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Patient Satisfaction and Healthcare Seeking at Three Clinics

Brendan Wheeldon[1]; John Petrilli, MD[2]

[1]University of South Florida Morsani College of Medicine, Tampa, Florida, USA
[2]University of South Florida Morsani College of Medicine Department of Family Medicine, Tampa, Florida, USA

Corresponding Author: Brendan Wheeldon; email: bwheeldon@usf.edu

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Abstract

Background: Patient satisfaction is an important metric that has been associated with social determinants of health and multiple health outcomes. However, limited studies have been conducted at free clinics, particularly comparing multiple clinics.
Methods: This study surveyed patient satisfaction at three free clinics in Tampa, Florida. A written survey was distributed to patients at the clinics over 6 weeks.
Results: Satisfaction was generally high among the clinics, with patients from the student-run free clinic reporting the highest satisfaction. There was no significant difference in satisfaction scores among the clinics after adjusting for socioeconomic variables. Despite high satisfaction scores, only 58.8% of patients reported coming to clinic for a general check-up, and only 20.1% reported coming for a cancer screening test.
Conclusions: The differences between clinics were attributable to demographic factors, highlighting the importance of considering social determinants of health when discussing satisfaction. Patients at the free clinics in this sample reported high satisfaction with their care, but self-reported low receipt of preventative care. The results may indicate that patients at free clinics would benefit from education about free clinic services and what constitutes quality healthcare.

Introduction

Patient satisfaction is becoming increasingly used as a metric and goal of medical care. Its value lies in part due to its association with health behaviors and health outcomes. Higher satisfaction has been linked to increased patient safety, subjective well-being, objective health measures, and treatment adherence.[1-7] Patient satisfaction has also been tied to greater utilization of healthcare resources and of preventative care in particular.[1,8] Unfortunately, higher satisfaction has also been linked to negative outcomes like increased costs and higher mortality, which are attributed to physicians complying with unnecessary or harmful patient requests.[8-10]

Studies have shown that demographic characteristics, such as marital status and level of education, are also associated with satisfaction.[11-16] This may indicate that satisfaction is not solely a function of healthcare delivery. There is little consensus on the exact relationship between socioeconomic variables and satisfaction, likely due to both regional/cultural differences and the lack of a universal definition of satisfaction.[11] These social determinants of health could be expected to play a prominent role in free clinics whose patients are at a relative socioeconomic disadvantage.

Free clinics are an important part of the healthcare system and have been shown to decrease both emergency department visits and hospitalizations, potentially reducing healthcare costs.[17-19] However, the literature does not adequately explore factors that drive patients to utilize free clinics, particularly with regard to satisfaction. Given the relevance of satisfaction to health outcomes and service utilization, we sought to examine patient satisfaction at three

free clinics with respect to self-reported utilization of clinic services.

Methods

Three student volunteers administered a written survey to patients at 3 free clinics in Tampa, Florida (FL) from May 17 to June 25, 2021. Two of the clinics (A and C) are community-run free clinics, and the third clinic (B) is a student-run free clinic (SRFC). Clinic C is open most frequently, whereas Clinic A is open 3 days per week and Clinic B is only open 1 day per week.

The survey utilized demographic questions from the literature and self-report of services that patients receive at the clinic.[20-21] Patient satisfaction was measured using 2 representative items from the Patient Satisfaction Questionnaire-18 (PSQ-18), which assessed satisfaction with the technical quality of the clinic ("I think my doctor's office has everything needed to provide complete medical care") and the medical team ("When I go for medical care, they are careful to check everything when treating and examining me").[22] We selected these questions related to the technical quality of the clinic and medical team, because we were primarily interested in satisfaction with services. All three clinics utilize physicians and medical students. Clinic A also utilizes a high number of advance practice practitioners to provide patient care. Surveys were administered in-between patient visits, so time constraints did not permit administering the full PSQ-18.

The survey was written in English and translated into Spanish by the team with assistance from native Spanish-speaking staff and physicians at the free clinics. It was then piloted with one English and one Spanish-speaking patient, and revisions were incorporated. The survey was validated with input from a focus group consisting of two physicians with free clinic experience, a Spanish-speaking nurse from one of the participating clinics, and a statistician. All of the clinics provided letters of support for the study, and the university IRB exempted the project from review. Participants were all 18 or older and were informed in writing that participation was voluntary. No identifiable patient information was collected.

