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MEASURING THE LEVEL OF PATIENT SATISFACTION OF EMERGENCY ROOM PATIENTS AT METHODIST HOSPITAL: IS THERE A DIFFERENCE BETWEEN PUBLICLY INSURED AND PRIVATELY INSURED PATIENTS?

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ABSTRACT

Healthcare is one of society's top concerns, and public programs and laws have been enacted to provide healthcare access to more members of society. Consequently, it is now important to provide quality healthcare services to everyone who is entitled to it. While a considerable amount of research has been done on patient satisfaction, little research has been done that directly compares patient satisfaction between publicly insured and privately insured patients.

This study compared the level of patient satisfaction between publicly insured and privately insured emergency room patients at Methodist Hospital in Sacramento, California. Patient satisfaction was measured by administering a mail-out survey by Avatar International to patients after hospital discharge for the 2007 calendar year. Differences between the two groups were determined by comparing their mean scores on the survey and a regression analysis was used to determine which key areas best-predicted patient satisfaction. In addition, key informant interviews were conducted to look for triangulation between the primary interview data and the secondary survey data.

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INTRODUCTION

On the evening of August 10, 1996, a patient came into the emergency department (ED) at Doctor's Hospital in Houston, Texas with symptoms of acute appendicitis, which is considered a medical emergency. Upon discovering that the patient had no insurance, the hospital discharged the patient and told her to go to another hospital, where she ended up having surgery for her condition (Blalock & Wolfe, 2001, p. 17). Fortunately in this case, the patient was able to get treated for her emergency medical condition at the other facility without any dire outcomes. This case illustrates "patient dumping" (p. 2), where a hospital denies medical screening, treatment, or an appropriate transfer to an ED patient with an unstabilized medical condition.

The Emergency Medical Treatment and Labor Act, or EMTALA, prohibits the practice of patient dumping mentioned above. The EMTALA law prohibits hospitals from denying Emergency Department services to patients because of a perceived inability to pay (Centers for Medicare and Medicaid Services, n.d.). With access to ED services being expanded to more and more people, ED services are becoming more of a right than a privilege. As a result, it is important for hospital emergency rooms to start treating all patients with the same quality service because now everyone is entitled to good service.

The quality of ED services is commonly measured by studying ED patient satisfaction. In its broadest sense, ED patient satisfaction can be defined as the extent to which the patient's own expectations for treatment or care in the ED are met or exceeded (Trout et al., 2000, p. 705). The results from these ED patient satisfaction studies can then be utilized to develop quality improvement programs for ED healthcare services (Turnbull & Hembree, 1996). Legislative changes, financial prosperity, and organizational culture all contribute to the importance of ED patient satisfaction research and its role in the improvement of ED healthcare services.

Legislative Changes

The enactment of certain public programs and laws that provide healthcare access to more members of society are one reason why it is important to study ED patient satisfaction and provide better healthcare services to all people who are eligible. These programs are centered more on the person's well being than on whether or not they can afford to pay for their medical bills. For example, California's version of the federal Medicaid program, Medi-Cal provides essential healthcare insurance services for low-income individuals who meet certain guidelines (Medi-CAL, n.d.). It should be noted that publicly funded insurance programs such as Medi-Cal and Medicare (a publicly funded program for those over age 65) are becoming more prominent in California, where 18.7% of all Californians receive public health insurance benefits (California Healthcare Foundation, 2007, p. 5).

The EMTALA law, enacted in 1986, requires hospitals to provide emergency medical services including medical screening, stabilizing treatment, or appropriate transfer to all patients regardless of their ability to pay (CMMS, n.d.). The purpose of the

EMTALA legislation is to prevent patient dumping, where hospitals direct publicly insured or uninsured patients to other hospitals because of a perceived inability to pay for their services. Failure to comply with EMTALA also carries severe penalties for negligent hospitals and physicians. Hospitals that negligently violate an EMTALA requirement are subject to a civil monetary penalty of up to $50,000. Meanwhile, a violating physician who is responsible for an ED patient's exam, treatment, or transfer is also subject to a penalty up to $50,000. If the physician's violations are considered flagrant, or are repeated, the physician is subject to being excluded from participating in Medicare (Blalock & Wolfe, 2001, p. 30). Furthermore, the EMTALA law allows the Centers for Medicare and Medicaid Services to stop violating hospitals from participating in the Medicare and Medicaid programs, which is a severe penalty since most hospitals rely on Medicare and Medicaid for a significant part of their revenue (p. 29). Together, Medi-CAL and EMTALA demonstrate the importance of studying patient satisfaction research and improving ED services because ED services are becoming more of a right than a privilege.

