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Key Influences of Patient Satisfaction Measurement as a Quality Indicator in Inpatient Facilities

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Abstract

Patient Satisfaction remains a focal point in overall healthcare experience. Satisfaction of patients has become a priority for hospital administrators because of the ties to improve organization performance, increase reimbursement schedules, prevent claims, and gain return to provider reputation. This study examines the key influences of patient satisfaction and how it is measured in an inpatient facility. A literature search was done through PubMed and Google Scholar to determine specific areas needing improvement. Out of 30 articles that met all search criteria (published in the year 2000 or later, survey administered in United States, published in English, administered in an inpatient facility, abstract of study pertained to one or more research questions, satisfaction scores analyzed through external agency, scores gathered from patients age 19 and older), the most frequently mentioned areas of dissatisfaction include: food, wait time, follow up/discharge, facility, medical personnel interaction, and activities/program. Further breakdown of specific points of dissatisfaction for each factor was determined by frequently mentioned specifics. The systematic review confirmed the concept that access, time, and medical personnel interaction are greatly valued by patients. Limitations of the study include the fact that response bias may exist for individuals answering surveys, interview bias may exist through wording of questionnaires, and the results are propriety in nature due to score analysis through third parties. Recommendations for assessment involve longer follow up period with the same patients and capturing a good sampling plan including both positive and negative experiences.

Keywords: healthcare consumer review, healthcare evaluation, hospital improvement

Key Influences of Patient Satisfaction Measurement as a Quality Indicator in Inpatient Facilities

New policies and regulations in healthcare are causing this field to become harder to navigate. Despite recent trends, patients remain the focal point of service administration and evaluation. Patient satisfaction is a measure that links the social, emotional, and clinical needs of the patient and risk management. This measurement is used for several purposes. Institutions that foster positive patient experiences are also more likely to have better clinical and financial outcomes, and also prevent claims.

Patient satisfaction and its measurement has become a growing area of interest to health systems. By the mid-1980s the survey methodology of patient satisfaction had become a top priority for many hospital administrators, yet there was no systematic way to measure it. Patient satisfaction surveys were created in the mid-1980s to measure patient satisfaction as a means to improve organization performance, one of which is the Press-Ganey satisfaction survey (Urden, 2002). Scores are improved primarily through assessing the patient's point of view, increasing nurse interaction, advancing healthcare mission and the timeliness of care. In the past several years, patient satisfaction scores have also been tied to health system's reimbursement schedules. Organizations may choose to penalize, adjust, or provide payment incentives based on satisfaction metrics. Payment adjustment would account for organization funding and staff bonuses (Hudak & Wright, 2000).

Statement of Purpose

The purpose of this study was to examine key influences of patient satisfaction and how it is measured. This was done by addressing the purpose of a healthcare business plan. Business plans provide a framework for examining areas of weakness in patient care. Patient satisfaction

surveys are a specific way to measure the quality of service given. A review of why satisfaction surveys are important, how they are used, and what do when one wishes to improve scores were examined. Linking business quality models of service to patient satisfaction can enable a facility's success over time, and show how employees can carry out their job responsibilities more effectively. The use of quality initiatives can help: document and improve service, understand patient needs and ensure service meets those needs, and expand and maintain relationships with between internal consumers and outside suppliers.

Literature Review

Business Plan

In light of current economic conditions, businesses must have a strategic plan to survive in the long run. A business plan is an organization's most important administrative asset. A business plan is used to design the budget and allocate resources in a way to meet the stated goals. The ultimate purpose of creating a business plan is to have a successful business. This document combines the mission, long term vision, financial output, and measures of success into a well-presented plan. Without a well-constructed business plan, stakeholders will not seriously consider aligning themselves with the organization. The purpose of any business venture is to meet the needs of consumers. Even if an innovative idea or design is formulated, it will not be successful unless it addresses a real need or desire of the population at hand (Hudak & Wright, 2000).

A business plan is useful for many reasons. Most importantly, it is designed to keep the organization on target and aids managers in taking actions needed to achieve the organization's goals. A business plan is also designed to help allocate resources. This strategy helps ensure that the organization has a financial plan to meet its goals. The financial portion of a business plan

sets benchmarks for providers, investors, and stakeholders. An organization's plan helps management operate the business more effectively and efficiently. A business plan provides a study of the industry's competitive conditions, promotional opportunities, and benchmarks of success. A company's business plan also shows if company goals are being met, whether financial standing is profitable, and if the organization is successfully meeting the needs of consumers (Hudak & Wright, 2000; Boudreaux, Cruz, & Baumann, 2006).

Businesses are expected to achieve and manage results that align with stated objectives and standards of quality. Health systems are business entities that provide a service that is in high demand. Most health care entities have developed a conceptual framework to measure, monitor, and manage performance output. Quality assessments require appropriate variables and evaluation plans. Quality cannot be assessed without a way to measure, monitor, and manage it. Performance indicators provide a snapshot of health system trends and factors, and a framework for identifying areas of quality that are rich for development and those areas that need improvement. Providers, administrators, and patients rely on performance indicators to offer meaningful feedback to steer healthcare facilities (Boudreaux et al., 2006; Messner, 2005).

Patient Satisfaction as a Quality Indicator

The American economy revolves primarily around customers. For many firms, improving consumer relations is the key to improving business performance. While striving towards this goal, new business strategies have been developed that emphasize understanding consumer attitudes, expectations, and preferences. There has been a recent push to use a company's mission statement as indices of a company's service quality. The primary reason health systems exist is to provide a service to patients with the goal of improving the overall health of the population. There are many measures of overall health systems quality. Standard factors used to

determine quality include: care received, follow-up procedure, provider relations, cost effectiveness, comprehensive care, and patient satisfaction (Cleary, 1999; Nelson & Niederberger, 1989).

