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Implementation of a Patient Satisfaction Survey: A Pilot Project

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requirements for the degree of

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Abstract

Background: Patients who report higher satisfaction scores have better healthcare outcomes and lower financial burden in comparison to those who report lower satisfaction scores. Those less satisfied with their medical care tend to have poorer physical and mental health, which can impact daily life. For students in particular, health status impacts academic performance. Patient satisfaction surveys are a standard tool used to determine areas needing improvement within a healthcare delivery system.

Objective: The purpose of this project was to implement a patient satisfaction survey at a student health center on a university campus.

Design: The project was a two-month pilot study with aims to: 1) analyze response data and response rate, 2) assess survey feasibility, and 3) evaluate staff perception of patient satisfaction surveys. The patient satisfaction survey was used to achieve the first two aims. To achieve the third aim, a staff survey was distributed before and after patient survey implementation to assess changes in perception of patient satisfaction surveys.

Setting: The project was implemented at a student health center at a small private university's student health center. The clinic employs five nurse practitioners, two medical assistants and three office staff members. On average, the clinic services about 1700 students per year.

Participants: All students seen at least once by a clinic provider between September 20, 2021 and March 26, 2022 were recruited for the patient satisfaction survey. All staff members were recruited for the staff surveys.

Interventions: The patient satisfaction survey was based on the CG-CAHPS survey which measures satisfaction in five core areas: access to care, provider communication, care

coordination, provider rating, and office staff. Patients were recruited via email, and data were collected through Qualtrics.

Results: The patient survey response rate was 4.9%. The composite satisfaction scores for each measure were as follows: access to care (50%), provider communication (80%), care coordination (75%), provider rating (8.8/10), medical assistants (82.5%), front desk staff (54%). The staff survey response rate was 67%. Though a t-test and p value of each question implies no significant change in staff perception, the raw scores of most questions increased by 0.7 points, indicating a slightly more positive view of patient satisfaction surveys post-implementation.

Conclusions: Establishing a patient satisfaction survey for a student health center is feasible and staff perception is generally positive.

Keywords: patient satisfaction survey, university student health center, staff perceptions

Introduction

Prior to describing the project, relevant background is provided on impact of patient satisfaction on an individuals' health, college student health, patient satisfaction surveys and the challenges of utilizing them.

Background and Significance

The Triple Aim, introduced in 2007 by the Institute for Healthcare Improvement (IHI), is an initiative to improve the United States healthcare system in three main areas: improving the patient experience of care, improving population health, and reducing healthcare costs (Berwick et al., 2008). Many studies have shown that by achieving the first aim, providers and organizations in turn improve their patients' health status, outcomes, and reduce healthcare costs, thus achieving all three Aims (Holt, 2019; Doyle et al., 2013; Anhang Price et al., 2014). For example, patients who report higher satisfaction scores tend to have lower mortality and infection rates, higher acute myocardial infarction survival rates, as well as better controlled diabetes, hypertension, and ulcer disease (Anhang Price et al., 2014; Doyle et al., 2013). Furthermore, satisfied patients have fewer hospitalizations and readmissions. They also tend to utilize emergency services less often and use their primary care resources more effectively (Doyle et al., 2013). According to one meta-analysis, patients who are less satisfied have a 19% higher risk of treatment nonadherence, which may help explain the discrepancy between health outcomes of satisfied vs unsatisfied patients (Anhang Price et al., 2014). Overall, whether in college or in the community, patients who are less satisfied utilize emergency services more often, are less adherent their treatment plan and have poorer health outcomes (Holt, 2019; Doyle et al., 2013; Anhang Price et al., 2014). Students often depend on the health services provided by

their institutions, which is why it is important that college health centers provide high quality, satisfactory care (Citoli et al., 2018).

College is a time of increased independence, self-discovery, growth, and most importantly, continued education. During this transitionary period from dependent individuals to independent adults, college students also face unique health challenges such as learning to manage their physical and mental health as well as addressing prominent campus public health issues such as high-risk alcohol, drug and sexual activity (Citoli et al., 2018). Some common health issues college students face are anxiety and depression, respiratory and gastrointestinal illnesses, sexual health issues, sexual assault and relationship violence, and sleep disorders (Georgetown, n.d.). Health issues can impact academic performance. Students with poor physical and mental health have increased difficulty learning, lower rates of motivation and engagement, and are less likely to graduate (Citoli et al., 2018).

To lower healthcare costs and improve health outcomes for patients, changes must be made towards greater patient satisfaction (Holt, 2019). The IHI recommends using standardized questions on patient satisfaction surveys to determine areas for improvement. Patient satisfaction surveys are a common method used to obtain useful information about ways to adapt delivery of care to positively impact patients' experience of healthcare. Without this tool, healthcare providers and organizations would have little to no information by which to understand and improve the care they deliver.

There are many different types of patient satisfaction surveys available, but the Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys are the most widely studied, validated surveys available. CAHPS surveys are available for settings ranging from inpatient hospital care to enrollee experience with health insurance plans. The CAHPS Clinician & Group

survey (CG-CAHPS) is the most widely used survey to explore patient experiences with providers and staff of primary care and outpatient specialty clinics. A 2019 systematic review of 20 research studies found that CG-CAHPS surveys can truly help providers, healthcare organizations and insurance companies change ways of practice and improve patient outcomes (Holt, 2019). For example, one study found that use of the CG-CAHPS survey helped unhoused patients with mental health diagnoses to increase engagement in their own medical care (Behl-Chadha et al., 2017). Another study found that the survey helped make changes to better provide linguistically competent care for their patients (O'Brien & Shea., 2009).

