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Twenty Years of Patient Satisfaction Research Applied to the Emergency Department: A Qualitative Review

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Abstract

This clinical review article examines the patient satisfaction literature for the past 20 years. This literature is summarized for qualitative themes and general trends. Intended for the practicing clinician, these themes are then applied to the emergency department (ED) milieu. According to the Agency for Healthcare Research and Quality, the ED is the point of entry for more than half of all patients admitted to the hospital in the United States. Indeed, the ED is the "front door" to the hospital. According to Press Ganey, satisfaction with ED care is at an all-time low. A review of the literature revealed 5 major elements of the ED experience that correlate with patient satisfaction: timeliness of care, empathy, technical competence, information dispensation, and pain management. The literature supporting these 5 elements is summarized and applications to the ED setting are suggested. Other minor correlates with patient satisfaction are also presented.

Keywords

emergency department, patient satisfaction, timeliness of care, pain management

From the smaller rural emergency department (ED) to the inner-city level I trauma center, practitioners and administrators are coming to terms with the reality of patient satisfaction/customer satisfaction in today's competitive world of health care. As a result, the past 20 years have seen an explosion in the emergency medicine literature regarding patient satisfaction. In addition, articles concerning patient satisfaction and the experience of care have been published in the general medical literature and have practical applications to our particular health care environment.

What do all these studies tell the health care provider who is on the front lines? Are there themes to guide the emergency practitioner who is trying to improve this aspect of his or her practice? Are there small changes that can be easily and inexpensively implemented that might enhance the overall experience of care for the ED patient? Are there any quick fixes or simple innovations to enhance patient satisfaction? What are the practical applications of this growing body of research? This clinical review article summarizes the existing health care customer satisfaction literature and discusses its relevance to the world of emergency medicine. It is not a critical look at the literature; several critical review articles have already been published.[1,2] Rather, this is a qualitative look at the literature that attempts to expand the recurring themes that are hidden in the barrage of studies now available.

Patient Satisfaction in Context

The concept of customer satisfaction (generally speaking, how well a customer's expectations are met), and more specifically patient satisfaction, must be placed in the context of overall quality improvement. Louis Graff and others describe the triad of quality, which includes clinical quality, cost efficiency, and service quality.[3] All 3 elements must be evident to have a robust and successful quality improvement program, and it is this service quality that is the essence of patient satisfaction in the ED.

Though attempts have been made to follow the lead of other service industries, emergency medicine has factors that are unique to the customer service model. First, patients can report great patient satisfaction even though poor clinical care was rendered, and vice versa. The patient's experience of care may be at odds with the clinical efficacy of the care rendered. Patients are not necessarily reliable assessors of clinical quality. A second challenge

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involves the manner in which satisfaction measures are applied. Patients frequently view their health care in terms of illness episodes. The open heart surgery patient will recall the ED, the cardiac catheterization lab, the operating room, and the thoracic surgery intensive care unit as a continuum of health care, without clearly distinguishing the differing elements or venues of care; patients think in terms of their own health care experience.[4,5] Third, measuring patient satisfaction has proven a formidable task. While an eating establishment may count patrons or profits as markers for customer satisfaction, in health care there are no such easy measures.

A working definition of patient satisfaction includes the following: (1) overall satisfaction (usually solicited by survey), (2) likelihood to recommend, and (3) willingness to return. Indeed, these 3 overall measures abound in the literature as practical indicators of patient satisfaction. Early patient satisfaction surveys were seldom validated instruments, had built-in bias, and very low response rates. The past 20 years have seen improvement in this area with the development of survey instruments specifically for ED patients.[6]

Other quantifiable measures have been developed that lend clarity to the elusive patient satisfaction picture in the ED setting including door-to-provider time, which correlates well with satisfaction, and the ultimate indicator of patient dissatisfaction, leaving without being seen.[7-9] Of note, these 2 measures have been endorsed as performance measures for emergency medicine by the National Quality Forum.[10] Researchers regularly use continuous quality improvement tools to measure the response to particular process improvement changes in an effort to enhance and improve the patient experience in the ED.[11]

One final important note to put patient satisfaction in a theoretical framework: In 2001, the Institute of Medicine (IOM) helped articulate 6 aims for health care improvement in the United States that have become a mantra.[12] These aims get to the heart of the patient experience of care, which is really what patient satisfaction is about.

