

# Patient Expectation Survey at a Freestanding Emergency Department

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## Abstract

There is currently limited information on patient expectations at Freestanding Emergency Departments (FSEDs). We wish to explore the determinants of patient expectations at a FSED.

**Methods:** An expectation survey was administered to outpatient adults ( $\geq 19$  yo) using convenience sampling at a Midwestern FSED with 14K/yr visits and a 4.71% admission rate. Patients were excluded if they were hospitalized, had altered mental status, or were subjects of a trauma or medical code activation. Patient response was recorded using a 5-point Likert scale (1-Not important, 5-Extremely important).

**Results (Means [95% CI]):** 162/237 (68.4%) patient subjects returned the survey. The median age was 40 years, 89.4% Caucasian and 7.4% Hispanic. 46.8% had private insurance, 30.9% self-pay and 18.1% Medicare/Medicaid. Of those who preferred a particular healthcare provider, 93.3% preferred to be seen by a staff physician. Patients preferred a shorter visit (total length of stay 64.0 min), clear explanation of care (90.1%), competent (85.8%) and caring nurses (85.8%). A higher proportion of patients rated seeing a competent physician as "extremely important" compared to seeing a caring physician (94.4% [90.9 - 98.0] vs. 82.1% [76.2 - 88.0],  $p < 0.001$ ). Patients' estimates of the total cost of the visit were \$350.00 [IQR \$200.00-\$675.00].

**Conclusion:** FSED patients expect the visit to be short, inexpensive, and the care to be delivered by competent, caring physicians and nurses; Staff physician is preferred to other types of healthcare providers. Clear patient-physician communication is important and physician competency is preferred to affordability in this population. Understanding what FSED patients expect may lead to improved patient satisfaction, patient relations, and health care outcomes.

**Keywords:** Freestanding; Emergency department; Patient expectation; Patient satisfaction

## Introduction

The first Freestanding Emergency Departments (FSEDs) were introduced to the American health care system in the 1970s when the need for urgent care was growing, especially in areas where no hospital service was available [1]. A typical FSED is built and owned by a main hospital, open 24 hours a day, and staffed by board-certified emergency physicians (EP) and licensed emergency nurses. It is equipped with an array of diagnostic laboratory and radiologic facilities and backed up by the main hospital's on-call panel of specialists. FSEDs overall are designed to function just like the Emergency Department (ED) of the main hospital except they do not handle surgery, cardiac procedures, or inpatient services.

Interest in FSEDs has been reinvigorated over the last few years in response to changing trends in hospital outpatient services and market incentives [2-5]. FSEDs are considered as an alternative to hospital-based main EDs to provide convenient health care services to growing communities that may not have the critical mass to support a full service hospital ED. They also serve to extend the presence of the hospital from the urban center of a metropolitan area to nearby suburban and rural communities. FSEDs are also advocated as a strategy to decompress the nation's overcrowded hospital-based EDs. Between 1997 and 2007, the number of annual ED visits rose from 94.9 million to 116.8 million, and on a daily basis, 30% of the nation's ED are overcrowded [6,7]. In such an environment, FSEDs frequently market themselves as healthcare that is fast, convenient, and accessible, while avoiding the overcrowding issues typically encountered at the urban hospital-based ED [3,4]. Other factors favoring FSEDs include increased competition for healthcare dollars, increased urbanization, long distances between suburban areas and hospital-based EDs, and trends to downsize rural hospitals to FSEDs [3,8]. In a recent American Hospital Association survey of the 16 states that have FSEDs, the number of FSEDs increased by 20% in 2006, from 146 to 179 [9].

Since the growth of FSEDs has its roots in the healthcare customer service movement, FSEDs distinguish themselves by offering quick and friendly service, streamlined registration, short wait times, and comfortable facilities. These are the features that FSEDs rely on to attract local patients with lower acuity medical conditions. Meeting patient expectations and patient satisfaction is therefore critical to the economic success and survival of FSEDs [10-13].

Although attaining patient satisfaction and meeting patient expectations are important to the operation of FSEDs, there is a paucity of data in academic literature that specifically addresses the issues of patient satisfaction and expectations at FSEDs. We conducted one of the first detailed patient expectation surveys at a suburban FSED to characterize what patients expect from an FSED when they present for care.

## Materials and Methods

The protocol was approved by the local institutional review board. This was a cross sectional study conducted over a 10 month period. The 24/7 FSED is located in the suburban area of a midsize city in the Midwest with a census of 14K/yr and a 4.71% admission rate. The metropolitan area (population of approximately 1,000,000) is home to two medical schools and eight full service hospitals. Using convenience sampling, research assistants approached eligible patient subjects, obtained verbal consent, and administered the patient expectation

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surveys in the waiting room or examination room (Appendix 1). Patients were instructed to fill out the surveys onsite and drop them off in the collection box upon discharge anonymously. Consecutive outpatient adults (≥19 yo) during a given enrollment period were eligible for the study. Patient subjects were excluded if they were <19 yo, hospitalized, had altered mental status, or required a medical or trauma-activation. The 43-question survey explored various areas of patient expectations (Appendix 1). Patient response was recorded using a 5-point Likert scale: 1-Not at all important, 2-Somewhat unimportant, 3-No opinion, 4-Somewhat important, 5-Extremely important. Data are reported as percentages or means [95% CI]. Proportional data and means are compared using  $\chi^2$  and t-test. Statistical significance is assumed at 95% CI or when  $p < 0.05$ .