An important measure of health system quality is patient satisfaction. Satisfaction portrays the consumer's perception of the quality care received and whether their needs are being met. Patient satisfaction consists of both an emotional and cognitive reaction to delivery of health services. Patient satisfaction is perception linked to one's expectations about the care they receive. When a patient's expectations are not met, realistic or not, their satisfaction with the care received is lower (Nelson & Niederberger, 1989; Boudreaux et al., 2006).

Cleary (1999) reported that patient satisfaction is a good indicator of the quality of care received. Understanding quality of care requires a definition of the attributes of the care provided, and an appreciation of what constitutes good care. Treating health conditions is a complicated process, yet it can be separated into a number of technical and interpersonal components. The technical component of healthcare includes both the science and technology combined to deal with a medical condition. This includes appointment scheduling, special services referrals, operating procedures, rules and forms, and complaint handling among others. The interpersonal aspect of providing care involves the social and psychological interaction between the patient and caregivers. This reflects the organization's attitude, effectiveness, and convenience to provide quality care. One's stay in an inpatient facility is based on individual perception. The interaction of medical personnel with patients is based on noticeable actions and behaviors. Thus, it is possible for someone to be satisfied with care received despite minimal interaction. Jessie Gruman, Ph.D. (President and founder of the Center for Advancing Health) defined patient engagement as "actions individuals must take to obtain the greatest benefit from

health care services available to them," or acting to the best of their ability to find and make good use of the health care available (deBronkart, 2011). Patient engagement leads to better health outcomes because it involves a step to change or maintain quality healthcare. Patients engaged by staff are less likely to be readmitted into the hospital within 30 days of discharge, less likely to seek emergency room care, and have fewer long term hospitalizations (Marley, Collier, & Meyer Goldstein, 2004; Taylor & Benger, 2004).

Patient satisfaction reporting is an indicator of provider performance. It can also be a measure that helps patients in choosing their source of care. There are many proven benefits to keeping patients well-satisfied. For providers, high satisfaction scores are associated with having a favorable community reputation, fewer malpractice claims, decreased turnover, and improved efficiency. Consumers who are satisfied are more likely to maintain an ongoing relationship with healthcare providers and adhere to prescribed treatment plans. Committee boards, made up of staff from each sector of the health system, have the incentive of encouraging providers to focus on the overall patient experience versus only assessing clinical diagnosis. The patient experience is primarily shaped by how each person views how medical treatment may affect their overall well-being. If patients view healthcare providers as partners who provide knowledge to take charge of one's health outside the clinical setting, both patients and providers will gain value from the interaction (Marley et al., 2004; Taylor & Benger, 2004).

Patient Satisfaction: Patient Perception

Patient satisfaction is a fundamental anchor for the financial and clinical success of a healthcare organization. Providing quality care is more than producing good outcomes and cost-effective transactions. It is important that the recipients are satisfied with the care they receive. The distinction between patient satisfaction and patient loyalty is important to establish. Patient

satisfaction is an attitude based on the service quality performance received. Patient loyalty is the behavior of continuously remaining a patient. Loyalty adds value to efforts an organization makes to measure and improve satisfaction. While patient satisfaction is not the only factor to ensure loyalty, it is an important antecedent (Fan, Burman, McDonell, & Fihn, 2005).

A number of factors shape patient expectations. Word of mouth communication, past experience, and external marketing are all determinants of expectations. When one patient shares with a family member details of how efficient treatment was administered, that person will expect similar care. When a patient's past medical experiences include prolonged waiting or delayed responses, a single appointment that goes smoothly may result in the patient indicating they were "satisfied" with their experience. Brochures, billboards, and photographs depicting a caring and unrushed physician may lead a patient to choose a provider based on perceived expectation of quality (Fan et al., 2005).

Patients do not evaluate quality based only on the outcome of the service. The service delivery process may also have an important impact on the level of satisfaction with the care they receive. Though medicine can treat symptoms, an uncaring attitude will most likely result in poor satisfaction. The SERVQUAL instrument for measuring quality services (Arnetz & Arnetz, 1996) evaluates ten dimensions of service quality that form the foundation of how patients' perceptions are assessed. The first category is tangibles; this dimension includes the appearance of facilities and equipment. Typical questions include whether the facility looks clean or the machines appear to be new and well maintained. The second category is reliability and refers to the ability to perform promised services in a dependable and reliable manner. Typical questions include whether results or follow-up are received in a timely manner. The third category is responsiveness; this covers the staff's willingness to help customers and provide prompt service.

A typical question is whether providers will take the time to thoroughly explain answers to questions. The fourth category is competence and refers to whether providers possess the required skills and knowledge to perform the necessary services. A typical question is if a medical problem can be quickly resolved or will need a specialized physician. The fifth category is courtesy, which is the politeness and respect medical personnel are expected to give patients. Typical questions ask if nurses and doctors explained procedures in a friendly demeanor and if receptionists were kind. The sixth category is credibility; this refers to the trustworthiness and honesty of the service provider. Patients may be asked questions such as whether they believe a provider has a good reputation or his or her credentials for a good provider. The seventh category is security; this refers to freedom from danger and risk. Typical questions include whether the parking lot is lighted in night hours, or if the provider fully explained the side effects or risks of complications. The eighth category is access and refers to approachability and ease of contact. Patients may be asked questions about wait time, or the amount of time required for a follow-up procedure. The ninth category is communication and refers to how well the customer is kept informed in language they can understand. Typical questions asked include if physicians describe procedures in a way patients can understand, and if staff takes appropriate time to ask follow-up questions. The final category is understanding the consumer and refers to the provider making an effort to know consumers and their needs. The most important question from a patient's perspective is if they are treated with personal attention (Le May, Hardy, Taillefer, & Dupuis, 2001).