While studies show patient satisfaction surveys are beneficial in a variety of ways, many providers and organizations have reservations about implementation and validity of results. First, not all patient satisfaction surveys are valid, and many may be biased. Additionally, without obtaining an adequate response rate, results may not be representative of the patient population. Interpretation of results obtained can also be a tricky and time-consuming process (Shirley & Sanders, 2016). Furthermore, the data collected may be affected by "response decay", meaning that the more time that is between the event of interest and the time when the response is collected, the value decreases because patients may not fully recall their care experience (Wilson et al., 2016). Finally, there are primary risk factors for lower satisfaction of care ratings that providers and organizations cannot change. These include patients of younger age, minority ethnicity, low socioeconomic status, less education, having a psychiatric diagnosis and having more than two chronic problems (Thiedke, 2007).

Problem Statement

A student health center at a small private Jesuit university in a large west coast metropolitan city does not currently utilize a patient satisfaction survey or any other tool to

obtain feedback from patients. In the past they used a non-validated patient satisfaction survey, but several of the questions became out-of-date after staffing changes and they have been unable to reimplement another survey. This gap in practice prevents the clinic from providing the best care possible to patients. With information about the level of satisfaction in the clinic's delivery of care, providers and stakeholders would have the necessary information to implement change and improve patients' health status, lower healthcare costs, and ultimately help graduate more competent, confident, and healthy adults.

Project Purpose

The purpose of this Doctor of Nursing practice project was to implement a validated patient satisfaction survey at small private Jesuit university's student health center. The project aims are: 1) to analyze response data and response rate, 2) to assess survey feasibility, and 3) to evaluate staff perception of patient satisfaction surveys.

Methods

Design

The purpose of this evidence-based quality improvement pilot project was to implement a patient satisfaction survey at the student health center for a two-month period. Data from the patient satisfaction survey was used to achieve the first two aims. To achieve the third aim, a staff survey was distributed before and after patient survey implementation to assess changes in perception of patient satisfaction surveys. Both surveys were created through Qualtrics, an online survey software platform. The patient survey was distributed via email through Medicat, a computer software system able to send emails to recipients on a timed schedule. The staff survey was distributed via direct email message and Zoom Chat feature. The Seattle University Institutional Review Board identified the project as "Not Human Participation Research".

Setting

The project was implemented at small private Jesuit university's student health center. The university resides within a large, urban city in the United States. The clinic is located on the university campus and provides year-round physical and mental healthcare to both undergraduate and graduate students. In the last three years, the clinic has serviced an average of 1485 undergraduate and 232 graduate students per academic year. The fewest number of students were seen last year, in the 2020-2021 school year due to the COVID-19 pandemic. There are nine staff members in total for the 2021-2022 school year: five nurse practitioners, two medical assistants and two office staff members.

Participants and Recruitment

All students seen at least once by a clinic provider during fall and winter quarter (September 20, 2021 – March 26, 2022) were invited to participate in the survey. All students seen between September 20, 2021, and January 26, 2022, were sent a one-time email on January 27, 2022, inviting them to participate in the patient satisfaction survey. Students seen between January 27 – March 26, 2022 were sent a recruitment email with a link to the survey seven days after their appointment. Each patient was sent a maximum of two recruitment emails, regardless of the number of visits they had at the clinic. Flyers with QR codes to the survey were posted in the clinic waiting area, hallway, and two main exam rooms. Undergraduate and graduate students of all genders, races, ethnicities, socioeconomic level, academic level, or with any number of health problems were included. Students who were seen by a clinic provider prior to fall quarter 2021 were excluded.

All staff members employed at the clinic were invited to participate in both the pre-implementation and post-implementation surveys. Staff were recruited via Zoom Chat to

participate in the pre-implementation survey on January 18, 2022, during a staff meeting on Zoom. Staff were recruited via email to participate in the post-implementation survey on April 5, 2022, after being presented with the results of the patient satisfaction survey during an in-person staff meeting. Individuals not employed at the clinic were excluded.

Data Collection

All data were collected using Qualtrics, an online survey software. The patient satisfaction survey was open for completion from January 27, 2022, until March 31, 2022. The pre-implementation staff survey was open from January 18, 2022, until February 2, 2022. The post-implementation staff survey was open from April 5, 2022, until April 12, 2022.

Surveys

The patient satisfaction survey (Appendix A) is based on the Consumer Assessment of Healthcare Providers and Systems for Clinicians and Groups (CG-CAHPS) survey. This survey is the most widely studied validated survey used for providers and staff in primary care and outpatient specialty clinics to explore patient experiences and improve patient outcomes (Holt, 2019). The survey includes questions about basic information of the provider seen, participant demographics, and measures patient experience within five core domains: overall provider rating, provider communication, access to care, care coordination, and office staff. Patient demographics include age, gender, race, and year in school. Some questions were slightly modified to better reflect the patient population at the university, the format was adjusted to minimize repetitive phrases, and several questions were added based on the needs of the clinic. The questions added to the CG-CAHPS survey assess patient expectations for timely appointments and the impact of the clinic on participants' lives. There were 30 questions in total,

12 questions on a five-point Likert scale, 4 questions on a four-point Likert scale, and 14 closed-ended questions.

The staff survey (Appendix B) was created using inspiration from a questionnaire used in a French study investigating the "perception and use of the results of patient satisfaction surveys" (Boyer et al., 2006). The questions focus on staff perception of survey feasibility, accuracy, reliability, and utility. There were 12 questions in total, 8 questions on a five-point Likert scale, 4 open-ended questions and one close-ended question.