Responses were compiled in Research Electronic Data Capture (REDCap Consortium, 2021, Nashville, Tennessee). Missing data and unclear responses were addressed according to a standardized internal protocol. Results were then analyzed using SPSSv26 (International Business Machines, Version 26, Armonk, New York). To simplify analysis, the statistician recommended condensing PSQ-18 responses from a 5-point Likert scale to "agree" and "uncertain/disagree." For the socioeconomic variables, the chi-square test of independence was used for categorical comparisons. The Kruskal-Wallis test was used to compare continuous variables. For the primary analysis, logistic regression models were fitted to determine the unadjusted effects of clinic site on patient satisfaction. Multiple logistic regression models were fitted to examine the adjusted effects of clinic site on patient satisfaction while controlling for potential confounders. For the secondary analysis, the chi-square test of independence was used to determine if self-reported service utilization was associated with patient satisfaction.

Results

Three hundred and twenty-three patients completed the survey. Respondents were mostly from Clinic C, female, White, Hispanic, and Spanish speaking. Patients from Clinic A generally demonstrated different demographics from the other two clinics. Among the clinics there were significant differences in gender, race, ethnicity, primary language, relationship status, and employment status. Table 1 summarizes the demographic characteristics of the participants.

Patients were generally highly satisfied with their care (see Table 2). Among the clinics, patients at the SRFC (Clinic B) were most satisfied with both facilities (96.6%) and the medical team (93.1%). Compared to Clinic C, patients from Clinic A had lower odds of satisfaction as measured by the "complete medical care" question (OR=0.51, 95% CI=0.27-0.97, p=0.038). However, after adjusting for socioeconomic variables, there was no statistically significant difference. There was no significant difference in patient satisfaction among the clinics with respect to the medical team.

Table 3 shows the percentage of patients who

Table 1. Patient demographics and comparisons among the three clinics

Variable	Total	Clinic A	Clinic B	Clinic C	p-value
Responses, n. (%)	323 (100)	61 (18.9)	29 (9.0)	233 (72.1)	-
Age, mean years (SD)	52.0 (13.1)	49.8 (12.1)	51.7 (12.7)	52.4 (13.6)	0.293
Annual Income, mean $ (SD)	20,629 (12,949)	21,540 (13,549)	17,039 (12,844)	20,734 (12,805)	0.459
People at home, mean (SD)	3.1 (1.6)	2.9 (1.8)	3.2 (1.5)	3.2 (1.5)	0.069
Gender, n (%)					<0.001
Male	83 (26.4)*	29 (48.3)	4 (13.8)	51 (22.6)	-
Female	231 (73.6)	31 (51.7)	25 (86.2)	175 (77.4)	-
Race					<0.001
Asian	8 (2.7)	0 (0.0)	1 (3.6)	7 (3.4)	-
Black	22 (7.4)	11 (18.0)	0 (0.0)	11 (5.3)	-
White	185 (62.5)	47 (77.0)	14 (50.0)	124 (59.6)	-
Other	81 (27.4)	3 (4.9)	13 (46.4)	66 (31.7)	-
Ethnicity					<0.001
Hispanic	251 (80.2)	23 (39.7)	26 (89.7)	203 (89.4)	-
Non-Hispanic	62 (19.8)	35 (60.3)	3 (10.3)	24 (10.6)	-
Language					<0.001
English	84 (26.)	54 (88.5)	6 (20.7)	24 (10.3)	-
Spanish	228 (70.6)	4 (6.6)	23 (79.3)	202 (86.3)	-
Other	11 (3.4)	3 (4.9)	0 (0.0)	8 (3.4)	-
Relationship status					0.027
Divorced or separated	46 (14.6)	8 (13.6)	4 (14.3)	34 (14.9)	-
Married with partner	91 (29.0)	12 (20.3)	8 (28.6)	71 (31.1)	-
Married without partner	27 (8.6)	3 (5.1)	0 (0.0)	24 (10.5)	-
Single with partner	44 (14.0)	9 (15.3)	9 (32.1)	26 (11.4)	-
Single without partner	106 (33.8)	27 (45.8)	7 (25.0%)	73 (32.0)	-
Level of education					0.108
Less than high school	84 (26.9)	7 (11.5)	11 (37.9)	66 (29.6)	-
High school	113 (36.2)	25 (41.0)	10 (34.5)	79 (35.4)	-
Some college	47 (15.1)	14 (23.0)	3 (10.3)	30 (13.5)	-
College	53 (17.0)	13 (21.3)	3 (10.3)	37 (16.6)	-
Graduate school	15 (4.8)	2 (3.3)	2 (6.9)	11 (4.9)	-
Employment status					0.033
Unemployed not seeking work	77 (25.8)	14 (24.6)	9 (34.6)	55 (25.5)	-
Unemployed seeking work	76 (25.5)	23 (40.4)	4 (15.4)	49 (22.7)	-
Part time	75 (25.2)	6 (10.5)	8 (30.8)	61 (29.2)	-
Full time	70 (23.5)	14 (24.6)	5 (19.2)	51 (23.6)	-

