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Implementation of a Patient Satisfaction Survey at a Free Community Clinic: A Quality Improvement Project

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A DNP project submitted in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice

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Approvals

This is to certify that the DNP Project Final Report by

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Table of Contents

Abstract

Background

The uninsured, underinsured, and underserved populations in the US are impacted by health disparities and have unique experiences with healthcare. Yet, settings which serve these populations – the “safety net”- are not adequately supported to gather patient experience data. In Connecticut, Fairfield County has a higher percentage of uninsured people than the overall state. Additionally, this population has demonstrated higher frequency of emergency department utilization than the overall population. Therefore, processes to measure the barriers to accessing quality care and patient experience and satisfaction with care are needed in safety net clinics to promote elimination of health disparities and to promote health equity.

Objective

The aim of this project was to implement a tool and process for measuring patient satisfaction and self-reported emergency utilization at a free community based clinic in Bridgeport CT.

Intervention/Methods

The Model for Improvement framework was used to guide implementation of a process and tool to measure patient satisfaction. The satisfaction tool was developed and approved for use by the internal quality improvement committee at the clinic and staff /volunteers were trained to use the tool. Surveys were administered and collected from patients attending the clinic over a 16 week period.

Results

The staff demonstrated compliance with the process for administering and collecting patient satisfaction surveys. Patients were satisfied with the care received at the community-based clinic. Waiting times to get appointments and the waiting times between appointment time and being seen by the provider were areas in which patients were less satisfied. Additionally, the population seen at the clinic had an overall lower rating of understanding their medication regimens. There was an overall decrease in percentage of patients who reported utilization of the emergency room over the project period.

Conclusions

Implementation of the process and tool to measure patient satisfaction was successful. Feedback from the survey identified areas that the clinic can improve to provide more patient centered care. Additionally, the survey provided insight to the reasoning behind frequent emergency use in the population served which will help the clinic decrease barriers to accessing care and improve patient retention.

Keywords/Key Phrases

Patient satisfaction, patient survey, uninsured, community based clinic, emergency room utilization, patient centered care, patient retention, quality improvement, the Model for Improvement.

Problem Identification

Background and Significance of Problem

In 2001, the Institute of Medicine (IOM) and Committee on Quality of Health Care in America (CQHCA) published *Crossing the Quality Chasm* which called for fundamental changes in healthcare to prioritize quality (IOM and CQHCA, 2001). In this report, the IOM identified the six domains for improving the quality of healthcare, one of which is through providing patient-centered care (IOM and CQHCA, 2001). Patients' experiences and evaluation of the care they receive became an important indicator and measurement used to determine quality in healthcare. In 2002, the Centers for Medicare & Medicaid Services (CMS) and Agency for Healthcare Research and Quality (AHRQ) partnered to create a standardized measurement tool to evaluate the healthcare experiences of patients called the Hospital Consumer Assessment of Healthcare Providers and Systems Survey (HCAHPS) (CMS, 2021). With a standardized way to benchmark patient experiences and satisfaction with care, it is now used to compare the quality of organizations influencing competition within healthcare markets and dictating reimbursement and financial incentives rewarded by CMS (Ctalyst, 2018). This drive to use patient perceptions of care to measure healthcare quality has been supported by CMS, health plans, and private insurers (Zuckerman et al., 2012). Therefore, the populations' perspectives examined have historically been patients with insurance.

Over 44 million Americans use the "safety net" which provides healthcare services to the uninsured, underinsured, and vulnerable populations (IOM, n.d.). Populations served by the safety net are disproportionally affected by health disparities and have unique experiences with healthcare (Kamimura et al., 2019). Therefore, to understand and promote patient-centered care in this population we must first understand their perceptions of the care they receive (Kamimura et al., 2019). Yet, little is known about the perceptions of this population (Kamimura et al., 2019). Furthermore, organizations within the safety net have limited funding and support to collect information on patient perspectives (Zuckerman et al., 2012). Measuring patient perceptions of care is now a standard of care in other populations, and organizations within the safety net need to support meeting this standard to minimize disparities in the uninsured, underinsured, and vulnerable populations.

Description of Local Problem

The percentage of uninsured adults in Fairfield County (FC) is six percent just above Connecticut's (CT) state average of five percent (Abraham et al. 2019). Although seemingly average, disparities exist in certain populations with 13% of African Americans, 14% of Latinos, and 15% of lower-income individuals lacking insurance coverage (Abraham et al. 2019). Bridgeport, CT has the highest Latino, African American, and lower-income populations in all of CT, making lack of insurance a major barrier to accessing healthcare services within this community (Abraham et al. 2019). Within FC, those with no health insurance, limited access to healthcare, or who lacked basic needs such as food, housing, and transportation had a higher relative risk of having frequent emergency room (ER) visits (Abraham et al. 2019). Additionally, nine percent of adults in FC reported discrimination when accessing healthcare services; one of the major perceived causes of discrimination was insurance status (Abraham et al. 2019). There is a need to identify barriers to accessing culturally and patient-centered care, especially for those with health-related social needs, lower socioeconomic standing, and who lack health insurance in Bridgeport, CT.

The newly-established free community clinic where this project was implemented provides medical and mental healthcare services to the uninsured and homeless population of

Bridgeport, CT. Being newly established, this clinic has no current method or process to identify barriers to providing patient-centered care.

Organizational Priority

The Quality Improvement/Quality Assurance/Risk Management (QI/QA/RM) committee and founder of the clinic have identified measuring patient experience and satisfaction as an organizational priority to drive quality improvement efforts to improve culturally competent and patient-centered care. Focusing on patient satisfaction and experience is relevant to patient preference and quality of life, provides opportunities to drive innovative improvements in practice, and decreases the economic burden of care making it a priority topic of focus.

Development of A Clinical Question

To ensure implementing patient satisfaction and experience measurement is the best practice, a literature search was conducted to answer the following practice questions; In patients accessing outpatient clinics (P) does patient satisfaction (I) compared to patient dissatisfaction (C) influence utilization of emergency department services and the likelihood to return for care (O)? Additionally, at a community-based clinic (P) does measuring patient satisfaction (I) compared to no measurement (C) influence organizational quality improvement?

Evidence Review

Systematic Search for Evidence: Process

A search was conducted in CHINAL and Medline with full text. Keywords and phrases included patient satisfaction, patient experience, quality improvement, free clinic, community clinic, ambulatory care, student-run clinic, medically uninsured, emergency department utilization, emergency service use, patient loyalty, and patient retention. Searches were limited to articles in English published in peer-reviewed journals between 2012 and 2022. Searches with high yields were narrowed by limiting publication type to systemic review and by using search field descriptors for keyword inclusion in the title or abstract. Articles were selected based on relevance to implementing or measuring patient satisfaction as an intervention and identifying outcomes of improved patient satisfaction. Articles describing validation of a patient satisfaction tool, using patient satisfaction measurements as an outcome measure, or opinion/review articles were excluded. Tables one and two in Appendix A represent the search strategy and results. A total of 22 articles were identified for appraisal.

Systematic Search for Evidence: Results

Selected articles were read in full and critically appraised using the Melnyk tools for rapid critical appraisal. Articles that had little relevance, had poor study methods, or inadequate reporting of study results were further excluded from the evidence. Key information, appraisal comments, and level of evidence for each appraised article are condensed into the evidence summary table in Appendix B. The highest level of evidence (LOE) articles found were LOE IV cohort studies, this is likely due to the subjectiveness of patient experience and the ethics surrounding altering the experience as an intervention. Fenton et al. (2021) and Haichang Xin (2019) conducted cohort studies demonstrating improved patient satisfaction with healthcare lowering the odds of ER utilization. Navarro et al. (2021) an LOE V, and Wong et al. (2018) an LOE VI also conclude that patient satisfaction with providers reduces ER utilization. Anhang et al. (2014) conducted an LOE V systematic review of descriptive studies showing a positive association between poor patient satisfaction and unnecessary healthcare utilization, of which ER utilization was a considered factor. Quigley et al. (2021) conducted a rigorous systematic review of descriptive studies -LOE V- which showed evidence that improved patient satisfaction is positively associated with willingness to recommend, patient retention, and intent to return for care. Finally, Reed et al. (2019) conducted a single cross-sectional study -LOE VI- which showed that positive patient perceptions of care increased the odds of patient retention. This study is especially important, as it explores patient satisfaction and retention in the population accessing alternative care such as community, mobile, and school-based clinics.

Another aspect of interest was the impact of measuring patient satisfaction on organizational quality improvement. Anhang et al. (2014) and Navarro et al. (2021) concluded that positive patient experiences were positively associated with organizational factors including the use of evidence-based practices, a culture of patient safety, and adherence to clinical guidelines. Asanad et al. (2018) and Schroeder et al. (2020) are cross-sectional studies -LOE VI- that implemented patient satisfaction questionaries at a mobile health clinic and a student-run free clinic respectively. Although quality improvement was not a measured outcome in these studies, the authors discussed how the results of questionaries indicated the need for quality improvements and thus led to quality improvement initiatives at their respective sites. Zuckerman et al. (2012) used qualitative methods -LOE VI- to explore the collection and use of patient experience data within the safety-net population. The main theme found was that organizational leadership used patient experience questionaries as a tool to drive quality improvement efforts and measure the outcomes of quality improvement initiatives within their organizations.

Critical Appraisal of Evidence

Overall, there is strong evidence that associates improved patient satisfaction with decreased ER utilization, decreased unnecessary healthcare utilization, improved patient retention, willingness to recommend, and patient intent to return (Fenton et al., 2012; Haichang Xin, 2019; Anhang et al., 2018; Reed et al., 2019; Quigley et al., 2021). Evidence also suggests that there is an association between positive patient experiences and the use of evidence-based practices, clinical guidelines, and improved patient safety culture (Anhang et al., 2014; Navarro et al., 2021). Although limited research has been done in the safety-net or alternative care population, there is promising evidence that supports measuring patient satisfaction as a significant quality improvement tool and healthcare performance measure (Asanad et al.,2018; Schroeder et al., 2020; Zuckerman et al., 2012).

According to the literature, patient experiences and satisfaction with care have a significant impact on how patients utilize care services. With the global aim of reducing unnecessary emergency department utilization and improving retention in patients who attend a community care clinic, it is prudent to consider patient satisfaction as an important factor. The literature also shows that patient satisfaction and experiences are associated with organizational practices. Lower-level evidence supports that organizations that are considered alternative forms of care for disadvantaged populations can use patient satisfaction surveys (PSS) as a tool to capture the experiences of their unique populations and tailor quality improvements based on the results. To understand the best approach to improving the patient experience, organizations need to use valid and reliable tools to measure the patient experience. Further integrating the monitoring of trends in patient satisfaction to direct quality improvement initiatives should be woven into organizational management.

Project Plan

Project Goals

This project's global aim is to implement a process for measuring patient satisfaction and experience at a free community clinic. The expectation is by implementing a patient satisfaction tool, improvement in patient-centered care, reduction of unnecessary emergency department utilization, improvement in patient retention, and positive quality improvement efforts at the clinic will occur. During the 12-week pilot phase, the project aims to collect at least 30 PSS on patients attending the clinic for medical services. Additionally, during the 12-week pilot phase, the project aims to have 80% staff compliance with administering and collecting PSS on patients attending the clinic for medical services. It is important to implement this project as patient satisfaction with care dictates the utilization of healthcare services and is critical in identifying improvements needed within organizations. The following are the goals of the project:

- To implement a valid tool for measuring patient satisfaction with medical services.
- To initiate a process of measuring patient satisfaction. This will include the involvement of the quality assurance/quality improvement and risk management (QA/QI/RM) committee in tracking and responding to trends in patient satisfaction.
- To educate staff on how to collect measurements of patient satisfaction, and how the information will be used within the organization.
- To track trends in patient experience and satisfaction to identify target areas where improvements are needed.
- To assess patient engagement with satisfaction/experience survey.
- To assess staff adherence to process for measuring patient satisfaction/experience.
- To improve overall patient satisfaction scores.

EBP/QI Model/Implementation Model

The Model for Improvement is a four step framework that is used in healthcare organizations to accelerate quality improvements (Institute for Healthcare Improvement [IHI], 2023). The first three steps of this framework are used to identify what the organization wants to accomplish, how it will be identified that a change is an improvement, and what improvements can be made to accomplish the change (IHI, 2023). Finally, the Plan-Do-Study-Act (PDSA) cycle is used to test the change in actual practice settings (IHI, 2023).

The Plan-Do-Study-Act (PDSA) cycle is a systematic process utilizing a team with expertise and influence on a problem to develop a specific, measurable, attainable, relevant, and timely goal, to identify key quality measures to determine if the goal has been met and to collaborate on ideas for change that will meet this goal (Chen et al., 2021). These improvement ideas are tested on a small scale, and quality measures are compared before and after the change to determine effectiveness (Chen et al., 2021). The QI team reflects on the evidence and chooses to modify and retest interventions, disseminate change on a larger scale or try a new intervention altogether (Chen et al., 2021). Regardless of the result at the end of this process, a new PDSA cycle is started. This framework can help develop interventions that will be sustained to solve a practice problem (Burke & Marang-van de Mheen, 2021). When done effectively and early on in the quality improvement process PDSA cycles measure the effectiveness and sustainability of different interventions and implementation strategies over time (Burke & Marang-van de Mheen, 2021). This continuous quality improvement framework will ensure patient satisfaction and experience data is responded to in a timely manner and systematic improvements are monitored over time (Song et al. 2020). The Model for Improvement will be utilized as the framework to guide this quality improvement (QI) project.

Context/Organizational Assessment

Description of the Setting and Population

The newly established free community clinic where this project was implemented provides medical and mental healthcare services to the community members of Bridgeport, CT. It is is open from nine in the morning to five in the evening on weekdays. The clinic is partnered with a non-profit community resource that provides emergency housing, food and clothing distribution, and addiction recovery assistance free of cost to community members in need. The clinic's role is to provide medical and mental healthcare services to patrons accessing the non-profit community resource as well as the general community. Being newly established the clinic primarily attracts patrons of the non-profit community resource who lack basic needs such as food, clothing, or shelter, who are uninsured, or who have limited access to healthcare services. The clinic is also open to the general public. Participants in this QI project will include the clinic's staff/volunteers as well as the adult patients accessing the clinic.