Financial Prosperity

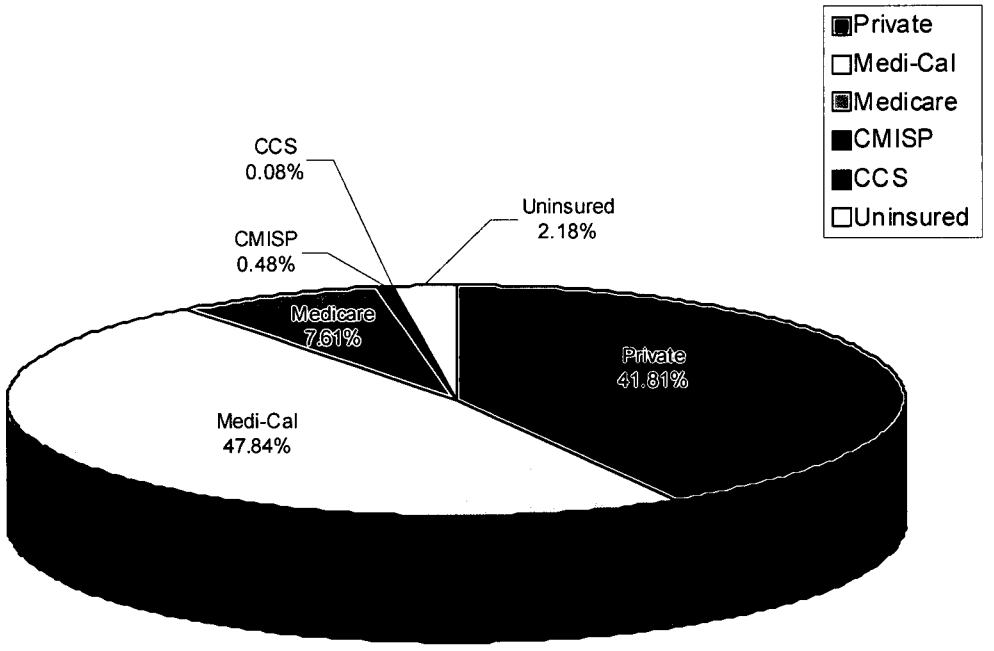
In addition to the legal reasons for studying ED patient satisfaction, there is also a financial component, meaning that better healthcare service in departments like the ED can generate more revenue for the hospital. Steiber and Krowinski (1990), point out that in order to stay competitive, healthcare providers must provide care that satisfies patients and ensures their return for services if the need arises. The authors take this point a step further by providing a mathematical model that calculates how much potential revenue a hospital loses due to dissatisfied patients taking their business elsewhere (p. 4). Given

that the average inpatient stay is 7.2 days with an average daily cost of $873.49 per patient, coupled with the figure that one in five households has an inpatient stay every year, a hospital loses out on $1,257.83 per year for every dissatisfied patient. While this figure does not sound like much, if you have a facility with 5,000 annual inpatient discharges and 12.2% of these patients do not return because of dissatisfaction with their healthcare services, this annual loss of $1,257.83 becomes $767,276.30. Furthermore, the authors point out that the hospital loses out on even more potential business when these dissatisfied patients tell others not to use the hospital's services. This example is based on 1990 figures, so if this model is applied to today's higher healthcare costs, those financial losses will be much greater. Consequently, this model demonstrates the importance of studying and increasing ED patient satisfaction in order to bring more patients back to the facility and generate more revenue.