- Safe: avoiding injuries to patients from the care that is intended to help them
- Effective: providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit
- Patient-centered: providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions
- Timely: reducing waits and sometimes harmful delays for those who receive and those who give care
- Efficient: avoiding waste, including waste of equipment, supplies, ideas, and energy
- Equitable: providing care that does not vary in quality because of personal characteristics such as sex, ethnicity, geographic location, and socioeconomic status

Why Pursue Patient Satisfaction?

From a clinical perspective, patient satisfaction makes sense. Patients who are satisfied with their care are more likely to be compliant and to respond better to their treatment.[13,14] Patient satisfaction also makes sense from a risk-management perspective. Caregivers who participate in a system of good customer satisfaction experience fewer malpractice suits than their counterparts.[15,16] Additionally, there is a connection between patient satisfaction and staff satisfaction. Results of Press Ganey surveys in which patient satisfaction and staff satisfaction were measured show a clear relationship between the 2; for example, while customer satisfaction increased at one hospital, employee turnover decreased by 57%. What is good for patients does in fact appear to be good for caregivers.[17]

Finally, and of primary importance to an institution's operating executives, good patient satisfaction translates into fiscal improvement. "An ED visit is a significant encounter between patient and hospital and one that affects 'repurchase' decisions for future healthcare," note Mack and Fill in an analysis of emergency room choices among Medicare patients.[18] Despite the elderly being disproportionate users of health care, surprisingly about half have no regular physician and so choose ED care. In this study, 97% had a choice of ED and more than half had been referred by others. This verbal networking and use of services by the elderly has huge implications in terms of the focus of patient satisfaction efforts. Elder services including home health aides, equipment (eg, walkers, bedside commodes), and geriatric consultants should be available to ED patients to improve services rendered to seniors and enhance their experience of care in the ED.

Background Studies

Demographic Variables and Patient Satisfaction

Older patients were more likely to express patient satisfaction than those who are younger; this correlates with other data cited by Press Ganey.[19] Additionally, young and black patients are less satisfied with care, which is consistent with data from other outpatient and inpatient settings.[20] In one study, insured patients were more likely to recommend the ED to others, whereas the uninsured and/or indigent were less likely to do so. However, this correlation was not seen in a different study.[21] Another

variable that correlates with good patient satisfaction is acuity: higher acuity patients are more satisfied, and patients who receive multiple treatments also have higher patient satisfaction scores.[22]

Characteristics that did *not* influence patient satisfaction in the ED setting included sex, weekday versus weekend, time of day, and disposition. In addition, patient volume did not affect satisfaction although typically teaching hospitals and trauma centers perform less well on patient satisfaction surveys, perhaps as a consequence of longer wait times.[23,24] Other noncorrelative or weak predictors of patient satisfaction included satisfaction with the registration process, mode of arrival, and admission status. A large review also demonstrated a weak correlation between patient satisfaction and marital status, diagnosis, daily census, satisfaction with tests, presence of chronic illness, number of previous visits, and type of treatment.[25]

Results

The Big 5 Correlates With Satisfaction

A growing body of research has demonstrated themes associated with high ED patient satisfaction including empathy/attitude (bedside manner), acceptable wait times (specifically perceived times vs actual wait times), technical competence (both technical skills and available technology), pain management, and information dispensation.[26-30]

Empathy/Attitude

It is becoming increasingly apparent that the "art of caring" for patients correlates with satisfaction. An uncaring attitude is cited in 7% to 13% of ED complaints.[31-33] "Caring physicians and nurses" are variables that show up repeatedly in satisfaction data and at times even override waiting times as predictors of patient satisfaction. Put simply, even speed cannot compensate for rudeness, disrespect, or an uncaring attitude. This empathy/attitude correlate with patient satisfaction is consistent with the patient-centeredness aim promoted by the IOM.

