

Factors Associated with Patient Satisfaction in a Pediatric Setting Based on a Newly Developed Survey

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Background

- A patient's satisfaction with health care system utilization counts as much towards his/her perception of the overall quality of healthcare as the actual diagnoses and treatment of ailments^{1,2}.
- In a pediatric setting, caregiver's satisfaction acts as a proxy for the pediatric patient's satisfaction³.
- There are a limited number of survey instruments designed to assess patient satisfaction in a pediatric clinic setting and none have examined an academic pediatric setting⁴.
- The Pediatric Clinic at the UNT Health Science Center did not have a way to assess patient satisfaction.

Aim

- In this study, the objective was to design a survey instrument to measure patient satisfaction in an academic pediatric setting and collect data using that instrument

Methods

- A paper-based survey instrument consisting of 43 questions was developed using a modified version of CAPHS[®].
- Questions relevant to the setting were developed using core survey methodology and then added to the survey instrument.
- Validity was assessed on the first implementation of the survey.
- Data was gathered at the UNT Health Science Center Health Pavilion Department of Pediatrics from 176 caregivers, over the age of 18 years by using a convenience sampling in the clinic's waiting room.
- The study questions were divided into themes and the reliability of the instrument was measured by Cronbach's alpha.
- Two separate logistic regression models were used to model patient satisfaction (high versus low); one with provider communication as an independent variable and the other with receiving timely access to care as an independent variable using SAS 9.4.

Results

Table 1: Odds ratios for factors associated with patient satisfaction.

Theme	OR	95% CL	p-value
Provider Communication	0.01	(0.002,0.78)	<0.001
Timely Appointment	0.42	(0.241, 0.722)	0.0019

Table 2: Cronbach's Alpha Value for each theme measured in the survey.

Themes	Cronbach's Alpha Value
General Questions	0.23
Patient's Satisfaction with Provider	0.92
Provider Communication	0.86
Timely Appointments	0.83
Wait Time	N/A
Coordination of Care	0.50
Other Staff	0.58
Health Status	0.63
Demographics	0.16

Conclusions

- The questions within themes that have internal consistency below 70% should be reevaluated and potentially modified.
- Provider communication and getting timely access to care had a positive impact on provider rating. This is consistent with findings in the literature.
- Removing questions with a high amount of missing data and clarifying question phrasing in the survey instrument to improve internal consistency.
- In the future data will be collected using the modified survey, a large sample size will be targeted, and analysis will be conducted first to assess reliability and validity of the modified instrument before proceeding with analyses to address questions related to patient satisfaction.
- A refined survey instrument will allow the pediatrics clinic to assess patient satisfaction periodically to ensure quality of care.
- Limitation were as follows:
 - Some questions were answered with multiple responses despite instructions.
 - Small sample size and inability to recruit Spanish speaking caregivers.

Patient Satisfaction (Table 1)

- Median provider satisfaction was 10 (IQR=2).
- Average provider communication score was 3.80 (SD=0.42); average timely appointment score was 3.38 (SD=0.73).
- *Findings from fitting logistic regression model:* As provider communication score increased by 1 unit, the odds of a patient being less satisfied was 0.01 times that of being highly satisfied (95% CL: 0.002,0.78 p<0.0001).
- *Findings from fitting logistic regression model:* As receiving timely appointments score increased by 1 unit, the odds of a patient being less satisfied was 0.42 times that of being highly satisfied (95% CL:0.241,0.722; p<0.0018).

Internal Consistency (Table 2)

- Patient Satisfaction with Provider, Provider Communication, and Timely Appointments had the highest internal consistency with 92%, 86% and 83%, respectively.
- General Questions, Coordination of Care and Demographics had the lowest internal consistency with 23%, 50%, and 16%, respectively.
- A Cronbach's Alpha could not be calculated for Wait Time since there was only one question used to measure that theme.

Lessons Learned

- The Pediatric Department's desire to have a patient satisfaction survey specific to their clinic allowed for two iterations of the survey during the development process.
- Working with staff is important to determine operations and characteristics unique to the clinic.
- Patient satisfaction is impacted by multiple factors.
- Periodically assessing patient satisfaction allows for determining areas where improvements in quality of care can be made.

References:

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