Data Analysis

The patient satisfaction survey data were analyzed using Qualtrics analysis software. Key results of interest were response rate, percentage of individuals who reported "always" for each question, provider rating, demographic statistics, number of participants who report that access to the clinic allows them to stay enrolled, impact of the clinic on participants' lives, and participant expectations for timely care. The data were displayed to staff using bar charts to better visualize the results. The survey response data provides information about which areas of the clinic patients believe to be high quality and which areas may require improvements. The response rate gives an idea about quality of survey distribution, how feasible the survey is for the future and how utilizable the results are for potential changes to be made at the clinic.

The staff survey results were analyzed using both quantitative and qualitative analysis. The Likert scale questions were coded using the following system: agree = 5, somewhat agree = 4, neither agree nor disagree = 3, somewhat disagree = 2, strongly disagree = 1. Data were re-entered into Excel and a paired t-test was conducted to examine the difference between the pre-implementation and post-implementation surveys. Qualitative thematic analysis was used to find common themes among the open-ended questions of both surveys and assessed for differences.

The analysis gives information about staff perceptions of patient satisfaction surveys and if there is a change in perception after results of the patient satisfaction surveys were revealed.

Results

Patient Satisfaction Survey Results

Response Rate

One recruitment email was sent to 279 individual patients seen between September 20, 2021, and January 25, 2022. An additional 249 emails were sent to patients seen between January 26, 2022, and March 26, 2022. In total, 528 recruitment emails were sent. Individuals who were seen multiple times during the time frame were sent a maximum of two emails. Due to the limitations of MediCat, the computer software used to email the surveys, it was not possible to identify the total number of unique individuals that were recruited via email.

Thirty-six responses were received, of which 20 were 100% complete, 6 were partially complete, and 10 were 0% complete. Thirty-four of the submitted surveys were opened via email link. Two submitted surveys were opened via QR code. The meaningful response rate 4.9% (26/528).

Basic information

As shown in Table 1, the demographic characteristics of the participants were mostly female (75%), younger than or equal to 25 years of age (85%), Caucasian race (59%), and undergraduate students (70%).

Table 1

Patient Demographics

Demographic	Classification	Percentage	*n*
Gender	Male	20	4

	Female	75	15
	Nonbinary	5	1
	Transgender	0	0
	Prefer not to say	0	0
Age	Under 20	40	8
	21-25	45	9
	26-30	15	3
	31-35	0	0
	36-40	0	0
	Over 40	0	0
Race	White	59	13
	Asian	31.8	7
	Other	9	2
	Native Hawaiian or Pacific Islander	0	0
	American Indian or Alaska Native	0	0
	Black or African American	0	0
Academic Status	Freshman	15	3
	Sophomore	25	5
	Junior	20	4
	Senior	10	2
	Transfer student	0	0
	Graduate student	30	6
	Law student	0	0

Patient health self-rating

More than half (53%) of participants rated their overall health “excellent” or “very good”. In contrast, only 10% of participants rated their mental or emotional health “excellent” or “very good”.

Details about provider seen

As shown in Table 2, half of the participants indicated they were seen by Provider C. Provider B was the next most seen, then Provider A and finally Provider D. Half of the participants had seen the provider one time. Most (92%) of participants had been seeing the provider for less than 6 months. More than half (53%) of participants reported this provider was not their usual provider.

Table 2

Information about the provider seen

Question	Classification	Percentage	*n*
Provider Seen	A	15.4	4
	B	23	6
	C	50	13
	D	11.5	3
	E	0	0
Number of visits with provider	One	50	10
	Two	20	4
	Three	5	1
	Four	10	2
	Five to Nine	15	3
	Ten or more	0	0
Length of time working with provider	< 6 months	92	24
	6 months - 1 year	8	2
	1 – 3 years	0	0
	3 – 5 years	0	0
	5+ years	0	0
Is this your usual provider?	No	53.8	14
	Yes	46.2	12

Survey Measures

Access to Care: Patient Expectations vs Reality. The composite score for access to care was 50%. As shown in Appendix C, most participants (85%) expect to be able to make an appointment for an urgent concern in less than 24 hours or within 24-48 hours. Only 33% of participants reported this expectation was “always” met. Half of the participants expect to be able to make an appointment for routine care within 48-72 hours or within one week. Over half (54%) of participants “always” met this expectation. When participants contacted the office during regular business hours, 63% “always” received an answer within 72 hours.

Provider Communication. The composite score for provider's communication was 80%. As shown in Appendix C, participants most often (85%) feel carefully listened to and shown respect for what they had to say. 80% of participants felt the provider "always" explained things in an easy-to-understand manner, and 70% felt the amount of time spent with them was adequate.

Care Coordination. The composite score for provider's use of information was 75%. The most participants (81%) indicated that they "always" received follow up on any blood test, x-ray or other test results. Fewer participants indicated that their prescription medications were "always" reviewed, or the provider "always" knew their medical history, 71% and 72%, respectively.

Provider Rating. The average rating for the provider was 8.8 out of 10. The minimum score was 6. The maximum score was 10. Twenty responses were recorded for this question.

Office Staff. The composite score for "always" helpful, courteous, and respectful front desk staff was 54%. In contrast, the composite score for "always" helpful, courteous, and respectful medical assistants, was 82.5%.

Impact of Access to Clinic

Seven participants (35%) indicated that they were seen at the clinic due to a physical or mental health condition that would interfere with their ability to stay enrolled. Of those seven, six participants indicated that access to the clinic contributed to their ability to stay enrolled.

Without access to the health center, participants' lives would be impacted by delay in receiving treatment or worsening of condition (n = 15), higher financial cost (n = 15), missed classes (n = 9), difficulty in accessing transportation to another location (n = 8), possible loss of quarter (n = 2).

