit. The DNP would need to obtain the results of implementation and then discuss the outcome with the multidisciplinary team to determine the next steps in the change or whether a new implementation would be needed with a different viewpoint and grounding (Martz et al., 2020). In the present project, a multidisciplinary team was necessary for completion, and the PI, CEO, and clinic staff are in discussions about next steps to decrease the patient no shows for the entire clinic population.

Final Conclusions

The purpose of this retrospective quality improvement project was to determine if offering and providing transportation would decrease the number of no-shows, no-call, and cancelled prescheduled missed appointments for the 60– to 65-year-old population

served by the free clinic. The decision to provide transportation to improve the no-show issue was a collaborative one with the clinic staff based on the annual survey and evidence-based information discovered in the literature review. Analysis of the results showed no significant decrease of no-shows in the target population when free transportation was provided.

Nevertheless, lack of adequate transportation could still be an issue because a large part of the clinic population was not provided with free transportation. Further research is called for with more extensive patient education, more tracking of no shows, and more availability of free transportation for the clinic patients. Through such efforts and with adherence to the DNP Essentials, the clinic nursing staff can deliver adequate care to clinic patients to help them resolve their health issues and reach their health goals.

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Appendix A

Nova Southeastern University IRB Letter of Approval

I.

MEMORANDUM

To: Bari Berger
Ron and Kathy Assaf College of Nursing

From: Laura Smith
College Representative, Ron and Kathy Assaf College of Nursing

Date: December 7, 2022

Subject: IRB Exempt Initial Approval Memo

TITLE: What is the impact of providing transportation for transportation-challenged patients who seek care at free clinics on rates of no-show appointments?– NSU IRB Protocol Number 2022-538

Dear Principal Investigator,

Your submission has been reviewed and Exempted by your IRB College Representative or their Alternate on **December 7, 2022**. You may proceed with your study.

Please Note: Exempt studies do not require approval stamped documents. If your study site requires stamped copies of consent forms, recruiting materials, etc., contact the IRB Office.

Level of Review: Exempt

Type of Approval: Initial Approval

Exempt Review Category: Exempt 6: Consumer preference for foods or beverages

Post-Approval Monitoring: The IRB Office conducts post-approval review and monitoring of all studies involving human participants under the purview of the NSU IRB. The Post-Approval Monitor may randomly select any active study for a Not-for-Cause Evaluation.

Annual Status of Research Update: You are required to notify the IRB Office annually if your research study is still ongoing via the *Exempt Research Status Update xForm.*

Final Report: You are required to notify the IRB Office within 30 days of the conclusion of the research that the study has ended using the *Exempt Research Status Update xForm*.

Translated Documents: No

Please retain this document in your IRB correspondence file.

CC: Laura Smith

Kim Whitea

Appendix B

Letter of Permission to Conduct Study from Clearwater Free Clinic

CLEARWATER FREE CLINIC

Health care for
uninsured families

November 28, 2022

To whom it may concern,

The Clearwater Free Clinic (CFC) provides access to integrated healthcare to the low-income uninsured families for acute and chronic medical issues by means of volunteerism, community financial support and community partnerships. The clinic, a volunteer driven non-profit, non- government medical facility, provides health care at no cost to those who do not qualify for government assistance and cannot afford private medical care. Those who qualify financially and live in mid or upper Pinellas County are eligible for Clinic services, which include but are not limited to: *medical office visits, behavioral health assessments and counseling, medications, lab work, x-rays, specialty referrals, diabetic counseling, patient education and hospital based procedures.*

A problem that the CFC has encountered for many years is the number of patient no shows for scheduled appointments. This has a direct impact on the patient care provided and on the time commitment of the volunteer physicians. This letter is to inform you that Bari Berger, a Nova SE University Doctoral of Nursing and Family Nurse Practitioner Student and investigator, has my permission to conduct a study regarding "the impact of providing transportation on rates of no-show appointments for transportation challenged patients ages 60-65 years okl who seek care at free clinics."