Key Stakeholders

Key stakeholders will include the founder and chair of the clinic and the clinic's QI/QA/RM committee members. Other stakeholders include volunteers at the clinic -doctors, nurse practitioners, nurses, students, and other staff- and adult patients. A face-to-face meeting with the founder and chair was conducted to outline the benefits, goals, and plan for this QI project to obtain buy-in. As a leader within the clinic and within the project team their involvement will support collaboration from other stakeholders, appropriate data collection, support, and necessary resources to initiate and sustain project goals (Dawson, 2019). A letter of support from the clinic and a practice mentor agreement completed by Dr. Bihl attached in Appendix D demonstrates Dr. Bihl's and the clinic's commitment to supporting this QI project.

Practice Change/ Intervention

The measurement of patient satisfaction will be incorporated into the patient visit at the clinic. The practice change will occur at the end of the patient visit before they leave the waiting room. When the patient is done seeing the provider, the provider or staff member will ask if they will complete an anonymous patient satisfaction survey. Volunteer staff will offer the survey in

English or Spanish and offer the patient assistance with reading or writing to complete the form. After completion of the online survey, the staff will document within the electronic medical record (EMR) that the patient satisfaction survey was completed. If the patient chooses not to complete the survey the staff will document this within the EMR. A process map was used to illustrate the incorporation of this practice change into the current process at the clinic, it can be found in Appendix E.

The survey will incorporate three components. The first will be ten survey questions adopted from valid and reliable PSS including Consumer Assessment of Healthcare Providers and Systems Survey (CHAPS), Press Ganey, and The Patient Satisfaction Questionnaire Short Form. The second will be a self-reported measurement of emergency department utilization. Lastly, an open ended question eliciting patient perspectives on how the clinic can improve care will conclude the survey. The proposed survey can be found in Appendix F.

Evaluation

During the pilot evaluation of the survey implementation process measures, outcome measures, and balancing measures will be collected by the project team to determine the success in meeting project goals. Process measures will include compliance with the collection of the patient satisfaction tool over time. Outcome measures will include mean patient satisfaction scores, self-reported emergency department utilization, and areas identified for quality improvements. Mean patient satisfaction scores will be calculated for each item on the satisfaction survey. Emergency department utilization will be measured by self-report on the patient survey. Finally, the number of areas identified for quality improvement will be measured by survey items whose mean satisfaction ratings are less than three. Measurement of outcomes will be done weekly and analyzed using a run chart. Additionally, a staff survey of the process of collecting patient satisfaction measurements will be collected at the conclusion of the pilot period and act as a balancing measure.

Barriers and Facilitators to Implementation

Patient surveys are a common method for assessing the patient experience of care (Song et al., 2020). To effectively use patient surveys to improve healthcare is important to identify barriers to implementation and plan strategies to overcome them. Organizational barriers to implementation of a patient survey include lack of resources, information technology infrastructure, or staff to oversee the process (Song et al., 2020). Furthermore, the organizational culture of quality improvement, the fit of practice change into the current workflow can impact the implementation of patient surveys (Song et al., 2020).

To enhance ownership, accountability, and sustainability the QI/QA/RM committee at the clinic will oversee the process of collecting and interpreting patient experience and satisfaction data. To ensure the survey carries significance to stakeholders and fits well into the workflow, stakeholders will be given input throughout the design of the survey and throughout the implementation process. This input will be incorporated into the PDSA cycle through the process and balancing measures discussed. To enhance staff engagement in practice change in-service educational sessions will be held. During these educational sessions the impact of surveys on care, the practice change, associated documentation and roles, and methods for evaluation will be discussed. Support from organizational leadership will assist in collaboration from other stakeholders and obtaining the resources needed for the project (Powell et al., 2015).

Zuckerman et al. 2012 conducted a qualitative study identifying the barriers to collecting patient experience with care data in the safety-net population accessing free clinics. The authors concluded that language barriers, literacy, and computer literacy are all barriers to patient engagement with surveys. In the pilot phase, to overcome these barriers patients will be asked if they need assistance completing the survey and the survey will be offered in English and Spanish.

Sustainment

Performance boards are visual aids that help communicate to staff within an organization the outcomes of quality improvement initiatives (Silver et al., 2016). Displayed in a prominent area accessible to all staff, the board will include the goal or aim of quality improvement initiatives, the results of outcome measures, and strategies to improve outcomes (Silver et al., 2016). This strategy demonstrates organizational devotion to quality improvement and provides transparency with staff on how quality improvement projects are going (Silver et al., 2016).

At the free community clinic where this project will be implemented, a patient satisfaction performance board will be prominently displayed in the resource center, accessible to all staff and patients. The long term aims of the project will be displayed; to have 100% compliance with collecting patient satisfaction after delivery of care, to have a 30% improvement in mean patient satisfaction scores, and to reduce the number of patient’s visits to the ER by 25% over 12 months. Outcomes to be displayed are compliance with collecting patient satisfaction scores, mean patient satisfaction scores, and the number of ER visits by the clinic’s patients documented on run charts. Strategies for improvement will be synthesized by the QI/QA/RM committee including input from stakeholder interviews and surveys collected as process and balancing measures.

In addition to a visual performance board email blasts to employees during the pilot period will update staff with the changes to practice and their role in the process. Visual aids will be posted in exam rooms and at the front desk within the resource center to encourage patient and staff engagement.

Project Timeline

- **May 16th, 2022:** Meet with founder and chair of the clinic to obtain organizational leadership and support for project. Agree upon PICO question and goals of the project.
- **June 26th, 2022:** Complete literature review and recommendations for practice and submit for approval from faculty advisor.
- **July 10th, 2022:** Complete plans for project evaluation and submit to practice mentor and faculty advisor for approval. This includes proposed patient satisfaction survey for final approval.
- **July 19th, 2022:** Complete research, ethics, and safety training. Submit Collaborative Institutional Training Initiative (CITI Program) certifications to faculty advisor.
- **July, 24th, 2022:** Final proposal to practice mentor and faculty advisor. Apply for exempt status to institutional review board (IRB) at Sacred Heart University (SHU).
- **August, 2022:** Project proposal oral presentation.
- **August 23, 2022:** Meet with the QI/QA/RM committee for final approval of patient satisfaction and experience measurement process and tool.
- **September, 2022:** Work with IT to implement necessary EMR documentation. Establish a designated area for survey completion. Establish survey materials (online vs. written). Pre-implementation data gathering.
- **September 15 and 29, 2022:** Inservice education sessions.
- **October 3, 2022:** Implementation of patient satisfaction and experience survey.
- **October-December, 2022:** Collection of process, outcome, and balancing measures. Deployment of sustainment strategies.

- **December, 2022:** Completion of pilot phase. Celebrate success with stakeholders! Meet with QI/QA/RM committee to review evaluation of project goals, and decide on initiation of new PDSA cycle.
- **February- May, 2023:** Dissemination of project.

Resources/Budget

Anticipating this project's resource needs and budget will ensure the financial feasibility and sustainability of the project. Staff, volunteers, and students at the clinic will be asked to contribute their time in collecting patient surveys. Additionally, the project team will dedicate time implementing the project, collecting and analyzing data, and evaluating the outcomes of the project. As many of the staff at the clinic are volunteers and students there will be no additional salary expenses for project activities or time spent collecting data. The two current options for mode of administering the survey are through an online platform or through paper surveys. This depends on the availability of a computer or tablet at the clinic to conduct online surveys.

Pricing for an online platform to collect survey data will cost the clinic 25 dollars monthly whereas paper surveys will use paper products, ink, and pens all currently in use at the clinic. Another cost is the IT support needed to incorporate suggested documentation into the EMR and create a secure document to trend patient grievances to keep health information protected. Additionally, coffee and breakfast will be provided at in-service educational sessions planned to get stakeholder buy-in and aid in implementation and sustainment of the project. Table 4 located in Appendix G outlines the start-up and monthly ongoing budget for both survey methods.

Initially, the online survey method will be more expensive to initiate, but after month one ongoing costs will be the same as a written survey and offer superior ease in data analysis.

Estimated costs of materials were conservative as to not underestimate the cost of project resources. Additionally, these projections are made under the assumption that a computer or tablet will be available for use. The financial budget for this project will be 100 dollars in month one, and 50 dollars for each additional month.

Ethical Review

This project aims to apply a standard of care – measuring patient experience and satisfaction- to actual practice at a free community clinic. The PDSA cycle will be used to create immediate improvements in care sustained over time. Additionally, all willing patients will be able to participate, and the improvements in practice created by this project will be specific to the clinic and its patients. This project will not withhold usual care, nor collect any patient identifiers. Because this project is implementing a standard of care that will immediately and long-term benefit the patients who access the clinic, it is considered QI rather than research (Carter et al., 2021). Table 5 in Appendix H contains the Differentiating Quality Improvement and Research Activities Tool completed for this project. As a QI project this project does not require Institutional Review Board (IRB) approval, the project team applied for exempt status.

Implementation

The Model for Improvement framework was used to guide the implementation of this quality improvement project. Over the implementation period from September 6, 2022 to January 31, 2023, three PDSA cycles were conducted.

PDSA Cycle One

Plan Phase

On July 26, 2022 the project proposal was presented to the QI/QA/RM committee at the clinic. The attending committee members unanimously approved the proposed patient satisfaction survey tool and process change. One committee member was unable to attend but received minutes to the meeting. On August 10, 2022, the IRB at SHU granted exempt status to the project. To prepare for this project's implementation, an in-service educational session was held on September 15, for all staff/volunteers involved in administering and collecting PSS. At this session, the staff were introduced to the patient satisfaction survey tool and shown where it will be physically available. Additionally, the purpose of the project, intended outcomes, and roles and responsibilities of each staff/volunteer involved in the process of administering and collecting surveys was clearly outlined. An email with the same information was sent to all staff/volunteers involved in the process to re-iterate education, and educate staff/volunteers unable to attend the educational in-service. The contact information for the DNP project leader was included in this email and open communication about the project and barriers to success were encouraged.

The DNP project leader met with the founder and chair of the clinic, to discuss the method of survey administration. Due to the availability and low cost of materials needed for paper surveys they selected to use paper over electronic methods for survey administration and collection. The survey was translated into Spanish using google translate by the DNP project leader. The Spanish version was read for clarity and correctness by one of the project team members who is bilingual in English and Spanish and is a native Spanish speaker. Materials needed for the project were collected; paper, pens, clipboards, and locked metal survey collection box labeled PSS with the clinic’s logo. 20 copies of the English survey and 20 copies of the Spanish Survey were placed in a folder at the front desk in the resource center at the clinic. One copy of each was placed on its own clipboard with a pen and placed on the outer counter of the front desk which is accessible to patients. The lockbox for collecting completed surveys was also placed on this counter so that it would be accessible to patients; one key to this lockbox was kept in a locked drawer at the front desk in the resource center, the other was kept by the DNP project leader.

With the assistance of Dr. Penque, DNP project advisor, an excel spreadsheet was created with each survey item to document track the results of the survey throughout the implementation phase.

Do Phase

On October 3, 2022, the clinic began to administer and collect PSS on patients who were visiting the clinic to see a medical provider. At the end of the patient visit with the medical provider, the front desk staff asked patients if they would be willing to fill out a survey. If the patient completed the survey they would place it themselves in the collection box. If they chose not to fill out the survey, a blank survey would be placed either by the patient or staff into the collection box. This process deviated from the initial project plan and will be discussed later in this section. A process map depicting the process of administering and collecting PSS throughout the first PDSA cycle can be found in Appendix I.

Study Phase

During this phase, the DNP project leader collected PSS to determine patient engagement with the survey and staff/volunteer compliance with administration and collection. Surveys were collected and analyzed on October 13, 2022 and October 25, 2022. During this PDSA cycle 22 patients were seen in the clinic for medical visits, and 13 surveys were collected. Of the surveys collected zero of them were submitted blank. This suggests that of the patients seen, nine of them did not receive a survey or did not submit a blank survey to the collection box.

Act Phase

Staff compliance with administering and collecting PSS was 59%. The project goal was to achieve 80% compliance with staff adherence to administering and collecting PSS which was not met in this PDSA cycle. Additionally, the goal of collecting 30 PSS was not met. This highlighted the need to examine the process of administering and collecting patient surveys and implement improvements. The project goals to implement a tool for measuring patient satisfaction with medical services at the clinic, educate staff on how to collect measurements of patient satisfaction, and how the information will be used within the organization, and assessing staff adherence to process for administering and collecting PSS were successfully achieved in this PDSA cycle.

PDSA Cycle Two

Plan Phase

The DNP project leader met with Dr. Bihl and discussed the results of PDSA cycle one. Dr. Bihl encouraged the project leader to discuss barriers to project implementation with the front desk staff as they were primarily in charge of administering and collecting surveys from patients. The DNP project leader conducted an informal interview with the staff member who works at front desk in the resource center Monday through Friday during business hours.

During this discussion a few barriers to administering and collecting surveys were identified. The first barrier was that patients coming to the clinic are often also residents living at the community resource center, and when they leave the clinic, they do not pass by the front desk and therefore never receive a survey. The second barrier identified was that due to only having one person working the front desk their multiple responsibilities often take them away from the desk allowing patients to leave before receiving a survey. It was identified that all patients check into the clinic at the front desk so they can initiate their visit and this may be an optimal time to administer the survey rather than at the end of the visit. This change to the process was seconded by the founder and chair of the clinic.

Do Phase

To communicate the practice change an email was sent to all staff/volunteers participating in the project twice during this PDSA cycle. Emails included a bar graph and run chart depicting staff compliance with administering and collecting surveys which can be found in Appendix J, a paragraph re-iterating our project purpose and goals, and a detailed summary of the new process changes which are depicted in in a process map found in Appendix I were also included. Additionally, signs informing patients to fill out their surveys stating “Your voice matters! Please fill out your patient survey and return to the front desk” were posted in each medical exam room. The project team was encouraged to reach out to the project leader with questions, concerns, or suggested improvements.