Staff Survey Results

Response Rate

All nine staff members employed at the clinic were recruited for both pre- and post-implementation surveys. Six completed responses were received for each set of surveys, making the response rate, 66.7%.

Likert-scale questions

The staff surveys contained eight Likert-scale questions that were scored using the following system: strongly agree = 5, somewhat agree = 4, neither agree nor disagree = 3, somewhat disagree = 2, strongly disagree = 1. Table 3 displays the means and p-value found after conducting a paired t-test. Figure 1 displays the means of each question from both pre- and post-implementation.

The mean scores for most questions increased in the post-implementation survey. On average, each question's score increased by 0.7 points, or three quarters of a Likert scale degree. The largest positive change in perception (+1.16) was the opinion that "patient satisfaction surveys are useful", followed by the information gathered by the surveys are "accurate and reliable" (+0.99). There was no average change (+0) in staff opinion about interest in the clinic results vs individual results. The second least positive change in staff perception (+0.33) was the opinion that "patients can judge quality of care".

Though the average raw scores for most questions increased, the p-values obtained from the t-tests for each question shows that statistically, there was no significant difference in the means of any question.

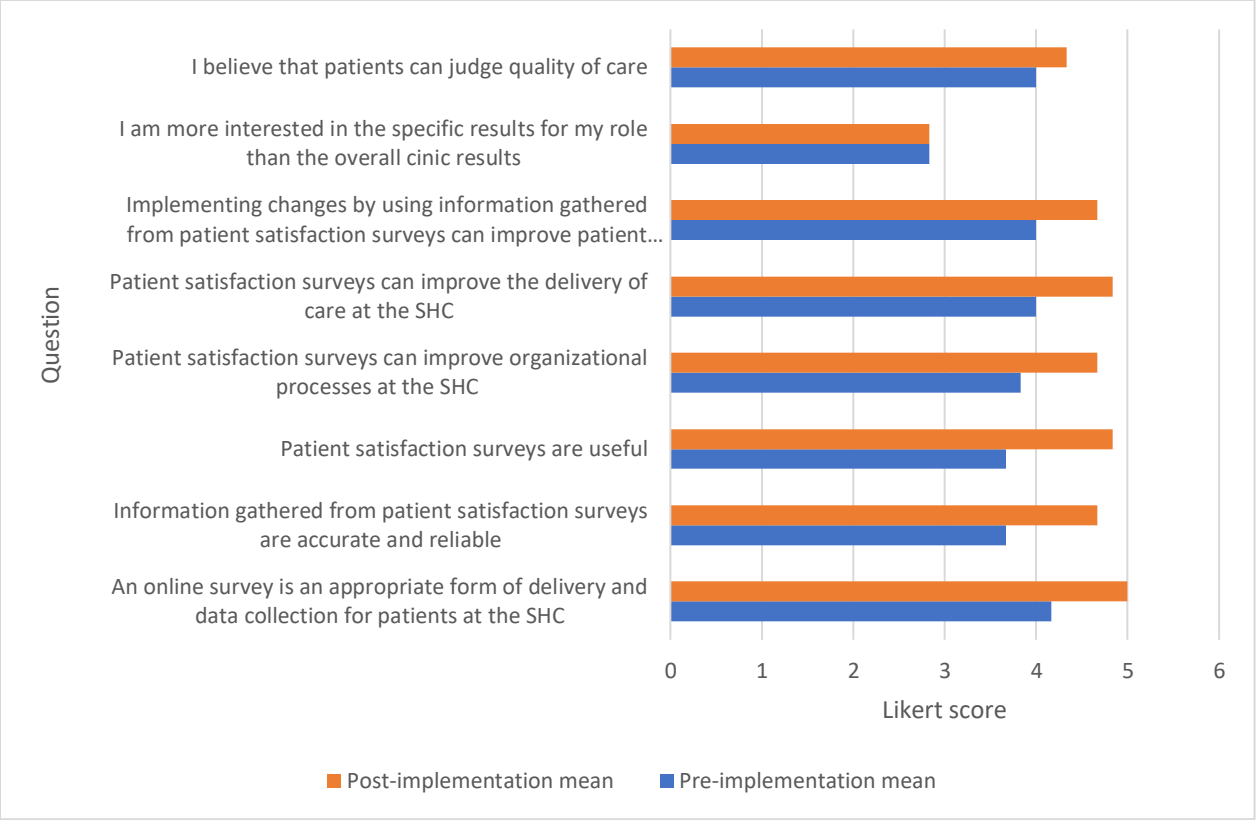
Table 3

Staff survey paired t-test

Question	Pre-implementation mean	Post-implementation mean	Difference between means	p value
1. An online survey is an appropriate form of delivery and data collection for patients at the SHC	4.17	5	+0.83	0.26
2. Information gathered from patient satisfaction surveys are accurate and reliable	3.67	4.66	+0.99	0.11
3. Patient satisfaction surveys are useful	3.67	4.83	+1.16	0.13
4. Patient satisfaction surveys can improve organizational processes at the SHC	3.83	4.66	+0.83	0.29
5. Patient satisfaction surveys can improve the delivery of care at the SHC	4	4.83	+0.83	0.26
6. Implementing changes by using information gathered from patient satisfaction surveys can improve patient outcomes	4	4.66	+0.66	0.39
7. I believe that patients can judge quality of care	4	4.33	+0.33	0.66
8. I am more interested in the specific results for my role than the overall clinic results	2.83	2.83	+0	1

Figure 1

Mean Likert-scores before and after patient satisfaction survey implementation



Open ended questions

The staff survey contained three open ended questions. As shown in Appendix D, thematic analysis was used to identify common themes among the comments from staff participants, both before and after implementation of the patient satisfaction survey.