Patient Satisfaction: What Patients Value

An experience of satisfaction or dissatisfaction is determined by a myriad of elements that drive a patient's experience when combined. To understand the complexity of patient experience in healthcare, these factors must be understood as well. Access is a factor that patients greatly value. In a patient's context, access refers to processes that involve patients arranging for and obtaining care needed. A consumer's first impression of the operational aspect of a health entity is when an appointment is scheduled. Service indicators that can result in a pleasant or unpleasant experience include the number of telephone rings before someone answers, ability to speak with a "live" person, length of time spent on hold, staff helpfulness, multiple availabilities, and total time required to make an appointment. When patients are already in the office, there is an expectation to schedule a follow-up appointment conveniently. Factors that affect this quality are the number of availabilities, written verification of the next appointment, the nature of the visit, and the provider's responsiveness to the urgency. Clear procedures and consistency in scheduling are needed to prevent bottlenecks from occurring. In addition, patients seeking treatment who are employed may not be able to get time off during business hours to obtain treatment. Thus, availability of services during evening hours is a satisfaction issue (Le May et al., 2001).

Traditionally, one of the biggest patient complaints is wait time. One of the most important commodities for most people is time; thus people become sensitive to anything that subjectively appears to rob them of a disproportionate amount of time. Time delays in healthcare can come in the form of wait time, travel time, or the ease of completing a medical task such as filling a prescription. Wait time is most commonly associated with the reception and treatment room. Although delays will naturally occur, the way in which they are managed determines how

they are perceived by patients. Proper handling of delays include providing an explanation of the extended wait time and minimizing total wait time in the reception and treatment room. Patients appreciate being informed about a delay. When patients see medical personnel preparing for an examination, delays become more tolerable because progress is observable (Le May et al., 2001).

Wait time is most crucial to a patient when in the emergency room. The perceived value of health care greatly diminishes at the thought of not being able to get the needed help in an emergency. If a delay does happen in this situation, a patient is likely to choose a competitor to obtain health care in the future. Other value elements in emergency situations include the ease of reaching care by telephone, directions provided for obtaining care, and transportation to emergency services. Beside the physical factors of prompt telephone answering and minimal hold time, patients need to be assured help is one call away. This type of aid may come in the form of trained nurse advice on the phone. Precise and clear instructions for a patient in an emergency situation is critically important. Transportation is also a commodity that must be available to those in high risk situations. Patients seek the security of knowing these are available to them in case of a life threatening situation (Urden, 2002; deBronkart, 2011).

An average physician may perform 150,000 patient check-ups in a career (deBronkart, 2011). Therefore, a patient's first impression is important to satisfaction and pivotal in gaining stable consumers. Healthcare has evolved from condition-based, to physician-based, then to patient-centered, and now to relationship-based care. Studies show that patients prefer to be involved in their health care decisions. Patients find greater value in care when caregivers convert complex clinical terminology to meaningful information patients can understand. All patients can also benefit from supplemental verbal explanations with visual aids. Complex conditions are best explained with auditory and visual aids to account for all types of learners.

Adequate time spent on explanation is also a factor important to patients. Nothing is more frustrating to a patient than sensing that a physician is rushing through an explanation of a medical condition. A rushed or cursory explanation will leave someone more confused and more likely to seek a second opinion from another health professional. In addition to sufficient time in the exam room, patients greatly value all their questions being answered (Saultz & Albedaiwi, 2004).

How Satisfaction is Measured

There has been an increase in an organization's ability to produce high quality services. In an attempt to remain competitive, many facilities form a committee to focus on quality related issues for the entire organization. Thus, organizations rely on consultants or third-party vendors who specialize in quality improvement techniques. The main goal of these consultants is to increase the overall quality of an organization's products (Taylor & Benger, 2004; Saultz & Albedaiwi, 2004).

Quality is the extent to which a product or service meets the requirement of those who use them (Cleary, 1999). Quality is measured for both 1) the extent to which a service possesses an intended feature and 2) the extent to which the product or service conforms to the intention of its design. These aspects of quality are measurable and give businesses a deeper insight into the operations of the company. Measuring quality allows firms to know how well the business is working, see where improvement is needed, and determine if past changes have led to improvement (Le May et al., 2001).

Quality can be measure of either *hard* or *soft* factors. Hard factors involve measurements of whether or not a product served its purpose and met the criteria of intended service. Soft factors focus on the attitude and perceptions of the services or hard criteria. There has been a

recent shift to focus on the soft factors because these are criteria needed to measure the quality and satisfaction of services given (Urden, 2002). This type of measurement also provides a more comprehensive understanding of consumers' attitudes and perceptions (Torres & Guo, 2004).

Knowledge of consumers' perceptions about a particular service allows organizations to make better decisions. These companies gain a competitive advantage due to knowing customer requirements and expectations and how to meet them. In order to properly use these metrics, customer satisfactions measures must be properly developed and measured. Questionnaires are most commonly designed to accurately measure customers' attitudes. The three main focus points of customer satisfaction surveys are customer market and knowledge, customer satisfaction and relationship enhancement, and customer satisfaction results (Torres & Guo, 2004).