Study Phase

During this phase the DNP project leader collected surveys to examine the effect of process changes on staff compliance with administering and collecting PSS. Surveys from October 25, 2022 to December 22, 2022 were collected on November 29, 2022 and December 22, 2022 by the DNP project leader and results were recorded into the project excel sheet. Over this period 33 patients were seen for medical visits at the clinic. 21 surveys were collected. Zero blank surveys were collected suggesting that all patients who received a survey filled it out. Staff compliance with administering and collecting surveys for this PDSA cycle was 63%.

Act Phase

The project goal of collecting 30 surveys throughout the project period was achieved in this PDSA cycle. Although there was a modest improvement in compliance with administering and collecting surveys during this period the project goal of 80% compliance was not met. This indicated to the project team that further improvements in this process were needed.

PDSA Cycle Three

Plan

The DNP project leader again met and held an informal interview with the staff member who works at the front desk of the clinic. During this meeting further barriers to administering and collecting PSS were discussed. They observed that although patients are receiving surveys at the start of their visit, they leave them in the exam room not filled out. It was also identified that due to other responsibilities of their role, some surveys were not administered at the beginning of the patient visit. The DNP leader attended the clinic's quarterly QI/QA/RM committee and presented the project progress. The committee discussed possible solutions to overcome these barriers, including sharing the responsibility of administering surveys by having the medical providers administer surveys missed by the front desk. An additional brainstormed solution was to have providers remind patient's to fill out the survey and check out at the front desk at the end of their visit.

Do Phase

To communicate this practice change an email communication was sent to all staff/volunteers which included the new roles and responsibilities and changes to process of administering and collecting PSS. A process map depicting changes to the process for PDSA cycle three can be found in Appendix I. 10 additional copies of English and Spanish versions were made available for providers to administer in each of the exam rooms. The survey clipboards were updated to include a patient reminder to return to the front desk after visit. Surveys were collected at the clinic from December 22, 2022 to January 31, 2023 using this updated process. As this was the last PDSA cycle in the project pilot an voluntary online survey was administered to staff and volunteers involved in this project. Survey questions and analysis can be found in table 6 of Appendix K. A group email asking staff/volunteers to complete the survey was sent, and additional personal emails from the DNP project leader to each participating staff member/volunteer asking to fill out the survey were sent a week later.

Study Phase

Surveys from January 2, 2023 to January 31, 2023 were collected and analyzed by the project leader. A total of 48 patients were seen at the clinic for appointments, and 38 surveys were administered and collected by the clinic staff/volunteers. Staff compliance with administering and collecting surveys was calculated at 79%.

Act Phase

The project goal of implementing a process for administering and collecting PSS at the clinic was deemed a success. Therefore, this PDSA cycle was the final phase of implementation of the patient satisfaction survey tool at the clinic. Results of the survey will be discussed in the evaluation and results section of this paper. The patient satisfaction survey tool continues to be administered and collected from patients attending the clinic.

Deviations from Project Plan

PSS were conducted on paper rather than on an electronic platform. This was due to the resources available at the clinic and the preference of the clinic’s founder/chair. This impacted the feasibility of analyzing survey results in real-time but cut down on project costs.

Two educational in-services were planned to successfully begin the implementation of this project. These were planned as drop-in educational sessions to promote the feasibility of attending for staff and volunteers. It was not taken into consideration that some staff/volunteers only are at the clinic once a week. Additionally, at this time there were absences of staff that are at the clinic full time. Due to limited attendance on the first in-service day, it was decided that an email correspondence would be sent out to participating stakeholders to notify them of the project's start date, the purpose of the project, roles and responsibilities, and project goals in leu of conducting a second in-service day.

When preparing the project for ethical review, patient confidentiality was discussed by the project team. Patient engagement with the survey was initially going to be measured by documenting in the patient EMR the completion or non-completion of a survey. It was highlighted in this discussion that patient anonymity would not be kept with these methods. It was decided that patient compliance would be measured by having patients who did not wish to complete a survey submit a blank survey into the lockbox to keep patient information anonymous as originally intended. The need for an IT expert to integrate EMR documentation was eliminated.

During the third PDSA cycle, the founder of the clinic expanded the project to include collecting survey feedback from patients attending behavioral health visits as well as medical visits at the clinic. This increased the return of surveys in the clinic dramatically during this cycle. The data was adjusted to reflect accurate compliance with consideration of additional patients seen.

The project pilot period was originally intended to last 12 weeks. As one of the project goals was to examine ER utilization over time the project team decided to extend the project pilot period for an additional 4 weeks. The project period extended from October 3, 2022 to January 31, 2023. The clinic was closed from December 23, 2022 to January 2, 2023.

Evaluation

Process Measures

A total of 72 patients visiting the clinic for care completed a patient satisfaction survey. Compliance with administration and collection of the survey by clinic staff and volunteers was analyzed by calculating the percentage of patients seen in the clinic who returned surveys. This analysis is depicted in a combined run and bar chart that can be found in Appendix J.

Outcome Measures

Results of the surveys were recorded in excel by the DNP project leader. Each survey was given a reference number from one to 72 for reference while preserving patient anonymity. Each patient experience survey question was recorded using a scaled rating from one to five which directly reflects the survey tool. Overall patient satisfaction was recorded based on patient response from zero to ten. Mean and standard deviation was calculated for each survey question not including open ended questions or questions regarding ER utilization. Table 7 illustrates this analysis and can be found in Appendix L.

Survey respondents self-reported utilization of the ER in the last 3 months was analyzed by frequency and percentage. Of the respondents who reported ER visits in the last 3 months, reason for ER visit was also analyzed using frequency and percentage. The results of these analyses are depicted in pie charts which can be found in Appendix M. The data allowed for an additional analysis of reported ER visits per month of project period. These results are reported in frequency and percentage, and are depicted in the form run chart that can be found in Appendix M.

Many patients who completed the survey did not respond to the open-ended question at the end of the survey. Additionally, many of the respondents who did it was to state their satisfaction with care or leave well wishes for the staff who cared for them. As this item on the patient satisfaction survey did not result in its intended purpose the project team decided to exclude it from the analysis.

Balancing Measures

Faculty and volunteers were invited to give their feedback on the project planning and implementation in an online survey. Feedback on this survey was analyzed using constant comparative method. This analysis revealed 13 meaning units categorized into 10 distinct categories that represent positive and negative experiences throughout the project period. Final analysis revealed 6 major themes that help to explain staff experiences throughout the project period. Table 6 in Appendix K outlines the results of this analysis.

Results

Overall, patient satisfaction with the care provided at the clinic was exceptional (M= 9.54, SD=1.03). Item analysis revealed that patients were the most satisfied with the level of kindness and respect showed to them (M=4.88, SD=0.39) and the amount of time spent with the provider (M=4.88, SD=0.41). Patients responded that they had decreased understanding the purpose of taking their medications (M=4.42, SD= 0.82). This analysis was based on a Likert scale where the scoring of 3 represents neutral, this could be interpreted as an acceptable answer for patients who don’t take any medications and could have impacted the survey results. Patients were least satisfied with their ability to schedule an appointment as soon as they needed one (M= 4.7, SD=0.59) and the amount of time waited between their scheduled appointment and seeing a provider (M=4.71, SD=0.62). None of the items on the patient satisfaction survey had a mean scoring less than three.

The majority (61%) of survey respondents did not report a visit to the ER in the last three months. Of the survey respondents who did report ER visits the majority (14%) reported two visits within the last three months. Additionally, of the patients who had visited the ER in the last three months, the majority of them reported it was because they did not have a usual place where they receive care (36%) or because they usually receive all their care in the ER (21%). The percentage of survey respondents who did visit the ER decreased over the project period from 69% in October to 34% in January. It is unclear whether this is attributable to implementation of this project or other confounding factors.

Return on Investment

From 2016 to 2021, the uninsured population in CT was one of the subgroups with the highest ER utilization rate (Connecticut Office of Health Strategy [CT OHS], 2022b). Additionally, in Bridgeport CT, those who lack basic needs such as housing, transportation, or access to food have a higher rates of ER utilization (Abraham et al., 2019). When an uninsured patient visits the ER and is unable to pay their bill this is considered an uncompensated cost. In 2021, 834 million dollars of uncompensated care costs were absorbed by acute care hospitals in CT (CT OHS, 2022a). 80% of these uncompensated costs are paid by the government with public funding (Coughlin et al. 2021). The other 20% are thought to be covered by private funding, charity, or allocated to other payers in the healthcare system (Coughlin et al. 2021).

After thorough literature review, it was hypothesized that focusing the clinic's efforts on improving patient satisfaction would result in improved patient retention, willingness to return for care, and decreased ER utilization in the patient population. As the clinic primarily cares for uninsured patients and those with social factors such as food insecurity, lack of transportation, or homelessness it is well suited for improvements aimed at increasing access to care and retention and decreasing ER utilization.

Implementation of the patient satisfaction tool was overall low cost. Training and data collection for this project was conducted on shift. Additionally, the staff working on the project were salaried or volunteers incurring no additional cost to pay team members. Due to project alterations there was no need for IT expertise to incorporate documentation into the EMR or in-service education costs. Therefore, the project costs were limited to the materials needed to conduct PSS.

Over the project period ER utilization decreased from 69% to 34%. On average an ER visit for an uninsured/self-pay patient can cost 460 dollars (AHRQ, 2020). Over the project period 28 respondents reported a visit to the ER in the last three months. Not taking into account that many of these patients reported more than one visit, this cost approximately 12,880 dollars. There is insufficient data to calculate an exact dollar amount of savings in uncompensated healthcare costs. It is anticipated that with the low cost of survey implementation and sustainment even one prevented ER visit as a result of its implementation would result in reduced cost for the patient and decreased uncompensated healthcare costs at local acute care hospitals. This information can be used by the clinic to gather government and private funding to support the ongoing efforts of their clinic and the ongoing costs of this project.

Dissemination

Perhaps, the most important part of quality improvement efforts is to communicate findings. Dissemination aids in the spread of knowledge surrounding quality improvement topics, increases the motivation and ability to use evidence-based practice (EBP), and aids in developing new research questions (AHRQ, 2019; DeNisco, 2021). This process feeds back into the symbiotic relationship of research, EBP, and quality improvement.

Implications on Organization, Practice, and Community

Patients attending the clinic were overall very satisfied with the care they received. Patients perceive that this free community clinic is a place where they are treated with kindness and respect and have access to providers invested in treating them. Hopefully, this perception will grow throughout the community and encourage new patients to attend the clinic. This would further the clinics goal of improving access to care for the underserved.

Results of the survey highlighted improvements at the clinic that can be made to enhance the patient experience. Decreasing wait times for appointments and from appointment time to being seen are areas that the clinic can improve upon. Additionally the lowest scores on the patient satisfaction survey were with the item “I understand the reason for taking my medications.” This represents a need to further investigate if patients attending this clinic understand their medication regimens.

Implementation of a process to collect patient feedback was a major success of this project. Now that an effective process is in place, the clinic can choose to gather patient feedback on any aspect of service delivery they wish. The next logical step may be to use the same process to investigate patient’s knowledge of their medication regimens as this seems to be a need of the population served.

The reason for ER utilization in the population served at the clinic was related to not having a usual place where they receive care. The clinic could further target decreasing ER utilization by educating patients that they can use their clinic as a medical home. The clinic could eventually evolve to provide mainly preventative care to patients instead of acute or illness-based care. Preventative healthcare in the underserved community could be an upstream solution to preventing unnecessary healthcare utilization.

Key Lessons Learned

There were several lessons learned throughout the planning, implementation, and evaluation of this project. The first was that successful implementation of a quality improvement project requires seamless communication amongst all stakeholders involved in the process. There were unanticipated barriers to conducting effective in-service educational sessions with staff. Face-to-face meeting with staff/volunteers yielded low participation and were difficult to schedule. Having a strategy for effective communication at the beginning of improvement initiatives is key to quality improvement project success (Bredal, 2019). Early in the project period, email communication was chosen over face-to-face meetings with the clinic staff and volunteers. Alternatively, creating an orientation video, blog, or newsletter would be an engaging way to communicate the project goals, proposed processes, and roles responsibilities to stakeholders (Bredal, 2019). Additionally, this could be used as an ongoing training method for onboarding hires or volunteers.

Focusing on collecting meaningful data was a key point taken away from conducting this project. Focusing measurements on a quality improvement project directly to its aims is paramount in determining if a change is an improvement (Shah, 2019). Having an open ended question on the patient satisfaction survey tool was an ineffective point of data and impacted the data analysis of this project. The majority of patients did not answer it, and the majority of responses were not focused on the questions intended purpose. Therefore, removing it from the survey going forward may be optimal.

A quality improvement project leader and project team need to foster enthusiasm and optimism throughout the project period to overcome the challenges that will be inevitable during the implementation of quality interventions (Jones et al., 2019). The final lesion learned was the importance of rigorous adherence to the PDSA cycle framework throughout the project period to inspire such enthusiasm and optimism. Allowing for reflection and planning during the implementation phase with select stakeholders, the QI/QA/RM committee, project mentor and advisor was essential in bringing new and valuable ideas forward to try to make the project more successful in meeting its goals.

Traditional Dissemination

An executive summary outlining the project and key outcomes will be submitted to the founder and chair of the clinic. This executive summary can be found in Appendix N. The project results, key lessons learned, and implications for the organization and its practices will be presented at the quarterly QI/QA/RM committee meeting by the DNP project leader. The free community clinic where this project was implemented is a small organization, without affiliation with a health network, in which the pilot project involved all departments. Therefore, external dissemination will be the focus.

Publishing in a peer-reviewed journal is an effective strategy to disseminate the results of quality improvement projects to clinicians and researchers (DeNisco, 2021). Publication of QI initiatives can be used to plan and implement QI projects throughout healthcare systems; the generalizability of results varies due to the real-life complexity of healthcare settings (Perlman & Swanson, 2021). Therefore, rigorous efforts must be made to adequately describe the purpose, methods, results, outcomes, and impact of quality improvements to improve the generalizability of QI efforts. The Standards for Quality Improvement Reporting Excellence (SQUIRE) guidelines provide a framework for reporting new healthcare improvement knowledge and should be adhered to when preparing a QI project manuscript (Perlman & Swanson, 2021). It is paramount to consider the audience of the journal and select one that targets the intended audience (DeNisco, 2021; Perlman & Swanson, 2021). Following sustained practice change at the clinic a QI project manuscript adhering to the SQUIRE guidelines will be prepared and submitted for publication. The journal of community health or the journal of patient experience may be the most appropriate for a QI project involving patient satisfaction within a free healthcare clinic and will be the journals sought for publication. Additionally, results of this project will be presented via oral presentation and poster presentation in March and April of 2023 at SHU.