Positive Judgements on Use of Patient Satisfaction Surveys. Themes identified in both pre- and post-implementation surveys include “improvement”, “useful feedback”, “helpful”. The quantity of these comments was about equal, but there were slightly less comments about “useful feedback” in the post-implementation survey. Other comments in the pre-implementation survey include: information that patients may be “reluctant to provide otherwise”, patient perception, and “good tool”. One comment on the post-implementation survey remarked on the ability “to understand what student expectations are”.

Negative Judgements on Use of Patient Satisfaction Surveys. Common themes identified in both pre- and post-implementation surveys include concern about low response rate and responses typically from very positive or very negative experiences. The quantity of these comments was about equal, but there was slightly more concern about the low response rate in the post-implementation survey. A unique comment in the pre-implementation survey stated, "perception versus reality". One comment on the post-implementation survey remarked on survey questions that do not address the patient's "culture/socioeconomic factors that influence health seeking behaviors and attitude toward healthcare services".

Perceived patient priority concerns for experience of care. Common themes identified in both pre- and post-implementation surveys include "feeling heard and understood", "timely care", and "efficacy of care plan". The quantity of these comments was about equal, but there were slightly more comments about "feeling heard and understood" and slightly less comments about "timely care" and "efficacy of care plan" in the post-implementation survey in comparison to pre-implementation survey. One theme identified only in the pre-implementation survey was "trust and confidentiality".

Closed ended question

There was no significant difference in the method staff preferred to be informed of the patient satisfaction survey results. In the pre-implementation survey, 4 staff members preferred meetings and 2 staff members preferred email or memo. In the post-implementation survey, 3 staff members preferred meetings and 3 staff members preferred email or memo. In neither survey did staff prefer a flyer or informal conversation with colleagues.

Discussion

Summary

The purpose of this project was to implement a patient satisfaction survey at a small private university's student health center. The project aimed to analyze survey responses, assess feasibility, and evaluate staff perceptions on the use of patient satisfaction surveys.

The patient satisfaction survey, based upon the validated CG-CAHPS assessment, measured patient satisfaction within five areas: access to care, provider communication, care coordination, overall provider rating, and office staff. Most patients were happy with their provider overall, giving a generously positive average rating of 8.8 out of 10. Most patients were also satisfied with the provider's communication (80%), care coordination (75%) and interaction with medical assistants (85%). Patients were less satisfied with the front desk staff and access to care. Only 54% of patients reported that the front desk staff were always helpful and respectful. Furthermore, only 33% of patients were satisfied with access for urgent appointments, and 54% of patients satisfied with access for routine appointments. It is possible that the low front desk staff ratings are tied with the low satisfaction for timely care. The front desk staff have many responsibilities, scheduling patient appointments being one of them, and the question used in the survey may be too broad.

Other parts of the survey results that stand out include the response rate, distribution of provider seen, and the patients' health self-rating. A 4.9% response rate is quite low, but this number is not entirely accurate. Due to MediCat, the email distribution software, the number of unique individuals who received a recruitment email is unknown. The total number of emails sent, 528, includes an unknown number of emails that were sent to the same individual. Thus, the response rate is likely higher than 4.9%, but the extent is unknown. Furthermore, the distribution of providers seen was uneven, with Provider C indicated by 50% of patients. Finally, very few

(10%) of participants believe they had “excellent” or “very good” mental health, while moderately more (54%) believe their overall health to be “excellent” or “very good”.

Though not part of the CG-CAHPS, stakeholders at the clinic were interested in how access to the clinic impacts patients. Of those participants who indicated they were seen for an issue that may impact enrollment, 85% stated that access to the clinic allowed them to remain a student. The clinic has also played a role in reducing financial burden and preventing worsening condition or delay in treatment for 75% of participants. Finally, the clinic has allowed for more class attendance and lack of need for transportation for 45% and 40% of participants, respectively.

It was difficult to assess if the project’s participants were a representative sample of the entire patient population of the clinic. Demographic data were able to be gathered from all patients seen during the project’s timeframe, however, due to the limitations of the computer software used, the data includes information from every visit rather than each unique patient. Though limited, this information can provide a general idea about how the project’s participants compare to the clinic’s patient population. The demographics of the project’s participants were generally representative of the patient population at the clinic. As seen in Table 4, the gender and age of the project’s participants were almost identical to the clinic’s patient population. The ratio of undergraduates was higher in for the project than the patient population. Data on race could not collected.

Table 4

Demographics: Patient Population vs Project’s Participants

Demographic	**Classification**	**Patient Population Percentage**	**Project’s Participants Percentage**
Gender	Male	26	20

	Female	74	75
	Nonbinary	n/a	5
	Transgender	n/a	0
	Prefer not to say	n/a	0
Age	Under 20	49	40
	21-25	37	45
	26-30	7.6	15
	31-35	4	0
	36-40	10	0
	Over 40	10	0
Race	White	n/a	59
	Asian	n/a	31.8
	Other	n/a	9
	Native Hawaiian or Pacific Islander	n/a	0
	American Indian or Alaska Native	n/a	0
	Black or African American	n/a	0
Academic Status	Freshman	18	15
	Sophomore	16	25
	Junior	20	20
	Senior	31	10
	Transfer student	n/a	0
	Graduate student	10	30
	Law student	4	0

Staff perception of patient satisfaction surveys, evaluated by seven Likert-scale questions, generally became more positive after the implementation of this project. The average score on the pre-implementation survey was 3.9 out of 5, compared to 4.7 out of 5 in the post-implementation survey. A t-test, however, reveals this difference to be non-significant. Overall, positive and negative judgements on the use of patient satisfaction surveys did not change after the implementation of the project. Staff continue to express that the survey can provide useful feedback to help improve the clinic's healthcare delivery but remain concerned with inadequate response rates and responses more often being from very positive or very negative patient experiences.