Customer satisfaction questionnaires are most appropriate for service-oriented organizations. This is because quality, in part, is determined by the extent to which services meet the requirements and perceptions of the customer. The purpose of customer satisfaction questionnaires is to evaluate already existing processes, and develop guidelines for further implementing quality service. These guidelines are crafted from both practical and scientific standards, and focus a firm's attention on the customers (Hudak & Wright, 2000).

Each phase in constructing helpful satisfaction questionnaires contains specific steps in understanding customer opinions. The first step in constructing an informative questionnaire is to identify customer requirements that reflect the important features of a service. Identifying customer requirements can be done through reading literature. The next step is developing and evaluating the questionnaire. The goal of developing a questionnaire is to assess specific information about consumer perceptions, which corresponds to customer requirements identified

in step one. Once the questionnaire is made, step three involves administering it. The final step requires evaluating responses and analyzing conclusions drawn from response data (Urden, 2002; Hudak & Wright, 2000).

Satisfaction surveys are used for several purposes, each providing specific information about consumer perception. The purposes include: determining customer requirements, developing a sampling set of questions, creating the survey, and using the information gained from completed surveys. Tracking the consistency and growth of satisfaction will show the exact process and methodology gained from the survey over time (Moret, Rochedreux, Chevalier, Lombrail, & Gasquet, 2008).

To encompass the best assessment of patients' experience at a medical facility, evaluations are administered one to three days after discharge. Evaluations are most commonly done through written questionnaires or follow-up phone interviews, and are administered by a third party quality based program. These surveys consist of questions asking patients to rate their care and experiences regarding their overall stay. Topics of interest include: parking accommodations, variety of food, cleanliness of facilities, communication with doctors and nurses, ease of follow-up appointments, and the probability of recommending friends and family to the same facility for medical care. Results of patient satisfaction surveys are then benchmarked against other hospitals and medical facilities in the area through a national database. Benchmarking allows hospital specific scores to evaluate their performance and track improvement over time (Moret et al., 2008).

Methodology

Based on the literature and conversations with inpatient facilities, the following research questions were constructed to address the best way patient satisfaction can be measured and understood.

Research Questions

1) What are the key topic areas influencing patient satisfaction in short-term inpatient care settings?
2) Within the key topic areas, what components of the patient experience are most cited in patient satisfaction literature?

Approach

To evaluate the areas influencing overall experience, this study focused on factors correlated with patient satisfaction. Literature was reviewed to determine the specific issues and evidence of key areas needing improvement. As articles were reviewed, key areas of influence of satisfaction and specific evidence pertaining to these areas were noted.

Evidence-based literature needs to be considered when deciding whether a method or theory is worth implementing. One key component of evidence-based public health is to make decisions based on the type of scientific evidence available (Brownson, Chriqui, & Stamatakis, 2009). Table 1 shows categories of the types of public health evidence published as described by Brownson, Chriqui, and Stamatakis (2009). The most reliable types of scientific literature to include in a study are either evidence-based or effective reviews. Evidence-based reviews are the result of observation, theory, or experiment. The principle of this type of study is based on the validation of decision making within public health by classifying results and recommendations from peer-reviewed journal articles and systematic reviews. Effective reviews, rather than pilot

studies, are used to define articles that seek to answer a previously established question or phenomena. Effective studies also provide suggestions for interventions in health outcomes and behavior, and process measures. This review is based on peer-reviewed literature and other scholarly articles retrieved through online databases. It uses the literature to affirm decision making based on past outcomes.

Published literature was examined to determine the parameters of how to target specific factors within an inpatient healthcare facility to improve quality. The goal was to identity the factors most commonly identified as useful in order to improve patient stay as assessed through satisfaction questionnaires. For this study, a review of effective literature was used to identify variables one might address to influence patient satisfaction.

Table 1

Levels of Scientific Evidence Based Literature

Category	Definition	Criteria for Scientific Evidence
Evidence-based	Peer review by systematic or narrative review	- Based on study design and execution - Potential side benefits or harm - External validity - Costs and cost-effectiveness
Effective	Peer Review	- Based on study design and execution - Potential side benefits or harm - External validity - Costs and cost-effectiveness
Promising	Written program evaluation without formal peer review	- Formative evaluation data - Theory consistent, plausible, potentially high reach, low cost, replicable
Emerging	Ongoing work, practice based summary, evaluation in progress	- Learning evidence of effectiveness - Formative evaluation data - Theory consistent, low cost, potentially high reaching, plausible, replicable, face validity

Note: Taken verbatim from Brownson et al., 2009

An effective based approach is used in this study because it is a literature review focused on a specific research question that seeks to identify, appraise, select, and synthesize all quality evidence related to that question.

Search Strategies

PubMed, Wright State University Library, and Google Scholar were used to search for keywords. Keywords used in PubMed and Google Scholar were “patient satisfaction improvement inpatient”, “hospital satisfaction inpatient improvement”, “healthcare evaluation inpatient improvement”, and “healthcare consumer satisfaction inpatient improvement”. The initial search strategy resulted in hundreds of articles (Table 2).