Organizational Culture

Another reason why studying ED patient satisfaction is important has to do with organizational culture. The organization in this study, Methodist Hospital, is part of Catholic Healthcare West (CHW), a nonprofit healthcare system comprised of over 40 hospitals throughout the Southwestern United States. Moreover, Methodist Hospital is situated in the southern region of Sacramento, California and serves a primarily urban patient demographic that consists of mostly low-income, minority patients. Demographic data from Catholic Healthcare West Information Technology (2007) illustrates the patient demographics at Methodist Hospital. Figure 1 shows the insurance breakdown for the Methodist Hospital ED patient population in 2007 ($N = 44008$).

Figure 1. Insurance breakdown of Methodist ED population in 2007.



Publicly Insured: Shades of Blue 56.01%
Privately Insured: Red 41.81%
* **CCS:** California Children's Services .08%
* **CMISP:** County Medically Indigent Services Program .48%

Based on Figure 1, 56% of the 2007 ED patient population received some type of public assistance with health insurance through Medi-CAL, Medicare, County Medically Indigent Services Program, or California Children's Services. When compared to the proportion of all Californians receiving public health insurance, which is only 18.7% as of 2006 (California Healthcare Foundation, 2007, p. 5), Methodist Hospital serves a disproportionately higher percentage of publicly insured patients. Furthermore, Methodist Hospital also serves an ethnically diverse patient demographic as well. Figure 2 shows the race / ethnicity breakdowns for Methodist Hospital ED patients in 2007 ($N = 44008$).

Figure 2. Racial / ethnic breakdown of Methodist ED population in 2007.

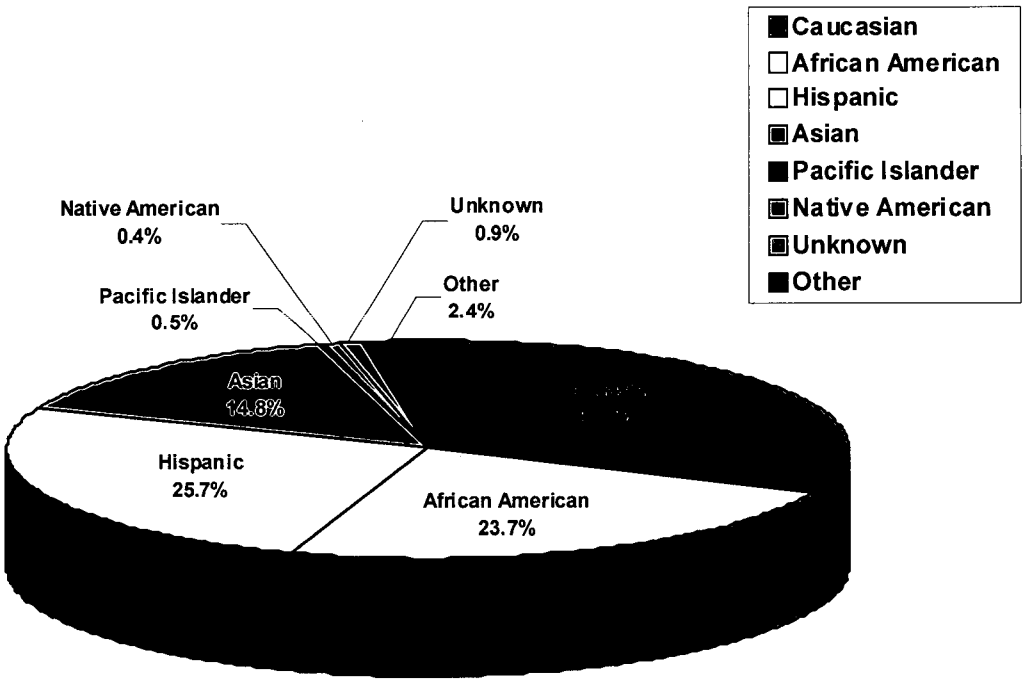


Figure 2 shows that Methodist's ED population primarily consists of minorities at 65%. These demographic figures show the importance of studying patient satisfaction to improve healthcare services for emergency room patients at Methodist Hospital, especially for publicly insured patients. Furthermore, providing quality ED services to the less fortunate falls in line with Methodist's mission statement, which states their dedication to "serving and advocating for our sisters and brothers who are poor and disenfranchised." (Methodist Hospital, n.d.).