## Results

Of the 299 patient subjects available for enrollment, 62 were excluded, leaving 237 eligible. Of these, 10 declined, 227 surveys were administered, and 162 surveys were returned for a response rate of 68.4%. Demographics of these patient subjects are tabulated in Table 1. 73 out of 162 subjects (45.1% [37.4 - 52.72]) expressed no preference for a particular type of health care provider. Of the remaining 89 subjects who expressed a preference, 83 (93.3% [89.4 - 97.1]) preferred to be seen by a staff physician, 4 (4.5% [0.2 - 8.8]) by a resident physician, 2 (2.25% [-0.8 - 5.33]) by a medical student, and none by a Physician Assistant or Mid-Level Provider (PA/MLP) (Table 2). Expectations for various wait times were consistently short: 13.8 min [9.0 - 15.4] for wait in the waiting room, 23.4 min [22.7 - 25.9] for laboratory testing, 31.3 min [29.7 - 33.0] for special imaging studies, and 64.0 min [59.2 - 65.6] for the total visit (Table 3). Patients at this FSED preferred seeing a *competent* physician to a *caring* physician: 94.4% [90.9 - 98.0] of patients rated a competent physician as “extremely important” vs. 82.1% for a caring physician [76.2 - 88.0],  $p < 0.001$  (Table 4). Other top attributes that received a “5-Extremely important” rating were 1) Receiving a clear explanation of diagnosis (90.1% [85.5 - 94.7]) and of medical care and treatment (78.4% [72.1 - 84.7]); 2) Competent and caring nurses (85.8% [80.4 - 91.2] and 85.2% [79.7 - 90.7]), respectively; 3) Facility cleanliness (84.5% [78.9% - 90.0%]), 4) The ability to play an active role in making health care decisions (74.7% [68.0 - 81.4]); and 5) Courteous and quick registration staff (75.3% [68.7 - 81.8]) (Table 2). The median estimate for the total cost of a visit to a FSED was \$350.00 [IQR \$200.00-\$675.00]. Rated lowest in terms of importance were having medical tests performed (41.4% [22.8 - 48.9]), receiving assurance (32.1% [24.9 - 39.3]), receiving a prescription (30.2% [23.2 - 37.3]) or work excuse (15.4% [9.9 - 21.0]).

## Discussion

Results of our study suggest that patients seen at an FSED share similar expectations with those seen in the main hospital regular ED [14]. As shown in Table 2, the top five attributes with the rating of “5-Extremely Important” are technical skill of physicians, clear explanation of the diagnosis, medical care and treatment, caring attitude and technical skill of nursing staff, and a clean facility [14,15]. Of interest is the fact that a higher proportion of patients preferred seeing a *competent* physician compared to seeing a *caring* physician (94.4% [90.9 - 98.0] vs. 82.1% [76.2 - 88.0],  $p < 0.001$ ). The data imply that while FSED patients desire both professional medical competency and good bedside manner, they seem to slightly prefer physicians with superior diagnostic and technical skills. Finally, three out of four patients in our survey rated their ability to have a say in their healthcare as “5-Extremely Important.” This is consistent with data in internal medicine and oncology medical literature. Patient autonomy

Age in years	Median [IQR]	40 [33-54]
Sex	Male	31.9% [24.7 - 39.1]
	Female	69.1% [60.9 - 75.3]
Race	Caucasian	89.4% [84.6 - 94.1]
	Hispanic	7.4% [3.4 - 11.5]
	Black	1.1% [-0.5 - 2.6]
	Asian	1.1% [-0.5 - 2.6]
	Other	1.1% [-0.5 - 2.6]
PCP status	Has PCP	73.4% [66.6 - 80.2]
	No PCP	27.7% [20.8 - 34.5]
Payer (Insurance)	Private	46.8% [39.1 - 54.5]
	Medicare/Medicaid	18.1% [12.2 - 24.0]
	Workers' Comp.	4.3% [1.1 - 7.4]
	Self-Pay	30.9% [23.7 - 38.0]

Table 1: Demographics.

Provider preference (N = 162)	Yes	No
	89 (54.9% [47.3-62.60])	73 (45.1% [37.4-52.72])
Staff physician	83 (93.3% [88.1-98.5])	
Resident physician	4 (4.5% [0.2-8.8])	
Medical student	2 (2.25% [-.8-5.33])	
Physician Assistant/Mid-Level Provider	None	

Table 2: Preference for a specific medical provider.