Some institutions have embarked on customer service training programs to improve interactions between health care providers and patients and have achieved great results.[34] The most successful and sustained programs involve an institutional commitment to the principles of customer satisfaction and service.[35] Another new area that shows promise of improving the communication and interpersonal interaction of the encounter is *scripting*, whereby staff are provided with positive dialogue for specific situations in the ED.[36] Areas in which scripting can be helpful are registration and dealing with distressed family members, complaints, phone call requests, drug-seeking encounters, long waits for admission, and angry physicians.

Other service variables that correlate with patient satisfaction and the perception of caring include organized staff, staff introductions, and satisfactory discharge instructions. One problem beyond the control of the ED involves crowding when the department is bustling and at overcapacity. The patient's perception is that he or she is at risk for compromised care when the ED is crowded, as evidenced by long waits in the waiting room and being treated in a hallway.[37] Efforts to minimize the appearance of chaos by monitoring and controlling the noise level, creating more private care spaces, and presenting a clean and organized department to the patient can change the patient's perception of an unsafe environment. Properly displayed identification badges and introductions by staff to the patient with an explanation of the staff member's duties can also help enhance the experience of care. Overall, when physicians display more affect, give more information, and encourage dialogue with their patients, the result is higher satisfaction.[38,39]

Callback systems are also being used as a patient satisfaction intervention. Patients who have left before treatment is complete are called to determine why they left and to check on their clinical course. In addition, patients who may have had a poor ED experience because of delays or unmet expectations can be called back. This is a chance to salvage the ED encounter; it is an effective risk-management tool and a service recovery strategy used in retail sales and other service industries.

Language barriers also pose a problem in terms of patient satisfaction.[40] Some of this patient satisfaction lost ground can be made up by establishing an interpreter program or providing language training to physicians.[41,42]

Physician's Specific Correlates With Satisfaction

To be sure, not all physicians are likable, and the literature is replete with information about what patients like and dislike about their health care providers. On the other hand, it may be helpful to be informed and adapt a personal bedside manner to increase the likelihood of positive encounters with patients. A few physician attributes and behaviors deserve mention. Does the sex of the physician influence patient satisfaction? The simple answer is yes and no. Female physicians are positively associated with women's satisfaction in the ED.[43] This may be factored into physician assignments, especially where more invasive examinations and procedures will be required for female patients. With adolescent female patients in particular, or those women whose religious background makes interacting with male physicians prohibitive, the deliberate assignment of a female physician may make sense.

Does a physician's attire matter to patients or to other physicians? Patients were more tolerant of casual dress than other physicians. Half of patients prefer their ED physicians in white lab coats, and 18% did not like scrubs. Neither physicians nor patients like jeans or sandals, frills (ribbons and ruffles), excessive jewelry, or long fingernails.[44] In another study, patients had the highest confidence in images of physicians dressed in scrubs with a white lab coat and the least confidence in images of physicians dressed casually.[45,46]

Regarding neckties, though patients often mistake (30% of the time) whether or not their physician was wearing a necktie, they correlate neckties with a positive impression of the physician. Although this did not affect their impressions of the care they received, they preferred the appearance of the physician in a necktie.[47] Thus, the impact of the necktie on patient satisfaction remains an unresolved issue. The physician business card may be less objectionable than the necktie to some physicians. This simple and inexpensive item has been shown to correlate with enhanced patient satisfaction.[48]

Additionally, data have been published regarding how patients prefer to be addressed by physicians in the ED. Although most physicians addressed patients by surname, in 2 studies patients preferred being called by their first names and preferred that physicians introduce themselves by their first and last names.[49,50]