Interpretation

The project's aims, to analyze survey responses, assess feasibility, and evaluate staff perception on the use of patient satisfaction surveys, were achieved. Survey responses detailed four core areas of high satisfaction (provider rating, provider communication, care coordination, and medical assistants) and two core areas of lower satisfaction (appointment scheduling and front desk staff).

The Agency for Healthcare Research and Quality, the organization that created the CG-CAHPS survey publishes data collected from thousands of medical practices each year. Types of medical practices include primary care clinics and outpatient specialty clinics. Table 5 compares this project's results to the 2019 CG-CAHPS Survey Data base. Benchmarking is limited due to differences in the types of practices included in the aggregate data, as well as differences in wording or formatting of several questions, but general observations can be made. The project's site results fare about the same for provider rating and care coordination, but rate lower in the areas of provider communication and access to care. Office staff results cannot be compared because the CG-CAHPS assesses "clerks and receptionists" together, and this project's survey asked about medical assistants and front desk staff.

Table 5

Results from Project Site vs 2019 CG-CAHPS Survey Data Base

Core Measure	Project Site	2019 CG-CAHPS Survey Database
Access to Care	50% reported "always" receiving timely appointments, care and information	65% of patients reported "always" receiving timely appointments, care and information
Provider Communication	80% of patients reported providers "always" communicated clearly and listened carefully	85% of patients reported providers "always" communicated clearly and listened carefully
Care Coordination	75% of patients reported providers "always" helped to coordinate their care	74% of patients reported providers "always" helped to coordinate their care

Office Staff	85% of patients reported medical assistants were “always” helpful and respectful 53% of patients reported front desk staff were “always” helpful and respectful	79% of patients reported office staff were “always” helpful and respectful
Provider rating	8.8/10 average rating	79% of patients rated the provider 9 or 10

Furthermore, the patient survey revealed that more mental health services would highly benefit the population, as only 10% of participants rated their mental health to be “excellent” or “very good”. Coincidentally, the survey closed two days prior to the launch of a 24/7 medical and mental telehealth service for students. The new service allows for on-demand and scheduled access to medical and mental health professionals, in addition to lifestyle health coaching, psychiatry services, and group meditation and yoga sessions. With access to this additional service, patients self-rating of mental health and overall health may increase.

Staff perception of patient satisfaction surveys started as generally positive and became more positive after the implementation of the survey. One staff member stated “This is great! Thanks for taking this on”. Another asked for data from patients that were specific to their visits “identify areas for improvement”. With trust and buy-in from the staff, the results of the survey may have more impact in changing staff behavior or clinic protocol.

Limitations

Due to low response rate and uneven distribution of providers seen, the results obtained from the patient satisfaction survey may not be generalizable for all providers or the entire clinic. Furthermore, this project was implemented as a pilot project for a short duration. The timeframe for survey distribution was only eight weeks, potentially impacting the number and quality of responses. Another limitation is a lack of funding for patient participation. A financial incentive

may motivate more patients to complete the survey but may in turn bias the results. Finally, as one staff member mentioned, the survey also does not assess socioeconomic or cultural factors that influence patients' health seeking behaviors and attitude toward healthcare services.

Sustainability and Recommendations

To sustain the use of a patient satisfaction survey in this clinic, more patients should be recruited to obtain better generalizable data. In addition, a staff member must take the lead on analyzing results, presenting them to the clinic on a regular basis, and enacting practice change based on the results.

For the future, recommendations include a financial incentive for patient participants to increase response rate, a longer duration of survey distribution, as well as including questions involving socioeconomic status or cultural background and more specific questions about the front desk staff to differentiate between satisfaction with scheduling appointments and other staff responsibilities. In distributing survey results, emailing a report to all staff, and discussing highlights and lowlights during a meeting may be more effective in relaying important messages than a PowerPoint with raw data represented by bar graphs.

At this time, specific recommendations for ways in which the clinic may improve patient satisfaction include more often scheduling patients with urgent concerns in less than 48 hours. For patients scheduling routine appointments, the problem may lie in expectations. Half of the patient participants indicated that they expect to make an appointment for routine care in less than 48 hours. Educating patients about scheduling expectations may relieve some of the dissatisfaction. Finally, meeting with the front desk staff to discuss patient expectations and behavior may also increase patient satisfaction.

Conclusions

Students often rely on health centers on campus to provide high quality, satisfactory care. Patients who are not satisfied with their medical care tend to have worse health outcomes and are less likely to graduate in comparison to their more satisfied counterparts. Patient satisfaction surveys are the most common method to determine areas for healthcare delivery improvement, despite its challenges obtaining an adequate response rate and difficulty interpreting results. This DNP project aimed to implement and analyze results of a patient satisfaction survey at a university's student health center, in addition to assessing feasibility and evaluating staff perceptions on the use of surveys. The results of the project indicate areas of patient delivery with both high and low patient satisfaction, that establishing a patient satisfaction survey is feasible and staff perception of surveys is mostly positive. For use of a patient satisfaction survey to be sustainable, more responses should be obtained, questions involving socioeconomic and cultural background included, and a staff member must lead its distribution, analysis and implementation of change efforts. By increasing patient satisfaction, the clinic will be working towards improving healthcare outcomes, reducing financial burden, and allowing students to thrive in their education.