Waiting room	23.4 min [22.7 - 25.9]
Laboratory testing	13.8 min [9.0 - 15.4]
Special imaging studies	31.3 min [29.7 - 33.0]
Total visit	64.0 min [59.2 - 65.6]

Table 3: Expectations for various wait times.

Specific Attributes	Mean [95% CI]
Competent physician	94.4% [90.9 - 98.0]
Clear explanation of diagnosis	90.1% [85.5 - 94.7]
Competent nurses	85.8% [80.4 - 91.2]
Caring nurses	85.2% [79.7 - 90.7]
Cleanliness	84.5% [78.9 - 90.0]
Caring physician	82.1% [76.2 - 88.0]
Clear explanation of treatment & medical care	78.4% [72.1 - 84.7]
Courteous & quick registration staff	75.3% [68.7 - 81.8]
Have a say in their care	74.7% [68.0 - 81.4]
Receive information on health, treatments, or medication	58.0% [50.4 - 65.6]
Given a specific diagnosis	51.9% [44.2 - 59.5]
Noise level	42.6% [35.0 - 50.2]
Lighting	42.6% [35.0 - 50.2]
Have tests performed	41.4% [22.8 - 48.9]
Register in the exam room	37.0% [29.6 - 44.5]
Receive pain medication	34.6% [27.2 - 41.9]
Laboratory tests	33.3% [26.1 - 40.6]
X-ray	33.3% [26.1 - 40.4]
Receive reassurance	32.1% [24.9 - 39.3]
Prescribed medication	30.2% [23.2 - 37.3]
Injection	30.2% [23.2 - 37.3]
Pulmonary function tests	26.5% [19.7 - 33.3]
Electro cardiogram	25.3% [18.6 - 32.0]
Receive an IV	23.5% [16.9 - 30.0]
Urine analysis	22.8% [16.4 - 29.2]
Special imaging studies	22.8% [16.4 - 29.2]
Obtain an excuse from work	15.4% [9.9 - 21.0]

Table 4: Percentage of survey respondents reporting specific attributes as “5-Extremely Important”.

is one of the pillars of modern medicine. Although some patients may choose not to or may not be able to fully participate in the medical decision making process, the majority of patients desire autonomy with consequential improvement in outcome [16,17].

Data on patients' preferences for the type of health care provider could prove helpful to medical directors of FSEDs. The majority of patient subjects (54.9% [47.3-62.60]) expressed a preference for the type of health care provider (i.e., staff physician, resident physician, mid-level/physician assistant, medical student), and of these, 93.3% [89.4 - 97.1] preferred to be seen by a staff physician.

Meeting patient expectations, and therefore, improving patient satisfaction is an important goal in medical care. Previous academic studies have shown that patient satisfaction can serve as an important measure of the quality of care delivered [18]. Patients who are satisfied with care have been shown to have improved medical outcomes, increased compliance, and decreased litigiousity [18]. Satisfaction scores are used by the Centers for Medicare & Medicaid Services (CMS) and hospitals to determine reimbursement, pay, and performance evaluations of individual physicians [19,20]. Data on patient satisfaction suggest the following top predictors for patient satisfaction: technical competence of physicians and nurses, bedside manner of physicians and nurses, physician's communication skills, provision of medical information, and perceived wait time in the ED [14,15,21,22].

The results demonstrate that expected wait times for a visit to an FSED are short: 13.8 min [9.0 - 15.4] in the waiting room, 23.4 min [22.7 - 25.9] for laboratory testing, 31.3 min [29.7 - 33.0] for special imaging studies, and 64.0 min [59.2 - 65.6] for the total visit. Patient education may be necessary as these demanding high expectations for wait times may not be met even with rigorous throughput programs. Patients' median estimate for the total cost of a visit to an FSED was \$350.00 [IQR \$200.00-\$675.00], well below the average charge of \$1,131 for Evaluation and Management Code 99282. These mismatches between patient estimates of throughput metrics, costs, actual wait times, and billable amounts may serve as a source of patient dissatisfaction. Knowledge of these mismatches and preventative communication, coupled with patient education, may help FSEDs manage patient expectations and therefore achieve improved patient satisfaction.

## Limitations

The study has several limitations. It was conducted at a single site FSED in the Midwest using convenience sampling. Data on dropouts was not collected and is unavailable for analysis. The sample size was small. The enrollment periods were not weighted to achieve a more representative daily sampling of the FSED or to balance the effects of the variety of patients and physician practice styles.

## Conclusion

FSED patients in this study expect competent, caring, quick, inexpensive medical care at a clean facility, similarly to patients presenting at a main hospital ED. Staff physicians are preferred to other types of healthcare providers. Clear patient-physician communication is important, and physician competency is preferred to affordability. Understanding what FSED patients expect may lead to improved patient satisfaction, patient relations, and health care outcomes.

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