Regards,

Jeannie Shapiro, CEO

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Appendix C

Literature Review Matrix

Author(s)/ Year	Level of Evidence	Problem/Population and Purpose	Intervention	Comparison (if any)	Outcomes	Use of Evidence
Triemstra, J. D., & Lowery, L. (2018)	. Level VI	Missed appointments in an academic adolescent medical clinic/ Purpose to locate the barriers	Retrospective chart review	Authors report that their information is similar to other studies	21.2% missed appointment rate. Monday had significantly higher rate than other days also the amount of time between the reminder and the appointment	To target schedule related risk factors to decrease revenue loss
Brown, E. E., Schwartz, M., Shi, C., Carter, T., Shea, J. A., Grande, D., & Chaiyachati, K. H. (2020)	Level III	Understanding Why Urban, Low-Income Patients Miss Primary Care Appointments/Purpose is to identify barriers of getting to the appointments	Semistructured interviews by telephone	The authors discussed that their research showed no in-depth interviews were ever completed so this was a gap.	There were three themes that emerged: transportation issues, personal health issues that made it difficult to attend the visit, and the need to go to work.	To come up with a plan for next year to help with the three themes
Tsai, W.-C., Lee, W.-C., Chiang, S.-C., Chen, Y.-C., & Chen, T.-J. (2019)	Level IV	Look at the factors of skipped appointments at the outpatient department of an academic medical center in Taiwan	cross-sectional study based on registration records	Comparisons were made to other studies	Online appointments had the highest no-show rates. Appointments for first visits had a higher no-show rate than those for non-first visits due to higher wait time. Heavy rains also showed 50% no-show rates.	Suggestions of better predictions of rain and over-book those days. The authors suggest enhanced healthcare delivery.
Crutchfield, T. M., & Kistler, C. E. (2017)	III	Appointment reminders may help reduce missed	National sample of adults from an online survey	Compared against other literature	Two primary reasons given for missing an appointment	Individuals indicated a preference for a single reminder, arriving via email,

		appointment types may be more effective than other types.	panel to complete demographic and appointment habit questions		include transportation problems and forgetfulness	phone call, or text message, delivered less than 2 weeks prior to an appointment
Graham, T. D., Ali, S., Avdagovska, M., & Ballermann, M. (2020)	III	Determine if an EHR portal would decrease no-show appointments	combination of longitudinal semi structured user surveys and administrative data audit	Compared 5 clinics and 1 EHR	53% relative reduction in the no-show rate seen in patient portal users	Increase EHR access via mobile apps and include caregivers in next research.
Drewek, R., Mirea, L., & Adelson, P. (2017)	IV	Goal of this study was to estimate no-show rates and test for association between appointment lead time and no-show rates for new and follow-up patients	cross-sectional retrospective study was performed	Scheduled within 30 days vs. scheduled greater than 30 days	The overall rate of no-shows was significantly lower at 23% for visits scheduled within 0 to 30 days compared with 47% visits scheduled more than 31 days prior	The template could be designed as a percentage of prebooked appointment, a percentage of new patient consultations, and a small percentage for same-day appointments.
Anthony, N., Molokwu, J., Alozie, O., & Magallanes, D. (2019)	IV	Assess the effectiveness of a text-based reminder system	Convenience sample looking at 2 periods, 6 months before initiation of text messages and 6 months after initiation of text messages.	Text messaging vs. non-text messaging	Text messaging showed a significant reduction in no-show rates 24.8% versus 17.7% of people who had no text messaging	Using an inexpensive online text messaging system, showed a decrease no-show rates
Briatore, A., Tarsetti, E., Latorre, A., Gonzalez Bernaldo de Quirós, F., Luna, D., Fuentes, N., Elizondo, C., Baum, A., Alonso	III	To identify causes of nonattendance of scheduled ambulatory medical appointments by adult patients	Case and two controls study nested in a prospective cohort. A telephone-administered	Compared against other literature	Forgetting, unexpected competing events, illness or unwellness, work-related inconvenience, transport-related difficulties, and resolution of issue.	Suggested a tailored and mixed approached based on the patient need. Also suggested another study

Serena, M., & Giunta, D. (2019)			questionnaire was applied			
Chaiyachati, K. H., Hubbard, R. A., Yeager, A., Mugo, B., Lopez, S., Asch, E., Shi, C., Shea, J. A., Rosin, R., & Grande, D. (2018)	II	To evaluate the association between rideshare-based medical transportation and missed primary care appointments among Medicaid patients	2 arms of the study, one arm were offered complimentary transportation to the appointment.	Used the literature to test their theory.	Uptake of ridesharing was low and did not decrease missed primary care appointments	Explore alternative delivery models or targeting populations with stronger transportation needs.
Ruggeri, K., Folke, T., Benzerga, A., Verra, S., Büttner, C., Steinbeck, V., Yee, S., & Chaiyachati, K. (2020)	IV	Identify predictors of no-shows, and to examine the effectiveness of the reminder for urban, low-income patients	Retrospective observational study using electronic medical record data from 11 facilities belonging to a New York City-based FQHC network between June 2017 to April 2018.	Compared against other literature	The strongest predictor of no-show rates in FQHCs is whether patients are assigned to empaneled providers, followed by lead time for appointments	Limited effects of the reminder intervention suggest the need for more personalized behavioral interventions to reduce no-shows