Non-traditional Dissemination

There is untapped potential in using social media as a dissemination method for QI initiatives as social media posting is correlated to increased citation of articles (Brownson et al., 2018). This is an innovative way to deliver knowledge to the public. A social media post or a published project manuscript disseminated to the public could have a myriad of outcomes for this clinic. This could include increased use of services by the public, increased donations to the clinic, policy change to develop more free healthcare clinics, or other free clinics implementing interventions to monitor patient satisfaction. Expanding beyond academia to disseminate results of QI initiatives to the public casts a wider net for the effects of dissemination.

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Appendix A

Table 1

CHINAL Complete Search Terms and Results.

Search Terms	Results	Title/Abstract Reviewed	Full text reviewed	Selected for appraisal
Patient satisfaction or patient experience	35,667	75	2	2
Measuring patient satisfaction or measuring patient experience	243	243	9	2
Patient satisfaction or patient experience AND quality improvement	487	487	7	4
patient satisfaction or patient experience AND free clinic or ambulatory care or community clinic or student-run clinic	171	171	7	4
patient satisfaction or patient experience AND medically uninsured	51	51	6	1
patient satisfaction or patient experience AND emergency department utilization or emergency service use	105	105	4	2
patient satisfaction or patient experience AND patient loyalty or patient retention	173	173	2	2

Table 2

Medline with Full Text Search Terms and Results

Search Terms	Results	Title/Abstract Reviewed	Full text reviewed	Selected for appraisal
Patient satisfaction or patient experience	238,684	321	4	
Measuring patient satisfaction or measuring patient experience	390	390	10	1
Patient satisfaction or patient experience AND quality improvement	822	20	2	1
patient satisfaction or patient experience AND free clinic or ambulatory care or community clinic or student-run clinic	208	208	3	1
patient satisfaction or patient experience AND medically uninsured	80	80	6	
patient satisfaction or patient experience AND emergency department utilization or emergency service use	103	103	4	1
patient satisfaction or patient experience AND patient loyalty or patient retention	89	89	5	1

Appendix B

Table 3

Evidence Summary Table

Citation	Conceptual framework or purpose of study.	Design/Method	Sample/setting	Major Variables and their definitions	Measurement	Data Analysis	Findings	Level of Evidence (LOE) and Appraisal
Quigley, D. D., Reynolds, K., Dellva, S., & Price, R. A. (2021, May 1). Examining the Business Case for Patient Experience: A Systematic Review. *Journal of Healthcare Management*, *66*(3). https://doi-org/10.1097/JHM-D-20-00207	Author created conceptual Framework of Associations Between Patient Experience and Business Outcomes .	Systematic review of observational studies. Structured search strategy of PubMed, Business Source Complete, and EconLit to identify peer-reviewed studies, limited to U.S. English-language articles from January 1990 to July 2019.	40 studies Inclusion criteria: human subjects, in the US, measures patient experience and business outcomes. Settings: 16 hospital, 5 hospital & ambulatory, 7 within a health plan, 1 nursing home Population: 38 adults, 2 adults & children Study type: 33 cross sectional, 4 longitudinal, 2 retrospective, 1 cross-sectional/retrospective.	IV: Patient experience: overall rating/summary scores, surveys , provider communication, access to care. DV: Business outcomes; patient retention, intent to return, willingness to recommend, provider job satisfaction, complaints, and malpractice claims.	Patient surveys; Press Ganey, HCAHPS, ambulatory survey, hospital surveys, health plan surveys, CAHPS, doctorGuide, inpatient SHEP, Group Health association of America survey, ambulatory care experience survey. Retention: Return of patient, intent to return, disenrollment from health plan, actual return for care. Complaints and Malpractice; organizational specific measures.	Cross-sectional studies; decision tree analysis, correlation, hierarchical lineal models, structural equation modeling, logistic regression, linear regression, LISREL, regression, general estimating equations, generalized method of moments. Longitudinal studies: logistic regression, regression, correlation. Retrospective studies: logistic regression Retrospective & cross-sectional study: ANOVA Double-coding abstraction of articles by two reviewers.	Strongest evidence for positive association between better patient experiences and patient retention and willingness to recommend. Limited evidence to support negative association between positive patient experience and patient complaints. Strong evidence to support overall satisfaction ratings are positively associated with patient retention and willingness to recommend. Positive patient ratings of nursing and physician care are associated with fewer complaints and improved intent-to-return.	LOE: V Strengths: Rigorous review of studies, discussed quality of studies, adhered to the preferred reporting items for systematic reviews and meta-analyses guidelines, heterogenous studies. Limitations: Small sample, mixed findings, outcome measures organization specific, 6 older studies used (before 2000). No null associations (publication bias).
Anhang Price, R., Elliott, M. N., Zaslavsky, A. M., Hays, R. D., Lehrman, W. G., Rybowski, L., Edgman-Levitan, S., & Cleary, P. D. (2014). Examining the Role of Patient Experience Surveys in Measuring Health Care Quality. *Medical Care Research and Review*, *71*(5), 522–554. https://doi.org/10.1177/1077558714541480	Pathways by which patient experiences may be associated with health care quality among providers and systems.	Systematic review of descriptive studies. Ancestry search from Doyle et al. 2013 and additional PubMed search.	38 studies Inclusion: associations between patient-reported experience measures and processes or outcomes of care. English language, published from 1990 through 2013. Study type: Cross sectional, case control, prospective observational cohort. Settings: hospital, ED, managed care organizations, primary care, outpatient neurology, general practice, family practice . Populations: adults, parents of children, geriatric patients +50, community	IV: Patient experience. DV: Outcomes of care: Patient behavior (adherence, follow up, self-management) Clinical process and structures Effectiveness (clinical outcomes) Efficacy (Healthcare utilization), and Patient safety.	Patient experience measures: overall satisfaction rating (HCAHPS) willingness to recommend, access to care (CAHPS), provider communication, Components of Primary Care Instrument, Picker Patient Experience questionnaire, inpatient, Physician–Patient Working Alliance scale, Physician Empathy Questionnaire, Physician Multicultural Competence Questionnaire, Patient Judgment System, trust in physician, General Practice Patient Survey, Survey of Healthcare Experiences of Patients, general Practice Assessment Survey, Interpersonal Processes of Care Instrument, Trust in Physicians Survey, Ambulatory Care Experiences Survey, perception of patient-centeredness care, Quality of care measurements: guideline adherence, 30 day readmission, emergency department utilization, appropriate colorectal	Articles reviewed by authors for consistencies and discrepancies across studies and study quality.	Positive association between positive care experiences and patient adherence and indirect impact on patient outcomes due to adherence. Positive association between positive patient experiences and best practice clinical processes, better hospital patient safety culture, and lower unnecessary utilization QI to improve patient experience may also benefit clinical quality Patient-centered care is associated with less diagnostic testing and specialty referral, fewer hospitalizations and readmissions, and lower costs	LOE:V Strengths: focused clinical question, quality of studies included discussed, no conflicts of interest, all but two articles are current. Limitations: measurements not consistent across studies, variety of populations and settings (may limit generalizability).

			dwelling adults 65+, AMI patients, African American diabetics 25+, breast cancer patients, patients with type two diabetes, breast cancer patients on hormone treatments, African American patients > 40, and African Americans with poorly controlled HTN.		cancer screening, Accessing Care of Vulnerable Elders, hospitalizations, urgent office visits, appropriate screening, receiving health counseling, appropriate immunization, cardiac symptoms and self-reported general health, and mental and physical functioning scales, patient adherence, mortality, medication adherence, self-management, use of services and re-attendance, national pay for-performance Quality and Outcomes, medication adherence, health status, CLABSI, staff reported safety, and frequency of visit.			
Navarro, S., Ochoa, C. Y., Chan, E., Du, S., & Farias, A. J. (2021). Will Improvements in Patient Experience With Care Impact Clinical and Quality of Care Outcomes?: A Systematic Review. *Medical Care*, *59*(9), 843. https://doi-org/10.1097/MLR.0000000000001598	Framework hypothesizes that the actionable aspects of care described by CAHPS composite measures may also have direct relationships with outcomes of care. Drawn from the Andersen Behavioral Model of Health Services.	Systematic Review of descriptive research. Inclusion criteria: Qualitative human adult studies of CAHPS patient experience ratings and clinical quality outcomes of care selected for review from PubMed, Embase, and the Cumulative Index to Nursing and Allied Health Literature databases.	19 studies Study design: cross-sectional, retrospective cohort, matched case-control Settings: hospitals, hospital transplant centers, primary care. Populations: US adults, adult patients with hepatopancreatobiliary disease, gynecologic cancer patient, breast cancer patients 65+, diabetic patients, patients with ASCVD, patients with urologic malignancies, African Americans, insured patients with diabetes, Medicare patients, smokers	IV: Patient experience: experience of access to care and the experience of care from providers that drive health behaviors. DV: Clinical outcomes of care.	Patient experience: Different aspects of CAHPS surveys. Clinical outcomes: physical and mental health status, ER utilization, annual healthcare costs, out of pocket costs, transplant failure, in hospital mortality, length of hospital stay, complications of surgery, 30 day readmissions, breast cancer stage at diagnosis, glycemic control, BP control, and lipid levels, hospital acquired pressure ulcers, medication adherence, hospitalizations, non-home discharges, global rating of health care, global rating of personal physician, pain contol, and quality incentive program score.	Narrative/qualitatively described.	Higher ratings of patient-provider communication associated with higher patient reported physical and mental health scores, fewer ER visits, fewer hospitalizations and length of hospital stay, appropriate medication management of ASCVD adherent to guidelines, lower inpatient mortality, decreased odds of 30 day hospital readmission and improved physician rating. Improved reported access to care: earlier stage of breast cancer diagnosis.	LOE:V Strenghts: focused clinical question, search extremely thorough, reviewers discussed quality of studies, mostly current literature used. Limitations: surveys could have response bias, participants of all studies had to be enrolled in a health plan to participate in CHAPS, specific populations limit generalizability, variables measured in a variety of different ways, 5/9 studies adjusted for participant characteristics - confounding bias,
Fenton, J. J., Jerant, A. F., Bertakis, K. D., & Franks, P. (2012). The Cost of Satisfaction: A National Study of Patient Satisfaction, Health Care Utilization, Expenditures, and Mortality. *Archives of Internal Medicine*, *172*(5), 405–411. https://doi.org/10.1001/archinternm	Purpose: to assess the relationship between patient satisfaction and health care utilization, expenditures, and mortality in a nationally representative sample.	Prospective cohort study of adult respondents to the 2000 through 2007 national Medical Expenditure Panel Survey. 2 years of panel data for each patient and mortality follow-up data through December 31, 2006.	N=51,946 Inclusion: 18 years, reporting having 1 or more physician or clinic visits in the prior year.	IV: Patient Satisfaction: DV: Healthcare utilization: ED utilization, and inpatient admission. DV: Healthcare expenditures: prescription drugs, ant total healthcare costs. DV: Mortality: death within 3.9 years.	Patient Satisfaction: Consumer Assessment of Health Plans Survey. Provider communication ((1) listened carefully, (2) explained things in a way that was easy to understand, (3) showed respect for what they had to say, and (4) spent enough time with them). Rating of overall care 0-10. Healthcare expenditures and healthcare utilization: Medical expenditure panel survey. Self-reported health care utilization. Mortality: death certificate data from the National Death Index linked to the data. Survival time until the time of death or until December 31, 2006.	Patient satisfaction responses standardized and averaged to create quartiles identifying patient satisfaction 1-4 (1 least satisfied and 4 most satisfied). Patient characteristics and patient satisfaction: logistic regression analysis Healthcare utilization and patient satisfaction: logistic regression analysis Health expenditures and patient satisfaction: linear models with logarithm links and Poisson distributions. Mortality and patient satisfaction: Cox	The odds of any emergency department visit were lower among patients in the more satisfied quartiles (adjusted odds ratio [aOR], 0.92; 95% CI, 0.841.00; P= .06) The adjusted odds of any inpatient admission during year 2 were higher among the most satisfied patients (aOR, 1.12; 95% CI, 1.02-1.23; P=.02). The highest year 1 patient satisfaction quartile (vs those in the lowest) had adjusted 8.8% (95% CI, 1.6%-16.6%; P=.02) greater year 2 total health care expenditures and 9.1% (95% CI, 2.3%-16.4%; P=.01) greater prescription drug expenditures. The most satisfied patients had a 26% greater mortality risk (adjusted hazard ratio [aHR], 1.26; 95% CI, 1.05-1.53; P = .02) The association	LOE: IV Strengths: large sample representative of US population, adjusted for confounding variables, MEPS reliable and valid, outcomes and sampling clearly defined, no attrition due to study design. Limitations: Focused on provider aspects of patient satisfaction, healthcare expenditure measured in 1 year after satisfaction measured (not indicative of long term healthcare spending),