**Percentages may not equal 100 due to rounding*
SD: standard deviation

reported receiving various services at their clinic within the past year. The most commonly reported service was prescriptions, followed by orders for blood tests, then general check-ups. Self-reported receipt of these services was not associated with either measure of satisfaction (see Table 4).

Discussion

This study at 3 free clinics found no significant difference in patient satisfaction among the clinics with respect to the clinics' services ("complete

Table 2. Comparison of satisfaction among the three clinics

Outcomes	Clinic A	Clinic B	Clinic C	p-value
Complete medical care, n (%)				
Agree	42 (68.9)	28 (96.6)	186 (81.2)	-
Disagree/Uncertain	19 (31.1)	1 (3.4)	43 (18.8)	-
Unadjusted odds ratio (95% CI): A-C		0.51 (0.27 to 0.97)		0.038
Unadjusted odds ratio (95% CI) B-C		6.47 (0.86 to 48.90)		0.070
Adjusted odds ratio (95% CI) A-C		1.36 (0.42 to 4.43)		0.606
Careful to check everything, n (%)				
Agree	48 (78.7)	27 (93.1)	190 (85.6)	-
Disagree/Uncertain	13 (21.3)	2 (6.9)	32 (14.4)	-
Unadjusted odds ratio (95% CI) A-C		0.62 (0.30 to 1.28)		0.195
Unadjusted odds ratio (95% CI) B-C		2.27 (0.52 to 10.03)		0.278

CI: confidence interval

Table 3. Services Received at the Clinic

Service	Patients Receiving Service (%)
Prescriptions	63.5
Orders for blood tests	63.2
General physical	58.8
Referral to specialist	42.7
Orders for imaging	42.1
Care for long-term medical condition	35.3
Orders for procedure	24.5
Cancer screening	20.1
Care for sudden medical condition	17.3
Immunization	13.0
Not reported	9.9

medical care") or care teams ("careful to check everything"). Though the unadjusted odds ratio between clinics A and C was statistically significant with respect to "complete medical care," this difference was no longer significant after controlling for socioeconomic variables. This suggests that satisfaction with the technical quality of the clinics was explained by patients' socioeconomic variables, not the technical aspects of the clinics' care. These findings are in keeping with the literature, which demonstrates a complex relationship between satisfaction and patient demographics.[11-16] The current study furthers our understanding of patients' experience at free clinics by highlighting the importance of considering sociodemographic variables when assessing patients' satisfaction with the technical aspects of their care. Measuring satisfaction alone is not enough. Patients in this study identified prescriptions, orders for blood tests, and general health check-ups as the services that they receive most frequently. Future studies should explore which aspects of care they value most highly, since they may not be able to access all desired services.

Existing research has failed to reproducibly identify correlations between demographic variables and patient satisfaction. A systematic review of all studies on the topic from 1980 to 2014 found different and often contradictory results. [11] For example, some studies have found that being married and having a higher level of education predict higher satisfaction.[11-14] Other studies have found higher satisfaction among unmarried and less educated patients.[11,15] As such, our findings may not be generalizable to other free clinics beyond demonstrating the importance of considering patient demographics when surveying satisfaction. Several reasons exist for this lack of generalizability. First, studies of patient satisfaction come from various unique populations. Demographic characteristics likely mediate satisfaction differently among these various groups. Second, factors external to the patient may moderate the effect of the patient's socioeconomic status. Race, for example, is often studied, but concordance of race between patient and clinician may