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Appendix A

Patient Satisfaction Survey

Informed Consent

You are being invited to participate in a study titled "Implementation of a Patient Satisfaction Survey: A Pilot Study" because you have been seen by a provider at the Student Health Center.

Background Information

The aims of the project are to evaluate feasibility of survey implementation as well as analyze survey response data, response rate, and demographics of survey participants.

Participation is optional. If you agree to take part in this study, you will be asked to complete the survey on the next page. The survey will ask about your personal background and experience of the care provided by the Student Health Center. It will take approximately 10-15 minutes to complete.

There are no known risks associated with this study. However, it is possible that some questions may make you upset or feel uncomfortable and you may choose not to answer them. You are free to skip any question or discontinue your participation at any time. Although there is no personal benefit from taking part in this project, your responses may help us understand more about the quality of care delivered at the Student Health Center.

Contacts & Questions

The Institutional Review Board (IRB) at Seattle University has determined that this study is exempt from IRB review in accordance with federal regulation criteria. If you have questions about the project, please feel free to contact me using the information provided below.

Sincerely,
Amy Brenner, RN, DNP Family Nurse Practitioner student
Seattle University College of Nursing
Email: brenneramy@seattleu.edu

By clicking the arrow, you consent to participate in this project.

End of Block: Informed Consent

Start of Block: Initial questions

Please indicate the nurse practitioner who provided care for you

- ○ Provider A
- ○ Provider B
- ○ Provider C
- ○ Provider D
- ○ Provider E

The questions in this survey will refer to the provider you named as "this provider". As you answer these questions, please think of the in-person, phone or video visit(s) you had with that person.

Is this the provider you usually see if you need a check-up, want advice about a health problem or get sick or hurt?

- ○ Yes
- ○ No

How long have you been going to this provider?

- ○ Less than 6 months
- ○ At least 6 months but less than 1 year
- ○ At least 1 year but less than 3 years
- ○ At least 3 years but less than 5 years
- ○ 5 years or more

How often did you get an appointment as soon as you needed for

	Always	Usually	Sometimes	Never	Not applicable
Urgent care, injuries or illnesses	○	○	○	○	○
A check-up or routine care	○	○	○	○	○

In your experience,

	Always	Usually	Sometimes	Never	Not Applicable
When you contacted the office during regular office hours, how often did you get an answer to you medical question within 72 hours?	○	○	○	○	○
When this provider ordered a blood test, x-ray, or other test for you, how often did someone from the clinic follow up with you to give you those results?	○	○	○	○	○
How often did you and someone from the clinic talk about all the prescription medications you were taking?	○	○	○	○	○

How quickly would you expect to be able to make an appointment for

	< 24 hours	24-48 hours	48-72 hours	within 1 week
Urgent concerns	○	○	○	○
Routine care	○	○	○	○

How often did this provider

	Always	Usually	Sometimes	Never	Not applicable
Explain things in a way that was easy to understand?	○	○	○	○	○
Seem to know the important information about your medical history?	○	○	○	○	○
Carefully listen to you?	○	○	○	○	○
Show respect for what you had to say?	○	○	○	○	○
Spend enough time with you?	○	○	○	○	○

How many times have you visted this provider to get care for yourself?

○ 1 time

○ 2

○ 3

○ 4

○ 5 to 9

○ 10 or more times

Using any number from 0 to 10, where 0 is the worst provider possible and 10 is the best provider possible, what number would you use to rate this provider?

	0 1 2 3 4 5 6 7 8 9 10
Click to write Choice	

How often was the front desk staff...

	Always	Usually	Sometimes	Never
As helpful as you thought they should be?	○	○	○	○
Treat you with courtesy and respect?	○	○	○	○

How often was the medical assistant....

	Always	Usually	Sometimes	Never
As helpful as you thought they should be?	○	○	○	○
Treat you with courtesy and respect?	○	○	○	○

Were you seen at the Student Health Center for a physical or mental health concern that would interfere with you ability to stay at Seattle University?

○ Yes

○ No

If YES, do you feel the services provided by the Student Health Center contributed to your ability to stay enrolled at Seattle University?

- ○ Yes
- ○ Maybe
- ○ No
- ○ Not applicable

If you did not have access to the Student Health Center and had to go to an outside practice/facility, how would that impact your life? Please check all that apply.

- ☐ Missed more class
- ☐ Higher financial cost
- ☐ Possible loss of quarter/semester
- ☐ Difficulty in accessing transportation to another location
- ☐ Delay in receiving treatment, or worsening of condition
- ☐ Other
- ☐ None of the above

In general, how would you rate...

	Excellent	Very good	Good	Fair	Poor
Your overall health?	○	○	○	○	○
Your overall mental or emotional health?	○	○	○	○	○

What is your age?

- ○ Under 20
- ○ 21-25
- ○ 26-30
- ○ 31-35
- ○ 36-40
- ○ Over 40

What is your gender?

- ○ Male
- ○ Female
- ○ Non-binary
- ○ Transgender
- ○ Prefer not to say

What is your race? Mark one or more.

- [ ] White
- [ ] Black or African American
- [ ] American Indian or Alaska Native
- [ ] Asian
- [ ] Native Hawaiian or Pacific Islander
- [ ] Other

What is your academic status?

- ○ Freshman
- ○ Sophomore
- ○ Junior
- ○ Senior
- ○ Transfer student
- ○ Graduate student
- ○ Law student

Appendix B

Staff Survey

Informed Consent

You are being invited to participate in a study titled "Implementation of a Patient Satisfaction Survey: A Pilot Study" because you are a staff member at the Seattle University Student Health Center.