ed.2011.1662						proportional hazards regression Analysis were repeated with the exclusion of patients with poor self-rated health and 3 or more chronic diseases. Analyses were performed using STATA/MP 12.0 and StataCorp LP	between higher patient satisfaction and mortality remained significant in an analysis that excluded patients with poor self-rated health and 3 or more chronic diseases (aHR, 1.44; 95% CI, 1.10-1.88; P=.008).	
Zuckerman, K. E., Wong, A., Teleki, S., & Edgman-Levitan, S. (2012). Patient experience of care in the safety net: Current efforts and challenges. *The Journal of Ambulatory Care Management*, *35*(2), 138–148. https://doi.org/10.1097/JAC.0b013e31824a58e9	To gain insights into the needs and challenges that safety-net providers face in collecting and using patient experience of care (PEC) data.	Qualitative research design based on semi-structured interviews.	34 representatives of 27 safety-net organizations in California. Organization Sampling: purposeful sampling that maximized variation in clinic type, size, geographic location, and characteristics of the patient population, including age, gender, race, and ethnicity.	Representatives perspectives on (1) current PEC data collection and analysis practices (2) PEC-related QI initiatives and resources, (3) barriers to PEC data collection, and (4) familiarity with the CAHPS surveys, widely-distributed, public-domain surveys assessing PEC.	Interview guide; Open ended interview questions.	Interview transcripts analyzed using framework analysis. Coding of transcripts using NVivo 8 was done until theme saturation. Most common domains and sub-domains summarized in tabular form.	Measurement tools: patient surveys, focus groups, advisory boards, and comment cards. Instruments: homegrown or modified to fit clinic needs, Bureau of Primary Health Care survey, vendor survey, or unknown source. Characteristics: 1-2 pages long, mean of 19 items on Likert scale, open ended responses, measure patient demographics, most common survey domains were communication, access to services, office staff, and satisfaction/willingness to recommend, offered in English and Spanish, low reading level, adding pictograms, or supplying interviewers in the office to orally conduct the survey with patients who could not read, average 5th grade reading level. Analysis: in house by employees or volunteers, online, none. Dissemination: clinical staff and management, justification for QI efforts or more staff. QI outcomes: improving access to care, decreasing wait times, interpreter services, dental health services, customer service, cultural competency, and clinic amenities such as parking and cleanliness. Used as a measure to evaluate QI efforts. Barriers: lack of resources, lack of knowledge or PEC, lack of QI knowledge, culture or language barriers, lack of trust low literacy, unable to capture whole patient population with one survey mode.	LOE: VI Strengths: Gathered perspective of safety net providers, rigorous qualitative methods. Limitations: purposeful sampling may lead to bias, no population data of sample group, frequency or prevalence of themes not measured.
Asanad, K., Zheng, J., Chan-Golston, A., Tam, E., Bhetraratana, M., Lan, C.-W., Zhao, M., Abdi, R., Abdi, F., Vasti, E., & Prelip, M.	To conduct a pilot evaluation study to assess patient satisfaction of homeless clients receiving health care at the Mobile	Cross sectional. Client satisfaction survey administered at conclusion of visit. Translated by staff for	194 clinic attendees. Convenience sample. No exclusion criteria.	IV: Demographics and clinic status DV: Satisfaction with services. DV: Client outcomes.	Questionnaire: yes/no, multiple choice, and ordinal scale questions administered verbally by clinic staff. Cronbach's value of 0.79, suggesting internal consistency. Demographic questions: gender, age, source of medical care and whether or	Two-proportion z-tests done to analyze sample population to compare to actual population. Descriptive statistics were used to calculate mean satisfaction scores and standard deviation for each category.	Overall satisfaction in clinic services. The lowest satisfaction category is Time to Receive Service with a mean score of 3.5 (SD = 0.69), and the highest is Staff Friendliness with a mean score of 3.9 (SD = 0.38). 96 participants who received referrals to external services,	LOE: VI Strengths: Measurement tool demonstrated high internal consistency, free clinic population increases application of information to DNP project population.

L. (2018). Assessing quality of care through client satisfaction at an interprofessional student-run free clinic. *Journal of Interprofessional Care*, *32*(2), 203–210. https://doi.org/10.1080/13561820.2017.1395827	Clinic Project (MCP) of the University of California Los Angeles (UCLA),	Spanish speaking patients when able.			not this was the client's first visit to the clinic Satisfaction questions: staff, site, and services Client outcomes: perceived access, ED utilization, willingness to return, and willingness to recommend.	Wilcoxon-Rank Sum tests were used to determine if subgroups of respondents significantly differed in their median satisfaction score.	78 individuals (81.3%) answered that the MCP improved their access to other healthcare resources. 147 out of 164 respondents (89.6%) prefer MCP to an ER (ER) or department for non-emergency care. Areas for improvement: wait time to receive care, clinic safety, clinic cleanliness. Quality initiatives: regular trash sweeps and cleaning, clearing exit pathways.	Limitations: reliability and validity of outcome measures not discussed. Non-response bias. Small sample size.
Schroeder, M. N., & Hickey, M. O. (2020). Patient Satisfaction With Diabetes Care in a Student-Run Free Medical Clinic: A Quality Improvement Study. *Journal of Pharmacy Technology*, *36*(2), 61–67. https://doi-org/10.1177/8755122519899084	To assess patient satisfaction with diabetes care at a student run-free clinic .	Cross-sectional. Survey administered to convenience sample of patients attending the Community Care Free Medical Clinic in Toledo.	25 participants Inclusion: 18+ years old, diagnosed diabetes (type 1 or 2), established patient of Community Care Free Medical Clinic (not first visit).	Patient demographics Patient satisfaction Diabetes self management Lifestyle behaviors	Survey questions either were developed independently or were modified from 3 validated questionnaires: the Shade Tree Patient Satisfaction Survey, Diabetes Treatment Satisfaction Questionnaire, and Diabetes Self-Management Questionnaire 6 demographics questions and 26 survey questions (6 in overall satisfaction, 8 in self-management, and 12 in healthy eating and exercise) with an open comment box following each of the 3 sections	SPSS Statistics for Windows, Version 23.0 Patient demographics: descriptive statistics Each survey question was analyzed using Mann-Whitney U test or McNemar's $\chi 2$ test to compare responses among ages (<65 or ≥65 years old), sex (male or female), length of diabetes diagnosis (<1 or ≥1 year), or time attending the CCFMC (<1 or ≥1 year) in order to identify other potential areas of improvement. P <.05 statistically significant.	Overall satisfaction with clinic was good – 88% Areas identified for continued QI efforts: patient education and goal-setting centered on routine self-monitoring and tracking and with regard to changes in diet and physical activity. Patient counseling on the importance of routinely checking and recording blood glucose levels, healthy eating and exercise to be incorporated into each visit. Offered guidance on ways to find more affordable testing supplies. Written educational materials on healthy eating and exercise. Exercise demonstrations and free exercise classes could be offered at the CCFMC site during clinic hours. Women and patients with longer diagnosis have better understanding of diabetes. Baseline knowledge should be assessed by the medical team to further determine which aspects of diabetes care require attention. Younger population more reliable with glucose testing.	LOE: VI Strengths: Inclusion criteria, validated measurements. Limitations: Small sample size, limited generalizability, unknown if sample population representative of actual population, single clinical site, English only.
Reed, C., Rabito, F. A., Werthmann, D., Smith, S., & Carlson, J. C. (2019). Factors associated with using alternative sources of primary care: A cross-sectional study. *BMC Health Services Research*, *19*(1), N.PAG-N.PAG. https://doi.org/10.1186/	To test the associations between travel distance, perceived quality of care, and satisfaction adjusted distance on utilization of alternative health care clinics (school based, mobile, and community) in underserved populations.	Cross sectional.	N=292 Adults (n = 165), child caregivers (n = 124) residing in New Orleans, Louisiana between 2014 and 2015 were conveniently sampled. Eligible participants included adults (age ≥ 18), caregivers of children aged 5–17, and caregivers of adults who resided in New Orleans and who spoke Spanish or English.	IV: Geographical access IV: Perceptions of quality and barriers to care IV: Satisfaction adjusted distance DV: Healthcare utilization	57-item questionnaire including socio-demographic characteristics, perceptions of alternative health clinics, barriers to care, usual source of health care, presence of chronic diseases, connectivity of care, and health care utilization Geographical access: distance between the participant's reported home address and the nearest eligible clinic Perceptions of quality and barriers to care: Barriers to Care Questionnaire (BCQ). Perceived quality of care and geographic distance: Satisfaction-Adjusted Distance; [0.1x(meanBCQ-individual BCQ]+travel distance	Continuous variables: mean and standard deviation Categorical variables: number and proportion Bivariate logistic regressions were performed to examine the independent relationship between clinic utilization and three indicators of perceived access (geographic distance, BCQ score, and SAD). Multivariate models used to control for potential confounding variables.	Higher perceived quality, measured by total BCQ score, was significantly associated (OR 1.02; 95% CI 1.01–1.04) with increased utilization. Higher SAD score (indicating less perceived access) was negatively associated (OR 0.81; 95% CI 0.73–0.91) with utilization. Travel distance, measured in miles, was not independently associated with clinic utilization (OR = 0.91, 95% CI 0.74–1.11). The type of respondent (adult vs. child caregiver), insurance status, the length of time having visited one place, and having the same provider were all significantly associated with clinic utilization.	LOE: VI Strengths: alternative clinic (community) makes application of results in DNP project population feasible, BCQ valid and reliable, measurements addressed clinical question, outcomes well defined. Limitations: Cross sectional design prevents assessing whether variables predict utilization, convenience sample and the restriction of the sample to New Orleans may limit generalizability of the findings, covariates may be

s12913-019-4743-4					Healthcare utilization: self-report of use of mobile, community or school based clinic.	p-values < 0.05 were considered statistically significant Results represented as OR with 95% CI. SAS statistical software version 9.4	Perceived quality (aOR = 1.02, 95% CI 1.01–1.04) and SAD (aOR = 0.84, 95% CI 0.74–0.96) remained significant predictors of utilization in models adjusted for insurance status, adult or caregiver respondents, length of visit place and person.	representative of sampling bias, geographical access measure from home not indicative of actual access to care.
Wong, C. Y., & Hall, J. (2018). Does patients' experience of general practice affect the use of emergency departments? Evidence from Australia. *Health Policy*, *122*(2), 126–133. https://doi-org/10.1016/j.healthpol.2017.11.008	To examine the effect of patient reported experience of their GP care on the probability of ED attendance.	Cross Sectional	N=2304 Eligible: Australians over the age of 16, with GP density information available.	IV: Patient experience with primary care. IV: GP density (major cities, regional areas, outer regional/remote areas). DV; ED utilization	Online survey conducted in July 2013 Patient experience measured by 5 questions: overall score and scores on individual questions examined. GP density: remoteness calculated matching postal codes with 2011 Remoteness Classification and primary care availability calculated by GPs per 1000 population. ED utilization: self-reported.	STATA version 13 Mean and SD for each variable calculated. Logistic regression to calculate OR of dependent outcome of ED utilization for each independent variable (5 aspects of patient experience + cumulative score)	Individuals who live in inner and outer regional areas have higher odds of using the ED. Individuals who have a high perceived quality of GP experiences tend to have lower odds of ED use-effect is larger for socio-economically vulnerable groups.	LOE: VI Strengths: Reliability and validity of measurements discussed, Large sample size, controlled for confounding variables, outcomes measure question, sensitivity analyses done to assess the validity of quality indicators, statistically significant results, effect size of outcomes discussed for subgroups, OR reported, no conflicts of interest, majority of literature current. Limitations: Measure of ED utilization broad and poorly described (y/n), CI or OR not reported, convenience sample could cause response bias.
Haichang Xin. (2019). Patient Dissatisfaction With Primary Care and Nonurgent Emergency Department Use. *Journal of Ambulatory Care Management*, *42*(4), 284–294. https://doi-org/10.1097/JAC.0000000000000301	To examine whether patient negative experiences during their encounter with a primary care physician (PCP) are associated with nonurgent ED use nationwide in the United States.	Retrospective cohort study. Data from the 2010-2011 Medical Expenditure Panel Survey.	5242 adults Complex multistage, unequal probability, and cluster sampling study design Eligibility: 18+, doctor's office or clinic in the past 12 months, had no ED visit or any nonurgent ED visits, and had complete MEPS data.	IV: patient satisfaction IV: patient perceived quality DV: non-urgent ED utilization Covariables: age gender, race and ethnicity, rural/urban location, marital status, education levels, and insurance status.	MPES data collected from 5 rounds of in-person interviews. ED utilizations: MEPS Medical Provider Component, which collected utilization and cost data from medical providers to validate the MEPS data. Non-urgent: all visits that did not result in admission, were not related to accident or injury, where imaging, procedures, diagnostics, or surgical procedure was done, or where not a result of a referral. Satisfied: answered always or usually to all patient satisfaction questions Dissatisfied: answered sometimes or never to all patient satisfaction questions Care quality: CHAPS questions Low quality: 0-5 Intermediate quality:5-9 High quality: 9-10	Logistic regression STATA version 13 w	Patient perceived poor and intermediary levels of primary care quality had higher odds of a nonurgent ED visit (OR = 1.75, P = .049, and OR = 1.48, P = .050, physician communication measure was NOT statistically associated with nonurgent ED use patients' experience as a measure of primary care quality thus plays a key role in jointly representing care performance	LOE:IV Strengths: Large sample size representative of US population increases feasibility of data for DNP project, power analysis done to ensure adequate sample size of sub populations, reliability and validity measurement tools, confounding factors discussed and adjusted for in analysis, majority of literature current, retrospective design eliminated attrition. Limitations: Observation period of 1 year may limit the data, only slight statistical significance, confidence intervals and effect size for logistic regression not reported.

Appendix C

Levels of Evidence Synthesis Table: PICO 1

PICO Question #1: In patients accessing outpatient clinics (P) does patient satisfaction (I) compared to patient dissatisfaction (C) influence utilization of emergency department services, perceived access to care, and likelihood to return for care (O)?

X (copy symbol as needed)	1	2	3	4	5	6	7
Level I: Systematic review or meta-analysis							
Level II: Randomized controlled trial							
Level III: Controlled trial without randomization							
Level IV: Case-control or cohort study				X		X	
Level V: Systematic review of qualitative or descriptive studies	X	X	X				
Level VI: Qualitative or descriptive study, CPG, Lit Review, QI or EBP project					X		X
Level VII: Expert opinion							

LEGEND

1= Quigley et al., 2021. **2=** Anhang et al., 2014. **3=** Navaro et al., 2021 **4=** Fenton et al., 2021. **5=** Wong et al., 2018. **6=** Haichang Xin, 2019. **7=** Reed et al., 2019.