Table 4. Comparison between self-reported service receipt and satisfaction

Complete medical care	**Agree, n (%)**	**Disagree/Uncertain, n (%)**	**p-value**
Prescriptions			0.835
Yes	163 (79.9)	41 (20.1)	-
No	93 (80.9)	22 (19.1)	-
Referral to specialist			0.416
Yes	112 (82.4)	24 (17.6)	-
No	144 (78.7)	39 (21.3)	-
Order for tests			0.498
Yes	174 (81.3)	40 (18.7)	-
No	82 (78.1)	23 (21.9)	-
General physical			0.341
Yes	155 (82.0)	34 (18.0)	-
No	101 (77.7)	29 (22.3)	-
Cancer screening			0.521
Yes	54 (83.1)	11 (16.9)	-
No	202 (79.5)	52 (20.5)	-
Care for long-term medical condition			0.621
Yes	89 (78.8)	24 (21.2)	-
No	167 (81.1)	39 (18.9)	-
Care for sudden medical condition			0.123
Yes	40 (72.7)	15 (27.3)	-
No	216 (81.8)	48 (18.2)	-
Care to check everything	**Agree, n (%)**	**Disagree/Uncertain, n (%)**	**p-value**
Prescriptions			0.994
Yes	169 (84.9)	30 (15.1)	-
No	96 (85.0)	17 (15.0)	-
Referral to specialist			0.181
Yes	118 (88.1)	16 (11.9)	-
No	147 (82.6)	31 (17.4)	-
Order for tests			0.118
Yes	183 (87.1)	27 (12.9)	-
No	82 (80.4)	20 (19.6)	-
General physical			0.117
Yes	162 (87.6)	23 (12.4)	-
No	103 (81.1)	24 (18.9)	-
Cancer screening			0.169
Yes	57 (90.5)	6 (9.5)	-
No	208 (83.5)	41 (16.5)	-
Care for long-term medical condition			0.05
Yes	42 (76.4)	13 (23.6)	-
No	223 (86.8)	34 (13.2)	-

Care for sudden medical condition			0.218
Yes	24 (77.4)	7 (22.6)	-
No	241 (85.8)	40 (14.2)	-

impact its association with satisfaction;[23] however, other studies question this relationship.[24-25] Third, the literature does not employ a universal approach to measuring "satisfaction." It is a broad term encompassing many patient attitudes, and researchers tend to define it in the context of their research question. With varied approaches, it is not surprising that the findings are similarly varied.

Regardless of the specifics, it is clear that socioeconomic factors play a key role in patients' satisfaction with the services they receive at their free clinic. Taken in context of the rest of the literature, these results emphasize the importance of cultural competency for all healthcare providers. Familiarity with the unique values, ideas, and challenges of a clinic's patient population seem to be an effective component for providing satisfactory care.

Utilization of preventative care services in this study was notably low. Only 59% of patients reported coming to the clinic in the past year for a general health check-up, and only 20% came for any form of cancer screening. Given that the sample was 74% female with an average age of 52, we would expect utilization of these services to be higher considering the indications for cervical, breast, and colon cancer screening. Despite this low self-reported receipt of preventative services, patients were generally satisfied with their care. The highest satisfaction rates were from the SRFC with over 90% agreement on both metrics. None of the self-reported services correlated with satisfaction. This discrepancy may highlight the distinction between satisfaction and healthcare quality.[8] We cannot definitively say that these patients did not receive appropriate services, but if they did, they were unaware.

Based on our results, we suggest three activities in which every free clinic should engage their local patient community. First, explore perceptions of and barriers to preventative care, and target interventions to gaps in patients' health literacy or ability to obtain care. Qualitative studies are the most ideal starting point, since they give patients the ability to express their thoughts in their own words. Second, seek to understand how extrinsic factors like race and language relate to patients' satisfaction. Third, avoid using satisfaction as a proxy for quality by developing robust quality improvement programs to track important metrics.[26]

This study has several limitations. The survey was only provided in English and Spanish, so those who spoke neither language either relied on a translator or did not participate. The survey was validated by a focus group but did not undergo formal validation. Positive framing of satisfaction questions (where agreement with a statement indicates higher satisfaction) can lead to higher ratings.[27] The two satisfaction items in this survey were positively framed, so this bias could be at play. Lastly, service utilization was self-reported, which may not appropriately capture the services received.

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Disclosures

The authors have no conflicts of interest to disclose.

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