Patient Satisfaction Survey at the Shade Tree Clinic:
A Tool for Quality Improvement Measures in a Student-Run Clinic

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Context

• Shade Tree Clinic is a free medical clinic run by Vanderbilt Medical Students.
• Medical students take on diverse roles as clinic coordinators, pharmacy technicians, social workers, and interpreters.
• Last year >400 patients were treated at The Shade Tree, 41% of >1400 visits were for chronic disease
• This project represents the first measure of patient satisfaction in this student-run clinic.

Objective

Create and implement a patient satisfaction survey to:

1. Evaluate the baseline levels of current patient satisfaction
2. Provide a tool to measure future quality improvement outcome measures

Methods

The following approach was taken in survey development:

1. Identification of Areas to Address:
• Physicians and medical students, including directors of Shade Tree clinic, identified specific concerns to target with the survey.
2. Drafting of Survey:
• Preliminary questions were written and adjusted to a fourth-grade reading level. Surveys were created in English and Spanish to address both populations.
3. Cognitive Interviewing:
• Patients were interviewed about their understanding of each question, creating an opportunity to elicit patient feedback on survey content.
4. Refinement:
• Following cognitive interview minor wording adjustments were made to maximize patient comprehension.
5. Incorporation into Clinic Infrastructure:
• Several different methods were tested to effectively incorporate the survey into the busy clinic flow.
• Different strategies were tested in the clinic setting.
• Factors considered included: Survey timing, collection method responsibility, address illiteracy, duration for collection of data, and sustainability.
6. Implementation:
• Executive directors attach surveys to patient charts and instruct volunteers at the beginning of clinic to hand out surveys at the end of the patient’s time with the medical team.
• Patients are asked to complete the survey in either the exam or waiting rooms and return them to the clinic staff.
• Instructions for survey administration are provided to student volunteers at orientation and in the Shade Tree handbook.
7. Data Collection and Analysis:
• The survey was replicated in REDCap Survey and data was input manually into the database, including written comments in both English and Spanish.
• Data was then exported into Microsoft Excel and responses for individual questions were sorted based on language.
• Quantitative results were analyzed for each survey item.
• Qualitative comments were categorize and coded.

Final Survey

Survey Development Process

Topic Identification: Pharmacy Wait Times

Draft Item: “I was happy with how long I had to sit in the waiting room while waiting on medication.”

Draft Spanish Language Item: “Estuve contento con cuánto tiempo yo tuve que sentarse en la sala de espera antes de recibir mis medicinas.”

Implementation in Clinic

Refinement with Cognitive Interviewing:
“I did not have to sit in the waiting room too long while waiting on medication.”

Refinement with Cognitive Interviewing:
“No tuve que esperar en la sala de espera mucho tiempo antes de recibir mis medicinas.”

Results

The following chart (Figure 2) shows quantitative results of our example survey question. Total sample size = 207, with n=154 for English responders and n=53 for Spanish responders.

Figure 2.

Table 1. Responses for:
“Please include any additional comments below.”

<table>
<thead>
<tr>
<th>Positive Comments</th>
<th>88.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thankful: Medical Team</td>
<td>11.6%</td>
</tr>
<tr>
<td>Thankful: Services Provided</td>
<td>8.4%</td>
</tr>
<tr>
<td>Thankful: Other, non-specific</td>
<td>18.9%</td>
</tr>
<tr>
<td>General Positive: Medical Team</td>
<td>29.5%</td>
</tr>
<tr>
<td>General Positive: Services Provided</td>
<td>7.4%</td>
</tr>
<tr>
<td>General Positive: Other, non-specific</td>
<td>22.1%</td>
</tr>
</tbody>
</table>

Table 2. Responses for:
“Please include other services you would like to have at Shade Tree.”

<table>
<thead>
<tr>
<th>Medical</th>
<th>54.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental</td>
<td>13.8%</td>
</tr>
<tr>
<td>Eye</td>
<td>10.3%</td>
</tr>
<tr>
<td>Social Services &amp; Psych</td>
<td>6.9%</td>
</tr>
<tr>
<td>Transportation</td>
<td>6.9%</td>
</tr>
<tr>
<td>Referral</td>
<td>3.4%</td>
</tr>
<tr>
<td>ESL</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

Lessons Learned

• Patient satisfaction is important to measure and evaluate, especially in the setting of a student-run clinic that serves a vulnerable population from whom the medical students learn.
• The demonstration of high patient satisfaction at Shade Tree Clinic strengthens the concepts of students working, providing health care services, and learning within their community.

Future Directions

• Satisfaction survey data collection has been incorporated into the daily operation of this student run clinic.
• We will evaluate for changes in patient satisfaction with:
  • A planned transition to a new clinic site
  • Annual staff turnover
  • Impact of new programs and quality improvement projects

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