Overview of Research

While there is a great amount of patient satisfaction research available, no research was found that directly focuses on comparing the level of patient satisfaction

between publicly insured and privately insured patients. The hypothesis for this research study stated that publicly insured patients would rate their level of satisfaction with ED patient services at Methodist Hospital lower than privately insured patients. This research study evaluated this hypothesis by analyzing the quantitative data collected from a patient satisfaction survey mailed to both publicly and privately insured patients after their discharge from the hospital. Avatar International, a third-party research company contracting with CHW, administered the surveys and provided the secondary data for the researcher to analyze (2007). The independent variable is the patient's insurance type, which classifies patients as either publicly insured or privately insured. The dependent variable is their score on the Avatar patient satisfaction survey. Furthermore, a regression analysis was performed to see which key areas on the survey predicted overall patient satisfaction. In addition, in-depth key informant interviews were conducted and a content analysis of the interview transcripts was performed to yield qualitative data. The quantitative and qualitative data findings were then compared to look for common themes and recommendations were made.

LITERATURE REVIEW

A review of the literature found no articles that directly compared the level of patient satisfaction between publicly and privately insured patients. However, several articles were located that were relevant to the research problem. These articles provided a wealth of information in three key areas of emergency department patient satisfaction including: implementing patient satisfaction programs, identifying key determinants in patient satisfaction, and examining the effects of patient demographics on patient satisfaction and access to healthcare. In addition to these three areas, there were sources

in the patient satisfaction literature that focused on ways to reduce bias in patient satisfaction research. The review of the literature examines each of these areas in further detail.

Implementing Patient Satisfaction Programs

The first area of ED patient satisfaction literature focuses on articles relating to the implementation of patient satisfaction programs. These articles illustrate the importance of developing and implementing programs that measure ED patient satisfaction and using these results to figure out which areas to focus on when making improvements. This area of the literature review has three main components: articles that illustrate the importance of ED patient satisfaction programs, articles that provide guidelines for implementing such programs, and articles that give specific strategies for improving patient satisfaction.

Importance of ED patient satisfaction programs. Worthington (2004) provided a wealth of information regarding the importance ED patient satisfaction research. The author suggests that hospitals should put a strong focus on ED customer service because the ED acts as the front door of the hospital (p. 99). The author states that many hospitals have focused on adopting customer satisfaction programs, administering patient satisfaction surveys, and mandating performance levels for each department (p. 87). Finally, Worthington points out several advantages of increased patient satisfaction such as better patient response to treatment, increases in staff morale, decreases in malpractice cases, and greater financial prosperity for the organization (p. 88).

Implementation guidelines. In addition to demonstrating the importance of measuring ED patient satisfaction, the literature also provides several articles that give

models for implementing patient satisfaction programs in the ED. Worthington (2004), in addition to stressing the importance of ED patient satisfaction, also developed a model for implementing a patient satisfaction program in the emergency department that focuses on the role of leadership, which is considered to be the key to implementing the program. The eight step model consists of: establishing goals, mandating specific behaviors, looking at problems as opportunities, rewarding staff rather than punishing, publishing results, removing staff against the program, solving problems with the entire team, and holding staff accountable (p. 95).

Boudreaux et al. (2006) also developed another implementation model for patient satisfaction, which consists of six steps (p. 796). The first step is creating a multidisciplinary team that defines the organization's desired performance level. The second step is identifying performance gaps by measuring actual performance and comparing it with the levels established by the previous step. The third step is identifying the cause for the performance gaps. The fourth step is generating a list of interventions targeting the causes for the gaps in performance. The fifth step is implementing these interventions. Finally, the last step is measuring the changes in performance after the interventions are implemented to see if there is any improvement. This model is similar to the approach taken by CHW and Methodist Hospital when measuring patient satisfaction in the emergency department.

Improvement strategies. The third area in the literature on patient satisfaction program implementation deals with studies that reveal specific strategies for improving patient satisfaction. These strategies include recommendations for improving satisfaction as well as suggesting which aspects of care are linked to increased patient satisfaction.