Table 2

Search Strategies (PubMed)

Keyword Search	**Patient Satisfaction Improvement**	**Hospital Satisfaction Inpatient**	**Healthcare Consumer Satisfaction Inpatient**	**Healthcare Evaluation Inpatient**
Initial Results:	10,373	2,216	1,895	3,369
Filter: Publication Dates (1/1/2000 – 4/10/2014)	8,666	1,680	1,443	2,618
Filter: English	8,666	1,530	1,260	2,404
Filter: Age (19+ years)	5,801	855	869	1,389
Filter: Adding “Inpatient” or “Improvement” Keyword	55	113	120	147
Reviewed	14	14	11	3

Selection Strategies

Additional criteria were applied to the articles found through the search strategies for the final selection of eligible articles for inclusion in the study (Figure 1). To be included in this analysis, a study had to meet all the following criteria:

1) The study was published in the year 2000 or later.
2) The study was administered in the United States.
3) The study was published in English.
4) Patient satisfaction was assessed in an inpatient clinic or hospital (including emergency department, excluding palliative care). Surveys were administered to patients with a length of stay from at least 24 hours to 10 days.
5) Abstract of the study pertained to one or more of the research questions (key topic areas influencing patient satisfaction, relationship between patient satisfaction and quality of patient, and most recommended strategies for improving patient satisfaction).
6) Patient satisfaction scores were analyzed through an external agency or national benchmark program either verbally or through a written questionnaire.
7) Patient scores were gathered from patients who were adults (age 19 or older).

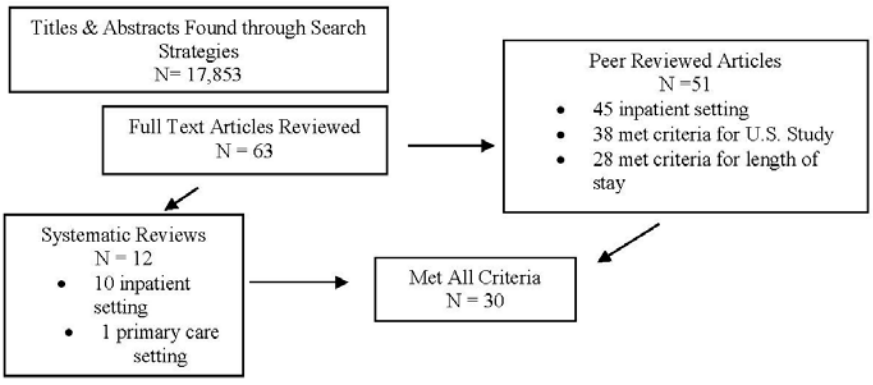

Figure 1. Literature search for the final selection of eligible articles.

A total of 17,853 titles and abstracts published after the year 2000 were found through search strategies using key words through PubMed and Google Scholar. The literature search resulted in finding 63 articles from both search engines that pertained to the research questions and met the age criteria. Out of these, 12 articles were systematic reviews of previously researched patient satisfaction improvement results. The other 51 articles consist of peer reviewed articles that include data from questionnaires conducted. Out of these, 30 articles met all criteria, including length of stay in a United States inpatient facility.

The requirement that studies be administered in the United States is because of the fact that healthcare laws vary in different countries, thus may produce skewed satisfaction levels. The requirements also include the analysis of scores and quality definitions come from outside sources to avoid biases, such as sampling or interviewer bias. Selected reviews included both systematic and original research articles of patient satisfaction instruments administered by third parties or written questionnaires.

Table 3 includes a list of articles found through a search on Web of Science. The 30 articles found in PubMed and Google Scholar were each entered in the Web of Science database to determine how many times each article was cited in other literature. Through reading the abstracts of each cited reference, four new articles met all initial search criteria.

Table 3

Search Strategies (Web of Science)

Article Identified by Original Search	New Article Identified
Sun, B. C., Adams, J., Orav, E. J., Rucker, D. W., Brennan, T. A., & Burstin, H. R. (2000). Determinants of patient satisfaction and willingness to return with emergency care. *Annals of Emergency Medicine*, *35*(5), 426-434.	Welch, S. J. (2010). Twenty years of patient satisfaction research applied to the Emergency Department: A Qualitative Review. *American Journal of Medical Quality*, *25* (1), 64-72. Toma, G., Triner, W., & McNutt, L. A. (2009). Patient Satisfaction as a Function of Previsit Expectations. *Annals of Emergency Medicine, 17*(6), 334-338.
Taylor, C., & Benger, J. R. (2004). Patient satisfaction in emergency medicine. *Emergency Medicine Journal*, *21*(5), 528-532.	Guss, A., Gray, S. & Castillo, M. (2014). The Impact of Patient Telephone Call After Discharge on Likelihood to Recommend in an Academic Emergency Department. *Journal of Emergency Medicine*, 46 (4), 560-566.
Boulding, W., Glickman, S. W., Manary, M. P., Schulman, K. A., & Staelin, R. (2011). Relationship between patient satisfaction with inpatient care and hospital readmission within 30 days. *The American Journal of Managed Care*, *17*(1), 41-48.	Horwitz, I., Moriarty, J. P., Chen, C., Fogerty, R. L., Brewster, U. C., Kanade, S. …..Krumholz, H. M. (2013). Quality of Discharge Practices and Patient Understand at an Academic Medical Center. *JAMA Internal Medicine*, *173* (18), 1715-1722.
Total	4

Results

The articles that met the selection criteria were reviewed to determine the main factors contributing to patient satisfaction. Table 4 shows the topics of interest that each article addressed. The six main topics of interest include food, wait time, follow up/discharge, facility, medical personnel interaction, and activities/programs offered during a patient's stay. The most common topics of interest include follow up/discharge (mentioned in 29 out of 30 articles), wait time (mentioned in 26 out of 30 articles), and medical personnel interaction (mentioned in 27 out of 30 articles).