Outcome Synthesis Table: PICO 1

↑, ↓, NE, ✓ (select symbol and copy as needed)	1	2	3	4	5	6	7
EDU	**NE**	**NE**	↓	↓	↓	↓	**NE**
WTR	↑	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
PR	↑	**NE**	**NE**	**NE**	**NE**	**NE**	↑
ITR	↑	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
UHU	**NE**	↓	**NE**	**NE**	**NE**	**NE**	**NE**
UPSMT	✓	✓	✓	✓	✓	✓	✓

SYMBOL KEY

↑ = Increased, ↓ = Decreased, NE = Not Examined, ✓ = applicable or present

LEGEND

1= Quigley et al., 2021. **2=** Anhang et al., 2014. **3=** Park et al., 2017. **4=** Fenton et al., 2021. **5=** Wong et al., 2018. **6=** Haichang Xin, 2019. **7=** Reed et al., 2019.

EDU=Emergency Department Utilization, WTR= Willingness to Return, PR= Patient Retention, ITR= Intent to Return, UHU= Unnecessary Healthcare Utilization, UPSMT= Use of Patient Satisfaction Measurement Tool.

Levels of Evidence Synthesis Table: PICO 2

PICO Question #3: At a community-based clinic (P) does measuring patient satisfaction (I) compared to no measurement (C) influence organizational quality improvement?

X (copy symbol as needed)	**1**	**2**	**3**	**4**	**5**
Level I: Systematic review or meta-analysis					
Level II: Randomized controlled trial					
Level III: Controlled trial without randomization					
Level IV: Case-control or cohort study					
Level V: Systematic review of qualitative or descriptive studies	X	X			
Level VI: Qualitative or descriptive study, CPG, Lit Review, QI or EBP project			X	X	X
Level VII: Expert opinion					

LEGEND

1= Anhang et al., 2014. **2=** Navaro et al., 2021 **3=** Zuckerman et al., 2012. **4=** Asanad et al., 2018. **5=** Schroeder et al., 2020.

Outcome Summary Synthesis: PICO 2

↑, ↓ , NE, ✓ (select symbol and copy as needed)	**1**	**2**	**3**	**4**	**5**
EBPU	↓	**NE**	**NE**	**NE**	**NE**
PS	↑	**NE**	**NE**	**NE**	**NE**
AQII	**NE**	**NE**	✓	✓	✓
QII	**NE**	**NE**	✓	✓	**NE**
ACG	**NE**	↑	**NE**	**NE**	**NE**
UPSMT	✓	✓	✓	✓	✓

SYMBOL KEY

↑ = Increased, ↓ = Decreased, NE = Not Examined, ✓ = applicable or present

LEGEND

1= Anhang et al., 2014. **2=** Navaro et al., 2021 **3=** Zuckerman et al., 2012. **4=** Asanad et al., 2018. **5=** Schroeder et al., 2020.

EBPU=Evidence Based Practice Use, PS=Patient Safety, AQII=Areas for Quality Improvement Identified, QII= Quality Improvement Initiatives, ACG=Adherence to Clinical Guidelines, UPSMT= Use of Patient Satisfaction Measurement Tool

Appendix D

DR. SUSAN L. DAVIS, R.N.,
& RICHARD J. HENLEY
COLLEGE OF NURSING
Sacred Heart University

BSN- FNP/DNP Hybrid Program
DNP Project Practice Site Mentor — Letter of Agreement

Student and Faculty Information:

Student Name; **Nora O'Sullivan**

Student telephone # and email address:**203-400-2046, osullivann2@mail.sacredheart.edu**

Faculty Project Advisor Name: **Dr. Sue Penque, Ph.D., ANP-BC, NE-BC**

Email: **penques@sacredheart.edu**

DNP Project Site Mentor Information (Please type):

Mentor's Name and Credentials **Dr. Irene Bihl DNP, MBA, FNP-BC, PMHNP-BC, APRN**.

Email: **ibihl@shcare.com**

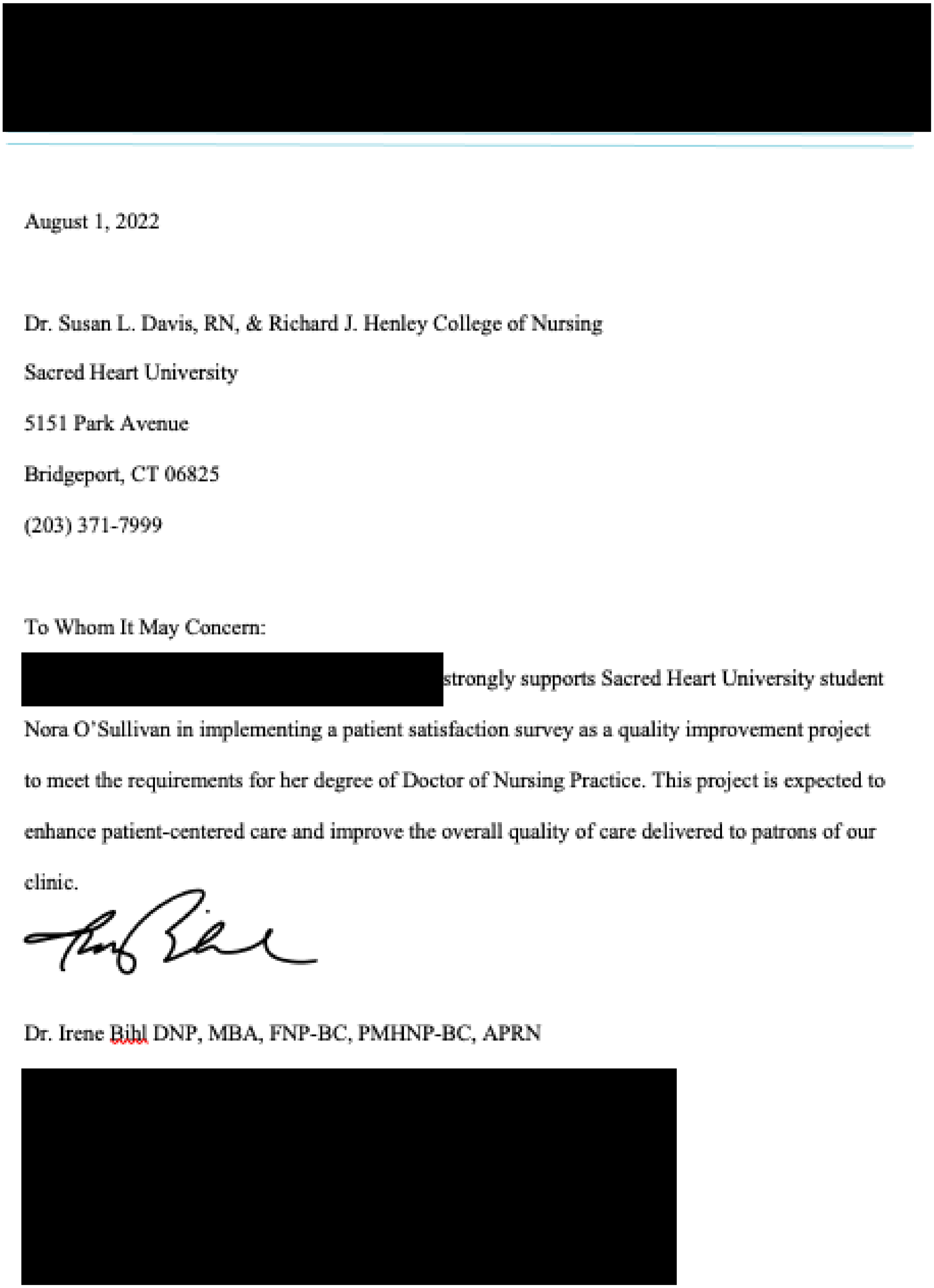
Position and Title: **Founder, Chair, Nurse Practitioner**

Facility Address: [redacted] City, State, Zip: [redacted]

Consent to Mentor the Student for the DNP Project.

I am authorized to mentor and support the above student with the DNP project development and implementation at this facility. I received a copy of the DNP project course objectives, DNP project practice mentor overview, and student responsibilities workflow as it relates to my role in the project (attached below). If applicable, I will support the student with IRB application (or equivalent) for this project. I will provide feedback to the student during the course of the DNP project. I agree to participate in the final approval of the DNP project proposal and coordinate an opportunity for the student to present his/her final DNP project to the appropriate personnel at facility.

Practice Mentor Signature: DNP, FNP-BC, PMHNP-BC



[redacted]

August 1, 2022

Dr. Susan L. Davis, RN, & Richard J. Henley College of Nursing
Sacred Heart University
5151 Park Avenue
Bridgeport, CT 06825
(203) 371-7999

To Whom It May Concern:

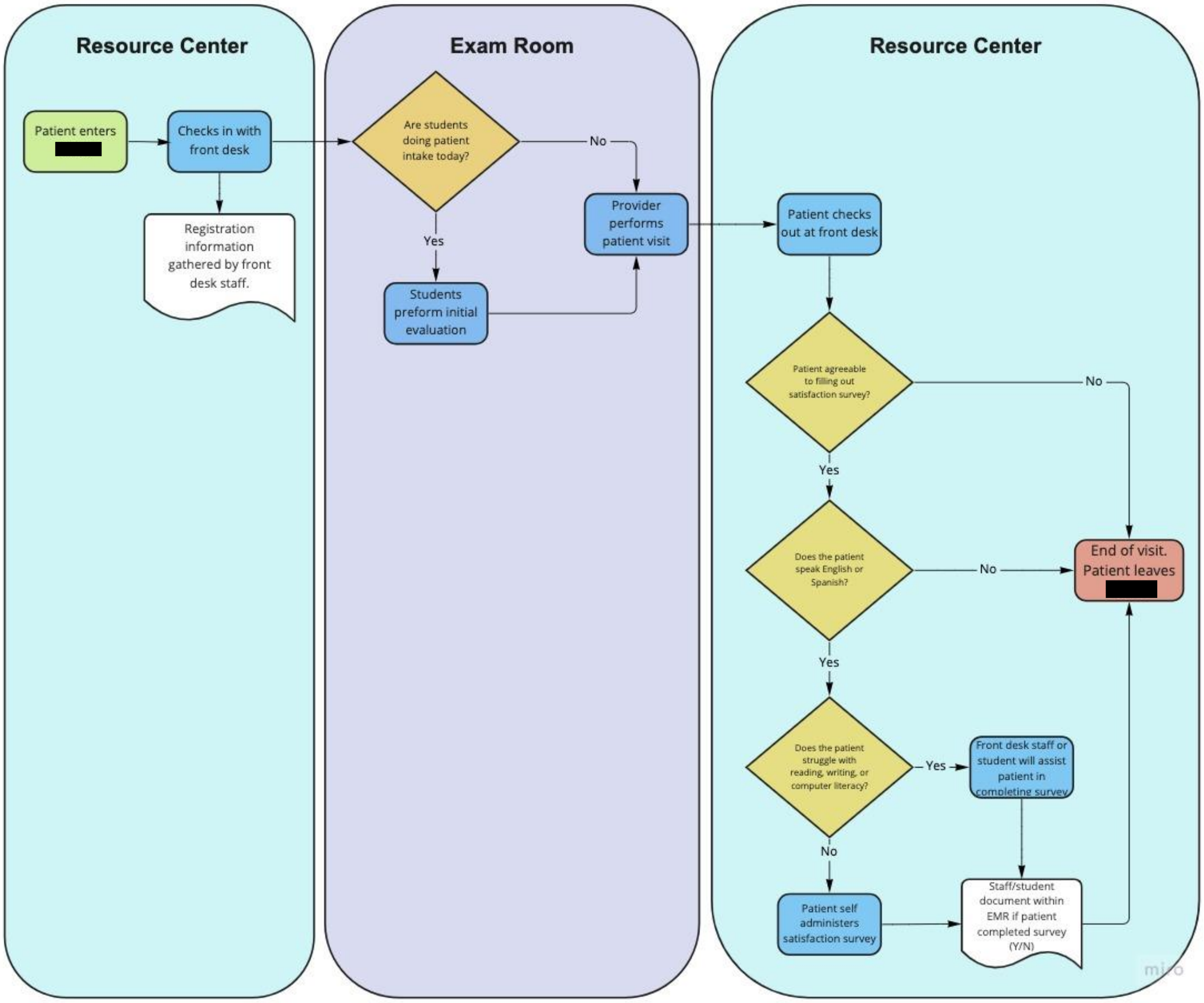
[redacted] strongly supports Sacred Heart University student Nora O'Sullivan in implementing a patient satisfaction survey as a quality improvement project to meet the requirements for her degree of Doctor of Nursing Practice. This project is expected to enhance patient-centered care and improve the overall quality of care delivered to patrons of our clinic.

Dr. Irene Bihl DNP, MBA, FNP-BC, PMHNP-BC, APRN

[redacted]

Appendix E

Proposed Workflow; Process Map



Appendix F

Patient Satisfaction Survey					
Please indicate how strongly you **AGREE** or **DISAGREE** with the following statements.					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I was able to get an appointment as soon as I needed one.	5	4	3	2	1
I was treated with kindness and respect.	5	4	3	2	1
The provider took my concerns seriously.	5	4	3	2	1
The staff worked well together to take care of me.	5	4	3	2	1
The provider spent enough time with me.	5	4	3	2	1
The instructions given to me were clear and easy to understand.	5	4	3	2	1
The provider involved me in making decisions about my care.	5	4	3	2	1
I understand the purpose for taking each of my medications.	5	4	3	2	1
The waiting area and exam room were clean.	5	4	3	2	1
I didn’t wait long after my scheduled appointment time to be seen by a provider.	5	4	3	2	1
In the last 3 months, how many times have you visited the emergency department to receive care?	1				
	2				
	3				
	4				
	5 or more				
If you have been to the ER in the last 3 months, what was the reason for your visit?	I don’t have a usual place where I get care.				
	The clinic I usually go to was closed.				
	I was unable to make an appointment at the clinic I go to.				
	My problem was too serious to be seen in the clinic.				
	I usually receive all my care in the ER.				
	Other reason.				
How else can we improve how we take care of you?					