Background Information

The aims of the project are to evaluate feasibility of survey implementation as well as analyze survey response data, response rate, and demographics of survey participants. Participation is optional. If you agree to take part in this study, you will be asked to complete the survey on the next page. The survey will ask about your personal beliefs on the use of patient satisfaction surveys. It will take approximately 5-10 minutes to complete. There are no known risks associated with this study. However, it is possible that some questions may make you upset or feel uncomfortable and you may choose not to answer them. You are free to skip any question or discontinue your participation at any time. Although there is no personal benefit from taking part in this project, your responses may help us understand more about the quality of care delivered at the Student Health Center.

Contacts & Questions

The Institutional Review Board (IRB) at Seattle University has determined that this study is exempt from IRB review in accordance with federal regulation criteria. If you have questions about the project, please feel free to contact me using the information provided below.

Sincerely, Amy Brenner, RN, DNP Family Nurse Practitioner student
Seattle University College of Nursing
Email: brenneramy@seattleu.edu

By clicking the arrow, you consent to participate in this project.

End of Block: Block 2

Start of Block: Default Question Block

Mark to which extent you agree or disagree

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
An online survey is an appropriate form of delivery and data collection for patients at the SHC	○	○	○	○	○
Information gathered from patient satisfaction surveys are accurate and reliable	○	○	○	○	○
Patient satisfaction surveys are useful	○	○	○	○	○
Patient satisfaction surveys can improve organizational processes at the SHC	○	○	○	○	○
Patient satisfaction surveys can improve the delivery of care at the SHC	○	○	○	○	○
Implementing changes by using information gathered from patient satisfaction surveys can improve patient outcomes	○	○	○	○	○
I am more interested in the specific results for my role than the overall cinic results	○	○	○	○	○
I believe that patients can judge quality of care	○	○	○	○	○

Give one positive judgement on the use of patient satisfaction surveys

_____

Give one negative judgement on the use of patient satisfaction surveys

_____

What do you perceive are patients' priority concerns for experience of care?

_____

I would prefer to be informed of the results of patient satisfaction surveys by

- ○ Staff meetings
- ○ Email / memo
- ○ Flyer
- ○ Informal conversation with colleagues

Any additional comments?

_____

Appendix C

Results of Survey Measures

Measure	Question	Percentage	*n*
Getting timely appointments, care, and information	Patients who reported they "always" received an answer to a medical question within 72 hours when they contacted the office during regular business hours	63	12
	Patients who reported they "always" received an appointment as soon as they needed for urgent care, injuries, or illnesses	33	4
	Patients who reported they "always" received an appointment as soon as they needed for a check-up or routine care	54	7
Patient expectations for timely care	Patient who report**ed** they expect to be able to make an appointment for urgent concerns in "less than 24 hours" and "24-48 hours"	85	17
	Patients who report**e**d they expect to be able to make an appointment for routine care in "48/72 hours" and "within 1 week"	50	10

Measure	Question	Percentage	*n*
How well providers communicate with patients	Patients who reported their provider "always" explained things in a way that was easy to understand	80	16
	Patients who reported their provider "always" carefully listened	85	17

	Patients who reported their provider “always” showed respect for what they had to say	85	17
	Patients who reported their provider “always” spent enough time with them	70	14
Providers’ use of information to coordinate patient care	Patients who reported the clinic “always” followed up on blood test, x-ray, or other test results	81	9
	Patients who reported that someone from the clinic “always” discussed the prescription medications they were taking	71	10
	Patients who reported their provider “always” knew their medical history	72	13
Helpful, courteous, and respectful office staff	Patients who reported the front desk staff was “always” as helpful as they thought they should be	55	11
	Patients who reported the front desk staff had “always” treated them with courtesy and respect	53	10
	Patients who reported the medical assistant was “always” as helpful as they thought they should be	80	16
	Patients who reported the medical assistant had “always” treated them with courtesy and respect	85	17

Appendix D

Positive judgements on use of patient satisfaction surveys

Pre-implementation	Post implementation
How a patient feels a clinician listens to them and explains	Helpful to understand what student expectations are
Patients may provide feedback that they would be reluctant to provide otherwise	Useful data.
good tool to improve patient satisfaction and quality of care	Quality improvement
Helpful to have feedback that can improve the function of the clinic as well as my role as a nurse practitioner.	Helpful to have feedback on thoughts about clinic
Useful feedback.	Provides an opportunity to improve patient engagement and patient-provider relationships

Negative judgements on use of patient satisfaction surveys

Pre-implementation	Post implementation
Not exhaustive, not every user will respond.	Concern about response rate Not enough responses
disproportionately reflects very positive and very negative reviews	More likely to get responses from really positive or really negative experiences, fewer average experiences
Perception versus reality	
Not enough people complete them for the results to be generalizable	Difficult to interpret w low response rates.
Often tend to be filled out when people are either very satisfied or dissatisfied.	Survey questions that fail to address/understand the target populations culture/socioeconomic factors that influence health seeking behaviors and attitudes toward health care services.

Comments on perceived patient priority concerns for experience of care

Pre-implementation	Post implementation
Trust.	Feeling heard and time
	Feeling heard

getting appointment and care/treatment in a timely manner, confidentiality, compassionate care Feeling listened to and how quickly they can be seen Their perceived efficacy of care - do they feel their issues were addressed access to care, feeling listened to, no excessive wait times for being seen, effective treatment	Feeling listened to and understood Accurate diagnosis and treatment, listening skills of provider Same day access to acute care needs