Acceptable Wait Times

Patients presenting to the ED frequently overestimate the urgency of their need for health care. They typically do not understand the triage system and interpret patient flow in the department as somehow being unfair. These factors predispose the patient to perceive their wait time as too long. Bursch et al[29] have shown that perceived waiting time (as opposed to actual wait time) is the most important variable contributing to patient satisfaction, and this finding has been replicated by others.[51] Similarly, higher patient satisfaction has been shown to correlate with waits that are shorter than expected.[52] The authors suggest that a focus on appropriate expectations regarding wait times should have a positive effect on patient satisfaction as well. This goal of acceptable waiting times is in alignment with 3 of the IOM's quality aims: timeliness of care, safe-care, and efficient care. Acceptable wait times and empathy are consistently the most important correlates with patient satisfaction in the ED.

By quickly moving patients to a care area and having the physician evaluate them in a timely fashion (less than 30 minutes is the accepted service quality goal), patients perceive that wait times are acceptable.[53] When the time interval (from arrival to physician evaluation) lengthens, the rate of patients leaving without being seen increases linearly.[54,55] Innovations such as bedside registration (which can be implemented by a registration clerk with a clipboard when bedside computers are lacking), physician triage, and team triage improve satisfaction because they effectively get the physician to the bedside sooner; this is the most critical time interval from the patient's point of view.[56-58] Time intervals can also be reduced by tracking door-to-provider times and overall length of stay and sharing these data with practitioners through a comprehensive continuous quality improvement program.[59]

Understanding utilization patterns in the ED can help each facility meet the demands of its patients/customers. There are predictable patterns of arrival to EDs regardless of size, location, and type of hospital. Almost 50% of patients arrive during the day; however, they often overflow into the 35% seen during the evening shift and the 15% seen during the night shift. Nationwide, 16% are admitted to the hospital, and the volume and acuity are slightly higher on the weekend. Acuity is also higher during the night shift.[60] Staffing according to census and arrival data, termed *demand and capacity management* by service industries, is one key to managing wait times.

Occupied time feels shorter than unoccupied time and so televisions, magazines, and DVDs are promising diversions. Though bedside televisions did not statistically improve patient satisfaction in one study,[61] the numbers were quite small, and the average length of stay for the study population was 270 minutes—perhaps too long even for a TV watcher to wait in the ED. On the other hand, a videotape with information regarding the ED operations resulted in a more favorable perception of delays and overall perceptions of the ED experience. Many office practices now provide phones, beepers, and computer jacks for laptops in their waiting rooms. Perhaps some of these innovations would be useful in patient rooms where prolonged stays are anticipated.

Unaccompanied waits feel longer than time spent with people. Though visitors are often viewed warily by ED staff, family members and friends need to be with loved ones in the ED for the comfort and satisfaction of patients with anticipated long lengths of stay. A liberal visitation policy is recommended.

Technical Competence

Perceived technical skill correlates well with positive perceptions of staff; 2 studies found perceived good technical skills to be the best predictor of global satisfaction[62,63]—even more correlative than bedside manner. This may be a troublesome realization for ED practitioners at our nation's teaching hospitals. If technical skill is highly correlated with patient satisfaction and an enhanced patient

experience, ought we to have the least experienced among us learning their technical skills on ED patients? The data on this topic are somewhat mixed. One study found that ED patients would allow medical students to perform very simple noninvasive procedures such as intravenous (IV) lines, splints, and suturing.[64] On the other hand, Graber et al concluded that patients are reluctant to have medical students perform a first procedure on them, and many would not allow medical students to perform any procedures.[65] This is actually an international dilemma. Kuan and O'Donnell in Galway, Ireland, reported that patients surveyed at a teaching hospital felt pressured to allow medical students to be involved in their care, but 78% felt the experience was positive.[66] This presents dilemmas for medical education and informed consent. It may be an area in which scripting could help, and guidelines for effectively enrolling patients in such learning encounters may need to be established in teaching hospitals.