Appendix G

Table 4

Project Budget

	Start Up Cost	Monthly Cost
Written Survey		
Paper	6.00$	6.00$
Pens	8.00$	8.00$
Printing	3.00$	3.00$
IT specialist (26$/hr)	26.00$	0.00$
In-service Breakfast	24.00$	24.00$
Total	**67.00$**	**41.00$**
Online Survey		
Survey Monkey subscription	25.00$	25.00$
IT specialist (26$/hr)	52.00	0.00$
In-service Breakfast	24.00$	24.00$
Total	**101.00$**	**49.00$**

Appendix H

Table 5

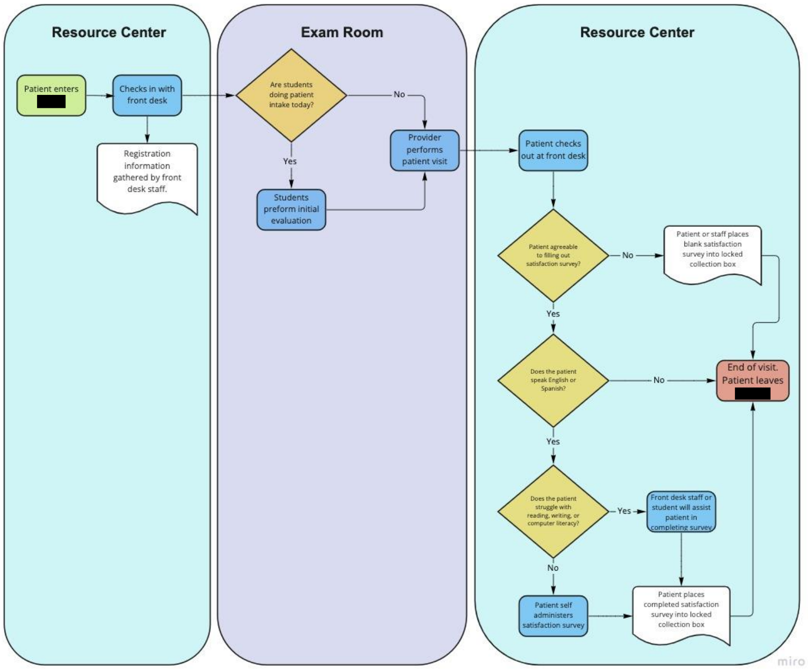
Differentiating Quality Improvement and Research Activities Tool

Question		Yes	No
1.	Is the project designed to bring about immediate improvement in patient care?	X	
2.	Is the purpose of the project to bring new knowledge to daily practice?	X	
3.	Is the project designed to sustain the improvement?	X	
4.	Is the purpose to measure the effect of a process change on delivery of care?	X	
5.	Are findings specific to this hospital?	X	
6.	Are all patients who participate in the project expected to benefit?	X	
7.	Is the intervention at least as safe as routine care?	X	
8.	Will all participants receive at least usual care?	X	
9.	Do you intend to gather just enough data to learn and complete the cycle?	X	
10.	Do you intend to limit the time for data collection in order to accelerate the rate of improvement?	X	
11.	Is the project intended to test a novel hypothesis or replicate one?		X
12.	Does the project involve withholding any usual care?		X
13.	Does the project involve testing interventions/practices that are not usual or standard of care?		X
14.	Will any of the 18 identifiers according to the HIPAA Privacy Rule be included?		X

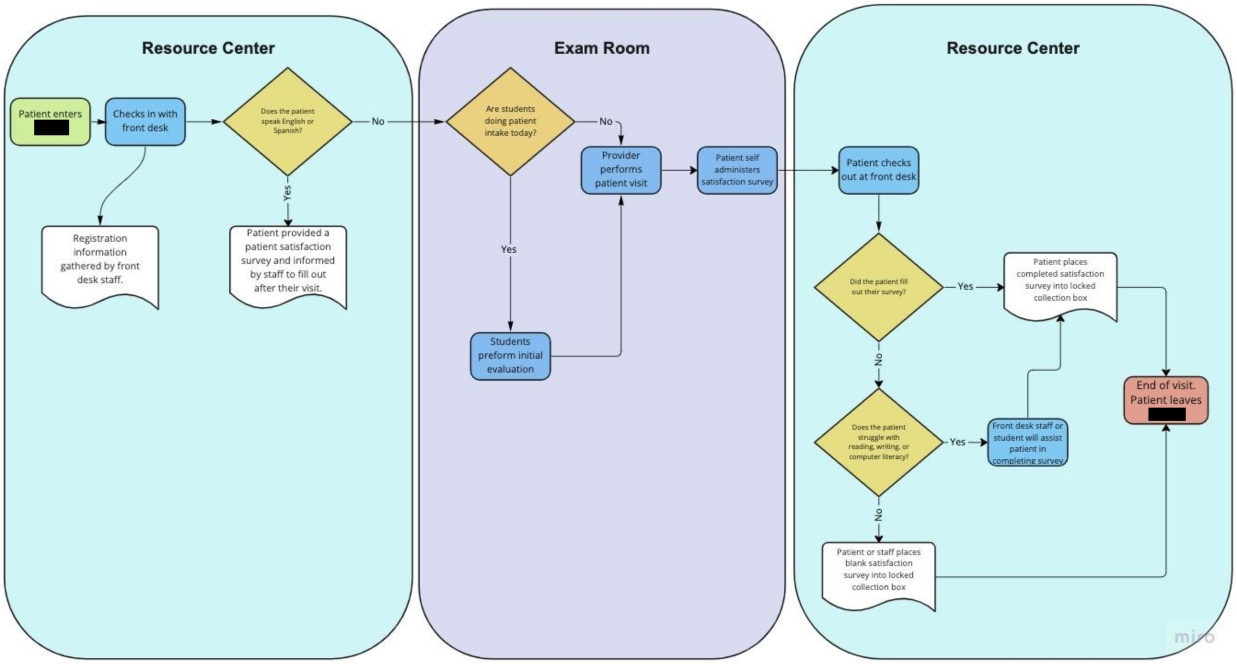
Note. Adapted from Foster, J. (2013). Differentiating quality improvement and research activities. Clinical Nurse Specialist, 27(1), 10–3. https://doi.org/10.1097/NUR.0b013e3182776db5

Appendix I

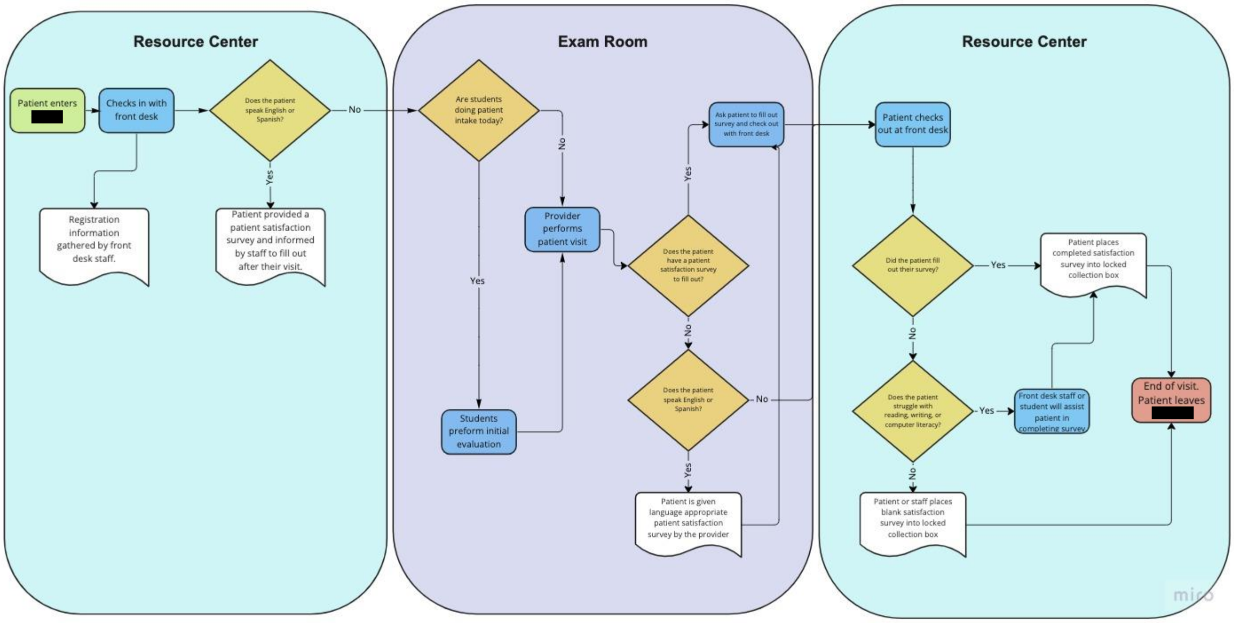
PDSA Cycle One; Process Map



PDSA Cycle Two; Process Map

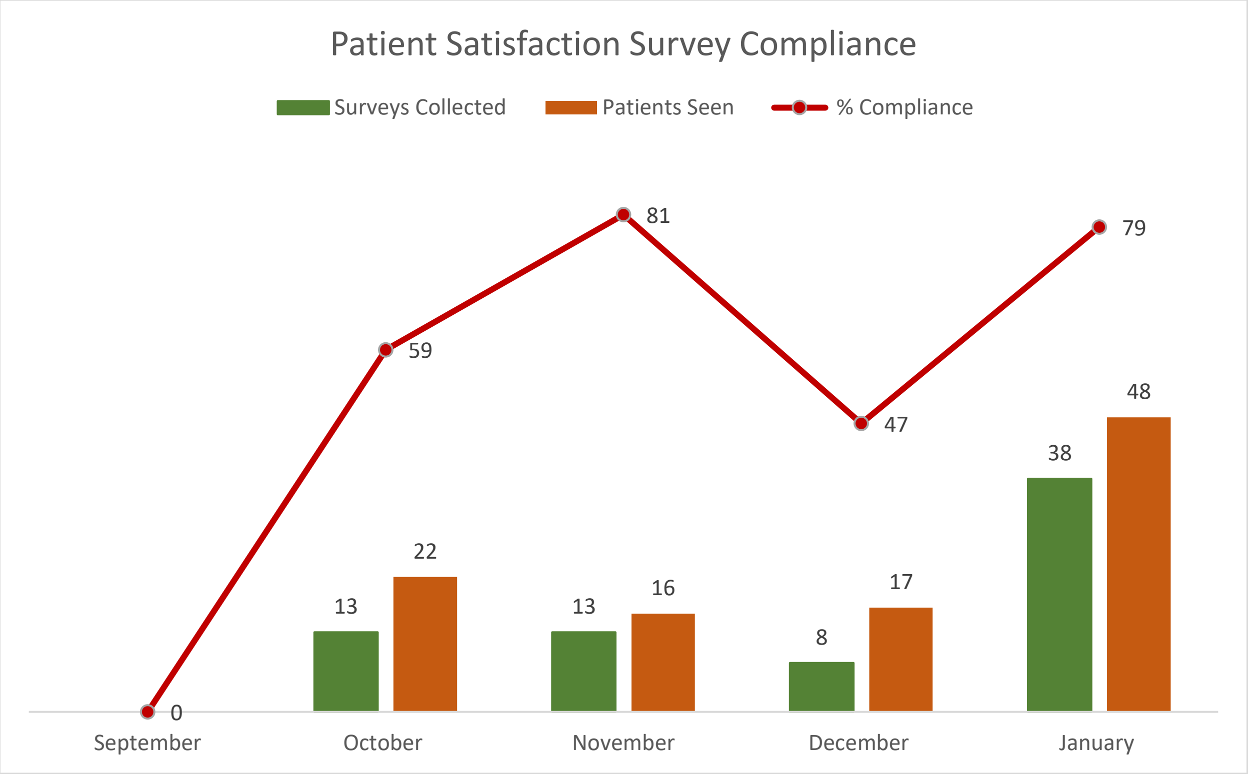


PDSA Cycle Three; Process Map



Appendix J

Staff Compliance With Administration and Collection of Surveys



Appendix K

Table 6

Content Analysis of Online Staff Questionnaire

Questionnaire Item	Theme	Category	Select Units of Meaning
Have you been involved in administering and collecting patient satisfaction surveys? If not, please explain why.	Project Involvement	Involved	“Yes” “I check that patients got the survey”
		Uninvolved	“I don’t always connect with patients”
	Roles and Responsibilities	Identification	“The front desk is handling this”
What barriers have you encountered to administering and collecting patient satisfaction surveys?	Patient Barriers	Language and literacy	“language and literacy considerations…” “there are language barriers”
		Time	“patient’s don’t want to take the time”
How has the implementation of patient satisfaction surveys impacted your work at the clinic?	Work responsibilities	Burdensome	“it is a additional non-clinical task to complete”
		Non-burdensome	“not a problem at all” “not at all”
	Impact on patient care	Positive	“Reminds us that we need to be aware of how we treat patients”
In your opinion, what improvements can be made to the process of administering and collecting patient satisfaction surveys?	Project implementation	Process	“process is in place” “the process works well how it is set up”
	Roles and responsibilities	Identification	“Start the process with a staff and volunteer meeting (with all providers present) so were all on the same page and know our roles”