Table 4

Main Factors Contributing to Patient Satisfaction

Article	Food	Wait Time	Follow Up/ Discharge	Facility	Medical Personnel Interaction	Activities/ Program
Brown, Sandoval, Levinton, & Blackstien-Hirsch, 2005		x	x		x	
Wickizer et al., 2004		x		x	x	x
Marley et al., 2004			x	x	x	x
Quintana et al., 2006		x	x	x	x	x
Fan et al., 2005		x	x	x	x	
Sun et al., 2000		x	x	x	x	
Boulding et al., 2011	x	x	x	x	x	x
Yeakel, Maljanian, Bohannon, & Coulombe, 2003		x	x		x	x
Sun, Adams, Orav, Rucker, Brennan, & Burstin, 2001	x	x	x	x	x	
Spaite et al., 2002		x	x			
Taylor & Benger, 2004		x	x		x	
Saultz & Albedawi, 2004		x	x		x	
Bordreaux et al., 2006	x	x	x	x	x	x
Otani & Kurtz, 2003		x	x		x	
Garman, Garcia, & Hargreaves, 2004		x	x	x	x	x
Urden, 2002	x	x	x	x	x	x
Torres & Guo, 2004	x	x	x	x	x	x
Barr, 2006	x	x	x	x	x	x
Le May et al., 2001	x	x	x	x	x	x
Messner, 2005	x	x	x	x	x	x
Pines et al., 2008		x	x	x	x	
Hudak & Wright, 2000	x	x	x	x	x	x
Rao, Weinberger, & Kroenke, 2000	x	x	x	x	x	x
Moret et al., 2008			x		x	
Welch, 2010	x	x	x	x	x	x
Toma, Triner, & McNutt, 2009		x	x		x	
Guss, Gray, & Castillo, 2014			x			
Horwitz et al., 2013			x			
Total	11	26	29	19	27	15

Table 5 shows that poor quality was the most frequently discussed factor of dissatisfaction, discussed in 6 out of the 11 articles that discussed food as a factor in overall satisfaction. Limited quantity was a factor of dissatisfaction mentioned in 3 out of 11 articles. Temperature was a factor of dissatisfaction mentioned in only 2 out of 11 articles, yet may not be a factor patients would notate unless specifically asked.

Table 5

Factors of Dissatisfaction Associated with Food

Food	Total
Poor Quality	6
Limited Selection	5
Dietary Restrictions Not Met	4
Limited Quantity	3
Temperature (Not Hot or Cold Enough)	2

Table 6 shows that over 10 minutes of wait time for admission in a waiting room was the most frequently mentioned reason for dissatisfaction, mentioned in 15 out of 26 articles. Limited choice of option to choose an appointment time was a factor discussed in only 3 out of 26 articles mentioning wait time. Schedule of events not followed promptly was also mentioned frequently, in 10 articles. This factor refers to the events following admission such as taking blood pressure, speaking with a nurse, changing clothes, and waiting for anesthesia among others.

Table 6

Factors of Dissatisfaction Associated with Wait Time

Wait Time	Total
Over 10+ Minutes Wait Time for Admission	15
Schedule of Events Not Followed Promptly	10
Over 3+ Days to Schedule Procedure	5
Limited Choice of Appointment Time	3

Table 7 shows that no clear instruction given for post discharge is the most frequently mentioned factor of dissatisfaction, discussed in 15 out of 29 articles mentioning follow up. Follow-up appointment availability scheduled over one week after discharge was mentioned in only four articles. Another commonly discussed factor of dissatisfaction was being unprepared for discharge, mentioned in 12 articles. This factor focuses on patient perception of their own health, and is complex in that it reflects not only one's own perception but the feedback of the hospital staff.

Table 7

Factors of Dissatisfaction Associated with Follow Up/Discharge

Follow Up/Discharge	**Total**
No clear instruction give for post discharge	15
Patient not Feeling Prepared for Discharge/Discharge too soon	12
Follow Up Done 1+ Day After Discharge	7
Follow Up Appointment scheduled more than 1+ week after discharge	4

Table 8 shows that lack of cleanliness is a factor of dissatisfaction mentioned in 10 out of 19 articles regarding facility upkeep. Comfort of the bed and other furniture was only mentioned in two out of 19 articles. According to the articles, in room privacy was addressed more than security.

Table 8

Factors of Dissatisfaction Associated with Facility

Facility	Total
Not Cleaned Routinely	10
No Privacy/Sharing a Room	8
High Noise Level	5
Lack of Security Locks, Alarms, Lighting	4
Limited Parking Spots	2
Bed & Furniture Not Comfortable	2

Table 9 shows that category of rude medical personnel was the most frequently discussed issue of dissatisfaction, mentioned in 14 out of 27 articles regarding medical personnel interaction. Lack of patient confidentiality was mentioned only in four out of 27 articles. The nurse response to patient requests was another commonly discussed measure of satisfaction, mentioned in 10 articles.

Table 9

Factors of Dissatisfaction Associated with Medical Personnel Interaction

Medical Personnel Interaction	Total
Rude, Not Friendly	14
Nurses not prompt to respond to requests	10
Poor Communication, lack of proper explanation of diagnosis/procedure	10
Less than 2x Interaction per Visit	7
Patient Confidentiality Not Honored	4

Table 10 shows that lack of social recreation was the most frequently discussed topic of dissatisfaction, mentioned in four out of 15 articles. Limited availability of space for visitors was a factor mentioned only two out of 15 times. The lack of a post discharge or therapy program was another factor causing dissatisfaction, and might not have been thought of unless asked. The data shows that the topic of program/activities is the least talked about in the literature.