Another technical area that has had an effect on ED patient satisfaction is ED ultrasound. In one study patients received ED ultrasound versus radiology ultrasound. Those who received ED ultrasound viewed the physician as having a more caring attitude, rated the physician as having better skills and ability, and rated overall higher satisfaction with the ED visit.[67] The scores improved as the physicians' skills progressed. In terms of patient satisfaction, there would appear to be no downside to the introduction of bedside ultrasound in the ED. In addition, it is easy to see how technical competence fits into the IOM aims, particularly the aim of effective care.

Pain Management

Pain is one of the major symptoms that cause patients to seek medical care on an emergent basis, and the complexities of pain management in the ED are only beginning to be unraveled.[68-70] Though there is a general correlation between pain relief and satisfaction, cultural factors, the intensity of the original pain experience, and differing pain scales all work to confound an understanding of this area of medical research. Though this area is worthy of a literature review in and of itself, a few themes relating to pain management and satisfaction in the ED are emerging and worth noting.

Pain management in children correlates highly with patient satisfaction and should be a focus for departments that see significant pediatric volumes. Patients appear to have preferences and expectations regarding pain management in the ED, and these could easily be met.[70,71] Perhaps because of more health care encounters and experience, senior citizens are more likely to prefer IV analgesia than younger patients; however, the oral (PO) administration route generally is preferred. The more severe the pain intensity reported, the more likely the patient will prefer parenteral medication. Another study found a slight preference for parenteral analgesics over oral, but the study population was exclusively older patients with orthopedic fractures.[72] In both studies intramuscular analgesia was the least preferred route of administration for analgesia in the ED. Although treating a patient's pain must be appropriate for the clinical setting, allowing patients to participate in such decisions does work toward the IOM's aim for patient-centered care. Earlier studies suggested differences in management of pain in the ED resulting in undertreatment of ethnic minorities and women.[73-75] These studies are part of the growing body of literature that points to disparities in care that prompted the IOM to call for equitable care.

Timely alleviation of adverse symptoms has also been shown to deter patients from leaving before being seen by a doctor.[76] By implementing pain management pathways with standardized order sets, the number of patients who receive analgesics, the timeliness of care, and patient satisfaction have been shown to improve.[77] In short, an ED should have a well-stocked selection of PO analgesics on hand and be very liberal with their dispensation. Furthermore, it should be easy to assess which patients may need parenteral meds in triage and therefore expedite IV placement.

Information Dispensation

Some studies have shown that a lack of information (explanation) has a greater effect on patient satisfaction than perceived wait times and that staff overestimate the amount of information they give patients.[78] In some departments this has given rise to the possibility of a new staff position in the ED: the patient advocate. The patient advocate can be a licensed practical nurse, social worker, or volunteer. The patient advocate makes frequent contact with the patient and family members, keeping them informed of delays and progress, and may also be trained to assist with noninvasive comfort measures such as getting blankets, telephones, or ice chips. An additional benefit of having a patient advocate in the department is to free the professional staff for the more pressing technical tasks.

Unexplained and uncertain waits feel longer and have a negative effect on patients' perceptions of the wait.[79] Frequent updates regarding a patient's progress and delays correlate with patient satisfaction and satisfactory length of stay.[80,81] A study from the University of Barcelona revealed that patients older than age 65 are particularly reassured and appreciative of frequent updates and explanations about their clinical care.[82] Providing patients with

an information sheet had equivocal results based on contradictory studies, but the newer version of this strategy (ie, having a staff member circulate in the ED and give patients and families information updates) is proving successful.[83,84] Some centers have set service goals for staff to give information updates to patients and their families at specified time intervals; this strategy has yielded excellent results. This new initiative, dubbed *ED rounding*, has great potential for the front lines. By committing to regular rounds with information dispensation on the patient's progress during the ED visit, there was a decrease in the number of patients who left without being seen, in call light usage, and in the number of inquiries at the nursing station; concurrently, patient satisfaction improved.[84] Only 1 ED study published results contrary to these findings.[85]