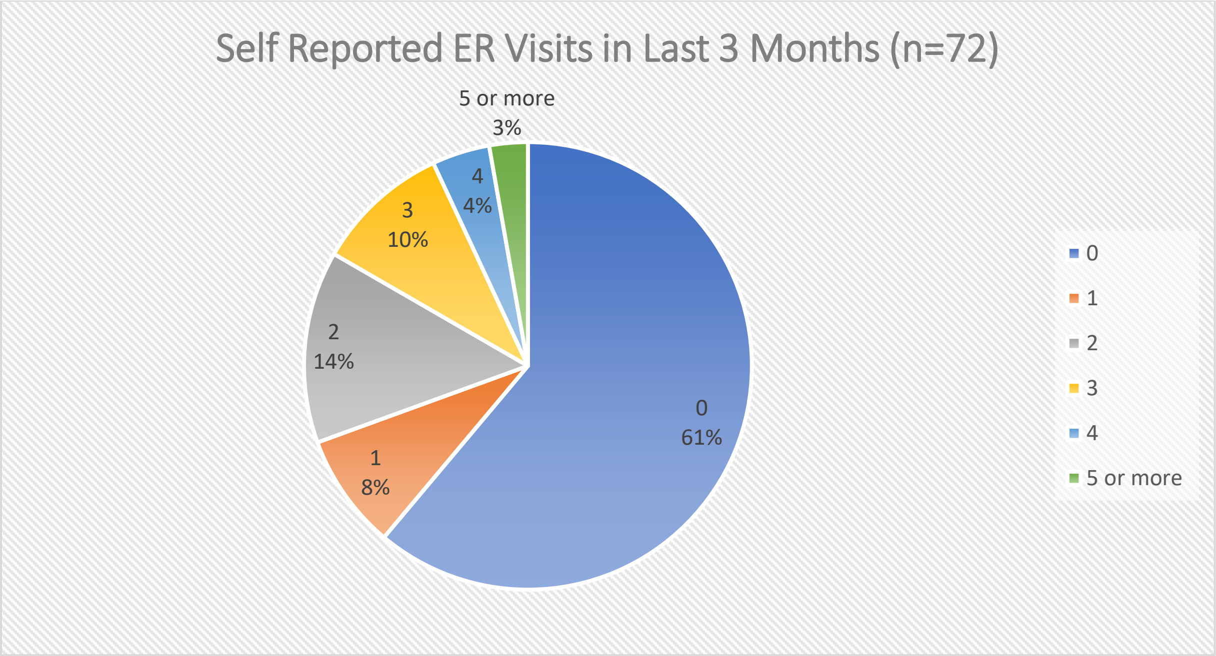
Appendix L

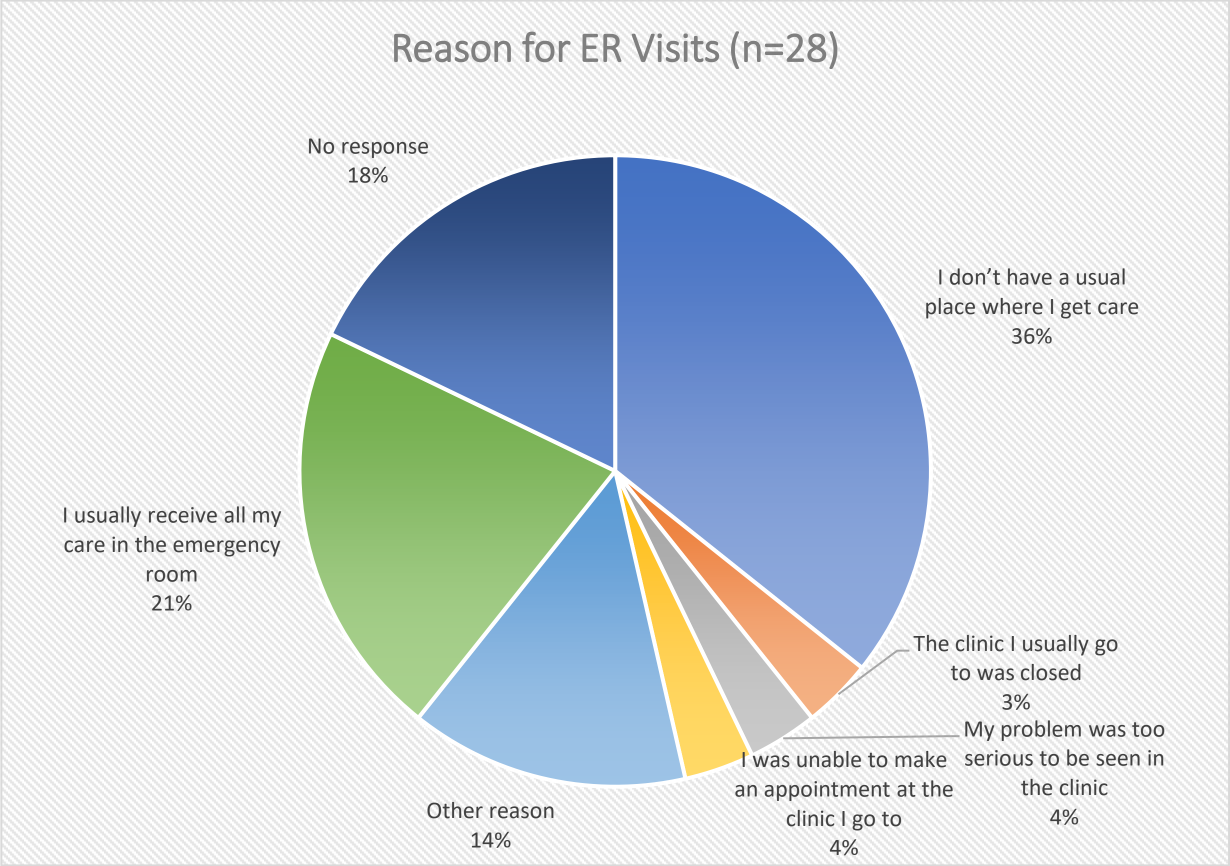
Table 7

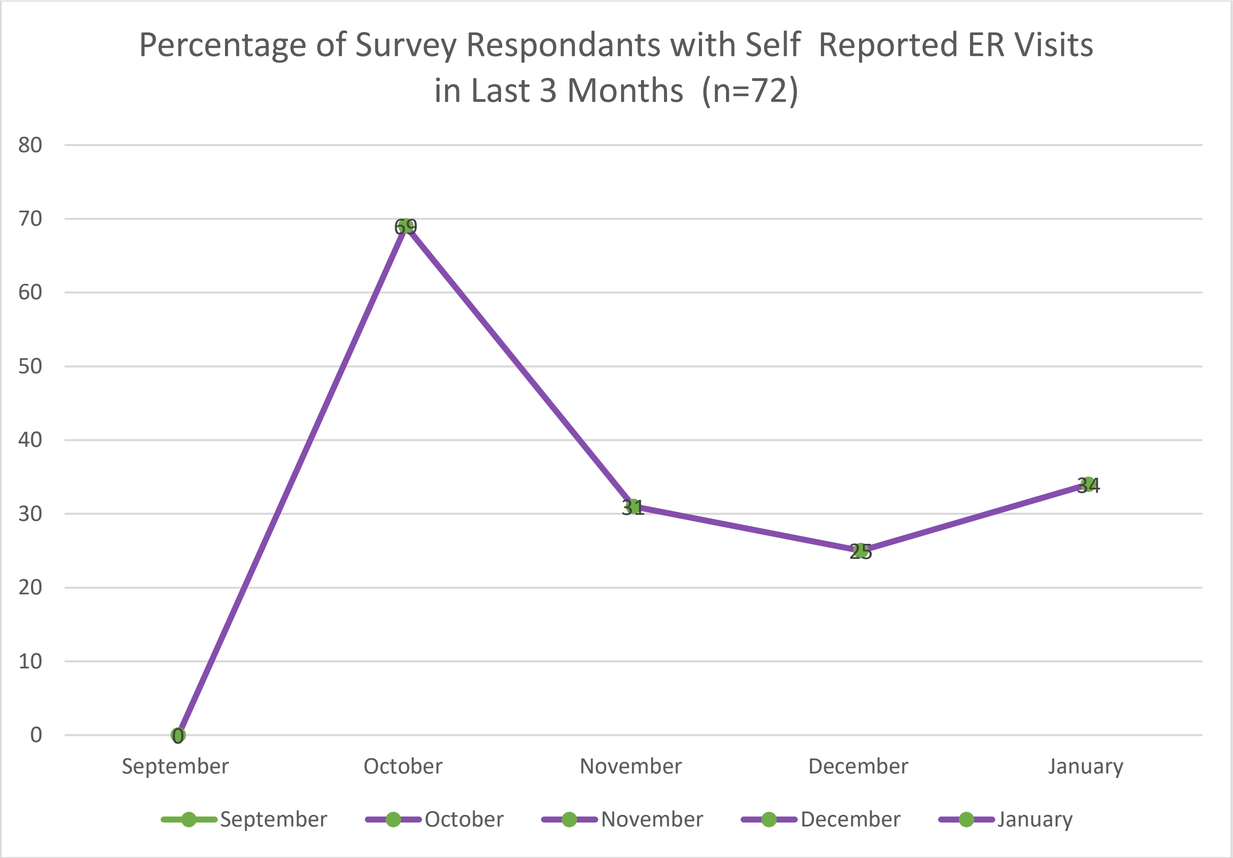
Item Analysis of Patient Satisfaction Survey Results (n=72)

Survey Item	Mean	Standard Deviation
I was able to get an appointment as soon as I needed one	4.70	0.59
I was treated with kindness and respect	4.88	0.39
The provider took my concerns seriously	4.83	0.47
The staff worked well together to take care of me	4.79	0.53
The provider spent enough time with me	4.88	0.41
The instructions given to me were clear and easy to understand	4.72	0.61
The provider involved me in making decisions about my care	4.74	0.56
I understand the purpose for taking each of my medications	4.42	0.82
The waiting area and exam room were clean	4.77	0.56
I didn’t wait long after my scheduled appointment time to be seen by a provider	4.71	0.62
On a scale of 0 to 10 how satisfied are you with your care today?	9.54	1.03

Appendix M


Self Reported ER Visits in Last 3 Months (n=72)
5 or more
3%
4
4%
3
10%
2
14%
1
8%
0
61%
0
1
2
3
4
5 or more


Reason for ER Visits (n=28)
No response
18%
I don’t have a usual place where I get care
36%
I usually receive all my care in the emergency room
21%
The clinic I usually go to was closed
3%
My problem was too serious to be seen in the clinic
4%
I was unable to make an appointment at the clinic I go to
4%
Other reason
14%


Percentage of Survey Respondants with Self Reported ER Visits in Last 3 Months (n=72)
80
70
60
50
40
30
20
10
0
0
69
31
25
34
September
October
November
December
January
September
October
November
December
January

Appendix N

Executive Summary

Focusing on improving the patient experience is a way for healthcare organizations to prioritize and improve patient centered care. As patient experience data is so closely tied to reimbursement from state and private insurances patient experience data has primarily been collected on insured populations. The uninsured population suffers from health disparities and inequities which affect how they experience healthcare. Organizations that provide healthcare to the uninsured do not receive incentives or reimbursement from insurance which limits the support and funding they have to collect patient experience feedback data. In Bridgeport CT, there is a large population of uninsured individuals who experience barriers to accessing patient centered care and who have relative higher use of local emergency rooms.

There is strong evidence that supports that improved patient satisfaction lowers the odds of emergency department utilization and increases patient retention. Additionally, evidence shows that organizations who provide care to disadvantaged populations can use patient satisfaction surveys to identify areas in which patient centered care can be improved. [redacted] is a newly established free clinic in Bridgeport CT that strives to increase access to quality healthcare for the underserved and meet the community's healthcare needs. It is an organizational priority of [redacted] to provide care that is culturally competent and patient centered. Therefore interventions are needed to identify barriers to accessing patient centered care to improve access to quality healthcare and decrease unnecessary emergency service utilization. To best understand the patient experience and how best to improve it, healthcare organizations need to implement valid and reliable tools to measure the patient experience.

The Model for Improvement framework guided the implementation of a process and tool to measure patient satisfaction at [redacted]. The survey tool was derived from valid and reliable existing patient satisfaction surveys and additional questions regarding emergency room (ER) utilization were included. The internal Quality Assurance/Quality Improvement/Risk Management (QA/QI/RM) committee reviewed and approved the tool for use. Three Plan-Do-Study-Act Cycles were conducted to implement the survey and changes to the process were made with each cycle to ensure that the implemented process fit the clinic work flow. Additionally, sustainment strategies were deployed in each cycle to facilitate staff and patient engagement with the project. Surveys were administered and collected from patients attending the clinic over a 16 week period. Staff compliance with administering and collecting surveys, mean patient satisfaction scores, frequency and reasoning for emergency room (ER) utilization, areas identified for quality improvement, and staff feedback on the implementation process acted as evaluation measures to determine the success in meeting the project goals.

Over the 16 week project period 72 surveys were administered and collected from patient attending the clinic. Throughout the implementation period the process of administering and collecting patient satisfaction surveys was successfully weaved into the current workflow at the clinic as demonstrated by staff/volunteer feedback and a calculated 79% staff compliance with administering and collecting the survey. To ensure sustainment of the project the QA/QI/RM committee continues to oversee the process and track trends in patient satisfaction to identify areas for quality improvement. Now that an effective process is in place the clinic can choose to monitor patient satisfaction with any aspect of care. Additionally, patient satisfaction can be used as an outcome measure in future quality improvement initiatives at the clinic.

Overall, patient satisfaction with the care provided at [redacted] was exceptional (M= 9.54, SD=1.03). Patients were the most satisfied with the level of kindness and respect showed to them (M=4.88, SD=0.39) and the amount of time spent with the provider (M=4.88, SD=0.41). Hopefully, this perception will grow and encourage new community members to attend the clinic as well as encourage patients of the clinic to return for care. This will help the clinic in achieving its goal to improve access to quality healthcare for the underserved.

Patients were least satisfied with their ability to schedule an appointment as soon as they needed one (M= 4.7, SD=0.59) and the amount of time waited between their scheduled appointment and seeing a provider (M=4.71, SD=0.62). Additionally, patients responded that they had decreased understanding the purpose of taking their medications (M=4.42, SD= 0.82). This indicates that the clinic can improve patient centered care by increasing the timeliness and ease of scheduling appointments as well as improving the wait time from scheduled appointment to seeing the provider. [redacted] should further investigate patient's understanding of their medication regimens and consider medication education interventions.

Of the 72 survey respondents, 28 of them reported one or more visits to the ER within the last three months. The majority of patients who had an ER visit within the last three months reported it was because they did not have a usual place where they receive care (36%) or because they usually receive all their care in the ER (21%). The clinic can further decrease ER utilization by educating patients that they can use [redacted] as a medical home. The clinic can evolve to primarily serve as preventative care rather than acute/illness based services which could be an upstream solution to health disparities in the uninsured population. Additionally, the percentage of survey respondents who did visit the ER decreased over the project period from 69% in October to 34% in January.

The ongoing sustainment of this project has the potential to increase retention, bring new business to the clinic, and reduce emergency room utilization by the community's uninsured population. The cost of a self/pay uninsured visit to the ER is approximately 460 dollars. The ongoing cost of the project is limited to materials needed to conduct paper surveys, estimated at 41 dollars a month. If even one visit to the ER is prevented as a result of this project it would result cost savings for the patient and uncompensated costs at local acute care hospitals. The clinic can use this information to secure public or private funding and donations to support the ongoing costs of this project and the work at the clinic.