

Southern Illinois University Edwardsville

**SPARK**

---

Doctor of Nursing Practice Projects

School of Nursing

---


Spring 5-2020

## DNP Project: Improving No-Show Rates in Primary Care

Mai-Linh T. Nguyen

Sarah M. Kuzara

Follow this and additional works at: <https://spark.siu.edu/dnpprojects>

 Part of the [Health Information Technology Commons](#), [Health Services Research Commons](#), [Nursing Administration Commons](#), [Public Health and Community Nursing Commons](#), and the [Public Health Education and Promotion Commons](#)

---

### Recommended Citation

Nguyen, Mai-Linh T. and Kuzara, Sarah M., "DNP Project: Improving No-Show Rates in Primary Care" (2020). *Doctor of Nursing Practice Projects*. 104.  
<https://spark.siu.edu/dnpprojects/104>

This DNP Project is brought to you for free and open access by the School of Nursing at SPARK. It has been accepted for inclusion in Doctor of Nursing Practice Projects by an authorized administrator of SPARK. For more information, please contact [magrase@siue.edu](mailto:magrase@siue.edu).

**Improving No-Show Rates**  
**Mai Nguyen & Sarah Kuzara**  
**Executive Summary**

### **Introduction of the Problem**

Appointment adherence at the We Care clinic has a no-show rate of 50-60%, well above the national no-show rate of 23%. Currently, there are no up to date strategies to address this critical issue. Exploring the factors that contribute to the no-show rate is the initial step in the formulation of a plan to decrease the number of no-shows at the We Care Clinic.

Appointment adherence is the first step to optimal healthcare. It sets the foundation for both patient and provider. It is vital for patients to adhere to appointments because this leads to better disease control and better patient outcomes, (SolutionReach 2016). Appointments that are missed lead to many healthcare problems. Failure to show up to a primary care appointment leads to disruption of the core purpose of primary care, which is continuous quality care over time. Missed appointments are a major source of inefficiency in the medical system and can lead to poor control of chronic disease, presentation for care at later stages of the medical conditions, wasted health care dollars, and ineffective use of provider time (Kaplan-Lewis & Percac-Lima, 2013). With the national average of a 23% no-show rate, it is critical that barriers are identified and addressed to promote better appointment adherence.

### **Literature Review**

A systematic review conducted by George & Rubin (2003) examined common causes for no-shows and effective ways to reduce no-shows. They searched databases like MedLine, Embase, NHS National Register, and Cochrane Library. The search focused on the epidemiology of non-attendance and interventions for reducing non-adherence to primary care appointments. The studies that examined general appointments rather than screening appointments were included in

their study. Epidemiologically, they found patients who were most likely to miss their appointments were young, (17-40 years of age), from a low socioeconomic status, and lived in deprived areas. In addition, patients relying on state funding or who were self-pay were also less likely to show up for their appointments. Those with chronic illness or a perceived urgent health issue were more likely to present to their appointments. The researchers also found that phone reminders were effective in reducing no-show rates and were cost-effective for the practice.

A study by Lacy, Paulman, Reutter, & Lovejoy (2004) investigated the types of barriers patients reported that led to them not showing up to their appointment without notifying the clinic. They interviewed 34 patients at an outpatient clinic by asking open-ended questions. These issues listed by patients included emotions, perceived disrespect, and not understanding the scheduling system. The researchers found many patients experienced anticipatory fear and anxiety about possible procedures or bad news. These negative emotions overwhelmed the perception of benefit to seeing their providers. Some patients reported not feeling obligated to keep their appointment because they felt disrespected by the healthcare system because of feelings that healthcare providers did not respect their time or opinions. Other common barriers listed by patients in this study included trouble getting off work to make the appointment, child care, transportation, and cost. In addition, some patients did not show up because they either began to feel better or felt too sick to make it to their scheduled appointments.

Dantas, Fleck, Oliveira, & Hamacher (2018) conducted a systematic literature review of studies examining no-show rates and predicting factors. Their original search yielded 724 sources but was narrowed down to 105 after exclusion criteria. Exclusion criteria required the studies to look at no-shows strictly in the medical field, analysis of the issue, and potential interventions. The Scopus database was used to collect data using keywords like “no-show”. Only sources in English

were reviewed. Throughout their review, they found the average no-show rate is approximately 23%. Some of the most fundamental factors in predicting no-shows were short length of time between making the appointment and the actual appointment date and prior no-show history. They also found that patients of younger age, lower socioeconomic status, distance of residence from clinic, and no private insurance were all factors contributing to no-shows. In addition, patients with a psychiatric history, taking psychiatric medications, using tobacco, drugs, and/or alcohol all had higher no-show rates in comparison to those without these characteristics.

Robotham, Satkunanathan, Reynolds, Stahl, and Wykes (2016) conducted a systematic review using digital notifications to improve attendance in clinics. They aimed to assess the impact of text-based electronic notifications to improve no-show rates and ways to optimize the notifications. Data bases such as MEDLINE, EMBASE, PsycINFO, Web of science and Cochrane databases were used in this study. This study included 26 articles. There was a total of 8,345 patients who received notifications and 7,731 patients that received no notification. Studies show this yields a 23% higher likelihood that patients will keep their appointments. For those who received multiple notifications, there was an even higher attendance adherence. Studies also show that voice notification appears to be more effective compared to text notifications.