Table 10

Factors of Dissatisfaction Associated with Program/Activities

Program/Activities	Total
Lack of Social Recreations: Limited TV & Magazine Selection, No wi-fi	4
Limited Visitor Hours	3
Limited Availability of Visitor Space	2
No post discharge rehab or therapy program	2

Discussion

This study assessed peer-reviewed articles to examine key influences on patient satisfaction and the components of patient satisfaction most cited in literature. Journal articles examined were published between the years 2000 to 2014, administered in the United States, published in English, administered to patients with an inpatient length of stay from at least 24 hours to 10 days, had an abstract that pertained to one or more of the research questions, and had scores that were analyzed through an external agency. Through searching PubMed, Web of Science, and Google Scholar, 30 peer-reviewed and systematic reviews were selected and read for analysis. The selected articles all identified six key factors contributing to patient satisfaction: food, wait time, follow up/discharge procedures, facility characteristics, medical personnel

interaction, and activities/program offerings. Based on the six main factors, further breakdown of specific points of dissatisfaction for each main factor was determined by frequently mentioned specifics.

The results indicate that medical personnel interaction, wait time, and follow-up/discharge are the most frequently cited factors patients value during inpatient stay. The fact that medical personnel interaction was identified as an important factor indicates patient's need for face-to-face care and communication. These results support the expectation that consumers greatly value their time, communication with medical professionals, and preparation for managing health after their inpatient stay.

The systematic review confirmed the concept that access is a factor patients value. From a patient's perspective, access is the process that involves arranging for and obtaining medical care needed. The reviewed articles reflect patient dissatisfaction in limited choice of appointment time and scheduling appointments more than three days in advance. A patient's perception of their overall healthcare experience is first formed while attempting to schedule an appointment, thus access can enhance the rest of the patient experience. Further aspects related to access may include the number of available appointments, option of scheduling multiple appointments at one time (Boudreaux et al., 2006).

The idea that wait time is of great importance to patients was confirmed through article review. Time is one of the most valued commodities for people; thus anything that proceeds in a timely fashion is generally appreciated. The reviewed articles reflect dissatisfaction in waiting over 10 minutes for admission (mentioned in 15 out of 30 articles), schedule of medical events not followed promptly (mentioned in 10 out of 30 articles), and follow up done more than one day post discharge (mentioned in seven out of 30 articles). The cause for time delays may

include time in the waiting room, travel time, or the ease of completing a medical task such as filling a prescription. Although delays are inevitable, patients generally value visible progress. The prolonged time to receive care may become tolerable when given an explanation. An explanation for delay becomes crucial in an emergency situation (Hudak & Wright, 2000).

The systematic review confirmed the idea that medical personnel interaction is a factor greatly valued by patients. Interaction with medical personnel creates a personal experience affirming the patient is responded to, cared for, and heard. The reviewed articles show dissatisfaction in rude or unfriendly encounters with staff caregivers, slow to respond to requests, poor communication between patient and medical staff, less than two times of medical staff interaction per day, and patient confidentiality not honored. The average healthcare worker is assigned to care for up to a dozen patients in a given day, and personable interaction with each patient is of great value (Urden, 2002). Patients also generally value the proper explanation of medical procedures and conditions in simple terms to gain knowledge of how their condition is being treated. Prompt responses to requests are also generally valued because leaving a patient feeling rushed or confused will more likely result is finding a second opinion elsewhere (Marley et al., 2004).

Limitations

A reoccurring theme in the articles reviewed was the idea that patient experience in patient satisfaction is subjective by nature. A single person answering a satisfaction questionnaire could provide different answers depending on their mood or recent interactions. In addition, consumers are more likely to fill out patient surveys when there is an issue of dissatisfaction. With this mindset, many patients who are satisfied may not feel the need to document details of their stay. This is a typical response bias. Thus, satisfaction is not a

standardized measurement and can be difficult to properly assess. This can be counteracted by constructing a fair sampling plan to include all ranges of satisfaction. An all-inclusive sampling plan would involve prompting patients more than once to fill out a questionnaire, prompt survey respondents to fill out same questionnaire months later to determine if satisfaction perception has changed, and use a third party company trained to administer and analyze scores.

In addition, the articles reviewed consisted of compilation of literature rather than raw experimental data. The data from patient questionnaires are left to interpretation by the authors, and thus are subject to interviewer bias and primarily dependent the interviewer's skills and perception. A national data set of patient satisfaction does not exist to compare with or use for standard analysis. Therefore, patient satisfaction most likely is a proprietary topic with a lack of evidence available to the public to determine if this is the best way to measure patient experience. Healthcare organizations are using consultants and private businesses to gain knowledge on analysis and improvement of patient satisfaction. This knowledge is tied to reimbursement schedules and has become very valuable to healthcare facilities. Thus, third party vendors privatize this information.

The most common third party vendor used by healthcare organizations is Press-Ganey. This company was founded in 1985, yet recently gained reputation as improvement of patient experience has become important in the healthcare industry. Dr. Press, the company founder, developed a form of survey methodology to systematically measure patient satisfaction with the goal of improvement. Since then, Press-Ganey has become a business partner to over 10,000 healthcare organizations in the United States with the goal of helping their clients create and maintain high performing facilities in order to improve patient experience. Organizations that are known for high patient satisfaction are more likely to have higher clinical and financial

outcomes. This could be the case of reverse causality. Thus, it is important to emphasize the need for healthcare entities to correlate all aspects of operations to help manage and improve performance (Zusman, 2012).