It is also worth noting that family and friends who accompany patients to the ED are consumers as well. A large survey study from Sweden in 2008 showed that timeliness of care, information dispensation, and interpersonal relations were the top 3 correlates with customer satisfaction for *family and friends* who accompany patients to the ED.[86]

Other information dispensation techniques that are currently being investigated include videotapes, closed circuit television, and pamphlets. At Orlando Regional Medical Center, an informational video was shown to patients at intake that explained the processes of the ED and the anticipated waits. This improved patient satisfaction.[87] Technology aside, nothing may surpass the benefit to patient satisfaction of human interaction and personally delivered updates. This correlate with patient satisfaction is consistent with the IOM aim of patient-centered care.

Other Correlates

Other issues that are sometimes correlative with patient satisfaction include privacy (especially in triage), cleanliness, and safety. In high-volume departments that care for prisoners, psychiatric patients, and society's other undesirables, patients may feel particularly threatened or unsafe and are more likely to report being generally unsatisfied. Thus, highly visible security guards and police officers can have a positive effect on the patient encounter.

Patients frequently complain about noise pollution in the ED.[88] The term *acoustic isolation* has been coined to indicate the placement of a noisy patient in a soundproof room. This benefits other patients, limits excessive stimulation of the out-of-control patient, and benefits the staff as well. It is becoming a standard of care in newer departments.

Patients also frequently complain about misdiagnosis or mismanagement in the ED, though such complaints are more frequently communication failures than true medical mistakes. For example, "The ER doc said I had the stomach flu, but my own doctor knew it was really gastroenteritis." Patients may not feel satisfied with care when certain diagnostics are not ordered (particularly skull and ankle films). Some authors suggest, somewhat controversially, the ordering of *reassurance* diagnostics or treatments. With flexibility and grace, the emergency physician may occasionally order tests or treatments that are of negligible risk. The reassurance factor can enhance the patient experience.

Variables such as ease of parking, simplicity of financial matters, and food—which often have been predictive of customer satisfaction in inpatient or office settings—were by and large trivial in ED patient satisfaction data of the past 20 years.

Conclusions

The body of literature regarding patient satisfaction in the health care setting has grown at a breakneck pace over the past 20 years. With it has come an understanding of patient satisfaction as an entity analogous to but distinct from customer satisfaction, and its context in the realm of quality improvement is better understood. It is particularly helpful to view patient satisfaction in the context of the IOM's 6 aims for health care improvement and to employ the aims as a framework for understanding.

There is still much work to be done in this area. In particular, the satisfaction requirements of different subpopulations of patients still need to be defined, and age-specific and disease-specific data are notably lacking. Furthermore, new tools for measuring this ubiquitous commodity known as patient satisfaction are required. With information technology at our fingertips and process improvement concepts at the ready, these research opportunities are waiting to be tackled.

Grand improvements in patient satisfaction can be realized by employing structural and process redesign.[89] However, there are also gains to be made through small innovations and attitudinal change. An ED can set the stage for success by knowing the demographics and utilization characteristics of its patient population and staffing appropriately. By focusing on 5 main areas (perceived wait time, empathy, technical competence, pain management, and information dispensation) and implementing modest changes in infrastructure and operations, an ED can expect to see improvement in its patient satisfaction measures. Most of the innovations suggested by the literature cited in this review require very little capital investment; they involve more changes in culture than in the physical plant. Where patient satisfaction in the ED is concerned, there are a few quick fixes

and simple innovations. These begin with the staff, not the physical plant. They require an understanding of the elements of the patient ED encounter that are important to the patient. The investment in training staff to understand these elements and to use their interpersonal assets may yield far more in this setting than was previously imagined.

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