### **Project method**

Once the clinical problem had been identified, factors that influenced the problem were investigated. The WeCare Clinic had a database that monitors this data. The most common reasons patients' no-show to their appointments at the WeCare Clinic were forgetting the appointment time, lack of transportation or transportation arrangements failing, and not completing appropriate lab work prior to the scheduled appointment time. The WeCare Clinic had previously tried to address the issue of forgetting appointments with reminder calls,

however, they were inconsistent and did not yield good results. In June 2019, staff was educated on new interventions to address these issues with a specific focus on the staff that manage scheduling. New changes were implemented in July 2019. When patients called to make their appointments, the secretary explained to them they will receive a reminder call/text/letter/email based on the patient's personal preference. The reminder notification was sent one week prior to the scheduled appointment date. Additionally, a new cancellation and no-show policy were implemented. The new cancellation policy requested all patients cancel their appointments no less than 24 hours prior to their appointment. Patients who no-show their scheduled appointment more than three times were dropped from the practice. This new policy was given to all patients at their next appointment, and they will be asked to sign it. Transportation assistance was provided and consistent front desk staff were established.

Once the new policy was implemented and transportation assistance had been provided, the no-show rate at the WeCare Clinic was re-evaluated. Evaluation occurred at one month, three months, and six months after these interventions were implemented by monitoring the percentage of patients who no-showed their appointments and the number of those who did present to their scheduled appointment. Adjustments to interventions were made as they became necessary. As previously stated, the initial no-show rate at the WeCare Clinic was well above 50%. The goal was to decrease the no-show rate to less than the national average of 23%. Stakeholders in this project include the WeCare Clinic, the providers, the patients, and health insurance companies insuring these patients.

### **IRB Significance/Sustainability**

Currently, there is no policy in place for appointment reminders or patients who no-show frequently. Previously, there was an inconsistent attempt to remind patients of their appointments

via phone call, which did not produce positive outcomes in appointment adherence. WeCare clinic has a 30-40% higher no-show rate compared to the national average, which revealed a need for change to improve appointment adherence. The plan should be catered to the specific population. There has been significant research done that has shown lower no-show rates with frequently phone/text reminders for patients at high risk, which is why we implemented this approach.

## **Evaluation**

In the first quarter, (January 2019-March 2019), no-show rates averaged 31.5%, with the highest rate of no-shows being 38.9% in January. Cancellation rates averaged 13.5%. At this point, there was not a reliable reminder system in place. Staff stated reminder calls were placed sometimes, but efforts were inconsistent. Transportation resources were available to patients. Front desk staff was inconsistent and included Nurse Practitioners, Registered Nurses, and other staff. A no-show policy existed but was not implemented or even provided to most patients.

In the second quarter, (April 2019-June 2019), no-show rates averaged 27.4%. Cancellation rates averaged 7.5%. During this time a reliable reminder system was implemented. This system sends out emails and texts one week prior to the appointment and two days prior to the appointment with the option to cancel if necessary. The implementation of a reliable reminder system resulted in a 4.1% decrease in no-show rates from the first quarter.

In the third quarter, (July 2019-September 2019), no-show rates averaged 23.4%. During this time, a no-show policy was consistently implemented and presented to all patients. This no-show policy stated that greater than three no-shows in a twelve-month period would result in the inability to schedule an appointment. At this point, patients can still come to the clinic, but they

can only present as a walk-in. This resulted in a 4% decrease in no-show rates from the second quarter and an 8.1% decrease in no-show rates from the first quarter.

In the fourth quarter, (October 2019-December 2019), no-show rates averaged 22.5%. The reminder system, consistent front desk staff, and transportation resources were all continued. This is a 0.9% decrease from the previous quarter. Additionally, this is below the national average of 23%.

### **Impact on Practice**

This quality improvement project impacted no-show rates at the WeCare clinic in several ways. Staff at WeCare clinic displayed satisfaction with the decreased in number of no-shows. In addition, the project provided a foundation for future policies to be created, regarding appointment adherence. This project can be further expanded by adding benefits and penalties to the no-show policy. Moving forward the use of text/call notification should be used for all patients consistently, as well as consistent front desk staff. After implementing this project, the number of no-shows decreased to an acceptable level. WeCare clinic plans to continue using the tools identified in this project in hopes to yield continuing positive results. These interventions resulted in financial benefit for WeCare, improved patient care, and improved patient outcomes.

Sample bias limits the application of the study results. This study was primarily focused on a low-income patient population with limited resources. Common issues included transportation to appointments, communication methods, and financial resources. The findings of this study likely cannot be applied to higher income areas with increased no-show rates.

### **Conclusion**

After initiating the reminder systems, new no-show policy, and hiring a consistent front desk personal there was in tremendous decrease in the number of no shows. No-show went from

38.9% in January 2019 to an average of 22.5% in the fourth quarter of 2019. With the national average of 23% it was critical to implement a system that will be effective in reducing the no-show rates. No-shows can be detrimental to any health care clinic because it can have a significant impact on patient health outcomes and negative financial outcomes for the practice and the patient. In conclusion, with the new system that is both sustainable and effective in place, no-show rates have reached an acceptable percentage.

### **Author Contact Information**

*Mai Nguyen RN BSN, FNP-DNP Student: Mailing@siue.edu*

*Sarah Kuzara RN BSN, FNP-DNP Student: Skuzara@siue.edu*