Currently, analysis from peer reviewed articles indicates patient satisfaction is a promising way of determining the needs and perceptions of what consumers value. At this time, more evidence is needed to determine specific methods of improvement for specific topics of dissatisfaction.

Another common limitation is the need for a longer follow-up period for administering satisfaction surveys. The articles reviewed focused on surveys administered either during stay or shortly after discharge. To truly capture long term patient experience, follow up at one, three, and six months is needed to determine consistently of satisfaction over time (Cleary, 1999). With multiple follow ups with the same patients, additional feedback from patients may not only help gain a better picture of satisfaction but also help patients maintain health changes.

Recommendations for Assessment

Patient satisfaction surveys have been effective in identifying the key factors consumers value during their inpatient experience. Hospitals should take care to ensure both positive and negative experiences are captured. In order to do this, a good sampling plan and incentivizing responses across positive, negative, and intermediate experiences must be included. If surveys are given post discharge, the returned questionnaires will most likely reflect those with negative experiences (Fishman et al., 2004). Follow-up with the same patients is also needed at various time intervals post discharge to determine if specific factors of satisfaction have changed over time and if additional feedback is needed.

According to the articles reviewed, the most common areas of importance for consumers include wait time, medical personnel interaction, and discharge procedures. Specific recommendations regarding lowering wait time include having extra staff members work during peak hours, which would in turn help lower wait time in admission room and allow the schedule of events to be closely followed. With regard to improving satisfaction with medical personnel interaction, routine physician and nurse training should be implemented. This training should teach staff members customer service-focused care, set a standard for how often staff check in with patients, implement a goal time of how prompt staff respond to patient requests, and train staff in effective communication. Measuring the success of training can be monitored through an incentive based system where hospital staff are rewarded in accordance with positive patient feedback. It may also be helpful to assess satisfaction at the time of discharge and again after a period of time, so the patient has time to reflect on their experience (Cleary, 1999). Additional therapy programs can be offered for those requiring extra care.

Conclusion

Patient satisfaction questionnaires provide one of the most direct ways to determine what consumers value, and hospital service performance. Patient satisfaction surveys must be designed to capture a patient's perception of what is valued, areas of improvement, and satisfaction. Those consumers who choose to complete a survey may feel more passionate about providing feedback. In addition, inpatient facilities gain an understanding of how staff and programs can be improved to produce quality care. By analyzing and improving specific factors patients value, hospitals not only become equipped to provide quality care, but also gain a better provider reputation and gain a competitive edge over other facilities. This can maximize both patient numbers and performance-based reimbursements.

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Appendix A – List of Competencies Met in CE

Tier 1 Core Public Health Competencies

Domain #1: Analytic/Assessment
Describe the public health applications of quantitative and qualitative data
Describe how data are used to address scientific, political, ethical, and social public health issues
Domain #2: Policy Development and Program Planning
Gather information relevant to specific public health policy issues
Gather information that will inform policy decisions (e.g., health, fiscal, administrative, legal, ethical, social, political)
Apply strategies for continuous quality improvement
Domain #3: Communication
Solicit community-based input from individuals and organizations
Domain #4: Cultural Competency
N/A
Domain #5: Community Dimensions of Practice
Identify stakeholders
Describe the role of governmental and non-governmental organizations in the delivery of community health services
Domain #6:Public Health Sciences
Describe the scientific evidence related to a public health issue, concern, or, intervention
Retrieve scientific evidence from a variety of text and electronic sources
Discuss the limitations of research findings (e.g., limitations of data sources, importance of observations and interrelationships)
Describe the laws, regulations, policies and procedures for the ethical conduct of research (e.g., patient confidentiality, human subject processes)
Domain #7: Financial Planning and Management
Describe the local, state, and federal public health and health care systems
Adhere to the organization's policies and procedures
Identify strategies for determining budget priorities based on federal, state, and local financial contributions
Report program performance
Translate evaluation report information into program performance improvement action steps
Contribute to the preparation of proposals for funding from external sources
Apply basic human relations skills to internal collaborations, motivation of colleagues, and resolution of conflicts
Demonstrate public health informatics skills to improve program and business operations (e.g., performance management and improvement)
Describe how cost-effectiveness, cost-benefit, and cost-utility analyses affect programmatic prioritization and decision making
Domain #8: Leadership and Systems Thinking
Identify internal and external problems that may affect the delivery of Essential Public Health Services

Concentration Competencies

Public Health Management
Have a knowledge of strategy and management principles related to public health and health care settings
Be capable of applying communication and group dynamic strategies to individual and group interaction
Have an understanding of organizational theory and how it can be utilized to enhance organizational effectiveness
Have a knowledge of leadership principles
Know change management principles
Have a knowledge of successful program implementation principles
Have a knowledge of strategies used for monitoring, evaluating, and continuously improving program performance

Public Health Management (Cont'd)
Be capable of applying decision-making processes
Have an awareness of strategies for working with stakeholders to determine common and key values to achieve organizational and community goals
Know strategies for promoting teamwork for enhanced efficiency
A knowledge of the finance and accounting skills needed for operational management, performance assessment, and forecasting
An understanding of marketing principles and strategies
A knowledge of ethical principles relative to data collection, usage, and reporting results
An awareness of ethical standards related to management
A knowledge of ethical standards for program development