Boudreaux et al. (2006, p. 800) brought up two recommendations for improving satisfaction, which include providing patients with information about ED processes and procedures and improving provider communication and customer service skills through training programs. Bruce et al. (1998, p. 36) made several recommendations to improve patient satisfaction such as taking time to explain the procedure to the patient, responding to the patient's questions and concerns, letting patients know that they are being monitored carefully, and increasing staff's visibility to the patient.

In addition to the recommendations for improving satisfaction, the implementation literature suggests which aspects of care are associated with increased ED patient satisfaction. These aspects all focus on the relationship between the caregiver and patient. For example, Brown et al. (2005) found that the four strongest predictors of overall ED patient satisfaction were perceived waiting time to receive treatment, courtesy of nursing staff, courtesy of the physicians, and thoroughness of the physician (p. 3). The Thompson et al. (1996) study mirrors these findings as well, stressing that managing waiting time perceptions, professional physician attitude, and physician courtesy are all associated with increased patient satisfaction (p. 664). These findings provide valuable insights as to which specific areas can be improved upon in order to increase ED patient satisfaction. The following section goes into identifying key predictors of ED patient satisfaction in much greater detail.

Key Determinants in Patient Satisfaction

The second area of the patient satisfaction literature review focuses on studies that identify the key determinants of patient satisfaction in the emergency department. These studies expand on the patient satisfaction improvement strategies mentioned in the

previous section. Furthermore, these studies provide great insight as to which areas of patient satisfaction Methodist Hospital should focus on. For instance, an analysis of several emergency department patient satisfaction studies conducted by Trout et al. (2000, p 698-701) reveals that there are three broad areas of key determinants in ED patient satisfaction including: communication, which consists of providing information and explanations to the patients and their families; staff courtesy, which consists of the courtesy, caring, and attention that staff shows to patients; and perceived waiting time, which is the patient's perception of their waiting time experience as opposed to their actual waiting time. Several other studies in the ED patient satisfaction literature supported the findings of the Trout et al. (2000) study by yielding similar results and providing even greater detail in breaking down the three key determinant areas of communication, staff courtesy, and perceived waiting time.

Communication. The first broad key determinant of ED patient satisfaction that will be discussed is communication. The literature suggests that when there is an increased level of communication between the patient and hospital staff, there is a corresponding increase in patient satisfaction. Conversely, when lines of communication between patient and staff are broken, patient satisfaction decreases. A recent study by Bernard et al. (2007) found that the most important contributor to patient satisfaction is interpersonal communication between patients and hospital staff.

Further analysis of the ED patient satisfaction research goes on to reveal several specific predictors of patient satisfaction that fall under the broader area of communication. Bursch et al. (1993, p. 589) found that overall satisfaction with the ED is linked to the amount of information nurses give patients regarding their care. Next, a

study done by Bruce et al. (1998) stresses that patients are more satisfied when they get information that is easy to understand in a timely manner (p. 31). Mirroring this aforementioned study, Boudreaux et al. (2004) also found that easy to understand discharge instructions predicted overall ED patient satisfaction. Finally, Thompson et al. (1996, p. 657) found that satisfaction with information delivery predicted overall satisfaction as well.

Staff courtesy. The second broad key determinant of ED patient satisfaction that will be discussed is that of staff courtesy. Again when ED physicians, nurses, and staff are more courteous to the patients, there is higher patient satisfaction. The literature also reveals several specific predictors of patient satisfaction related to staff courtesy. Two predictors of overall ED satisfaction include patient's ratings of how caring the nurses were and how caring the physicians were (Bursch et al., 1993, p. 589). Another predictor mentioned in the literature is the degree to which staff cares about the patient as a person (Boudreaux et al., 2004, p. 399). Bruce et al. (1998, p. 31) identified several predictors of ED patient satisfaction that fall under staff courtesy including the way nurses showed compassion, nurse patience, and nurse friendliness. Moreover, Thompson et al. (1996, p. 664) found that physician courtesy, friendliness, and professional attitude predicted overall satisfaction.

Perceived waiting time. The third and final broad key determinant of ED patient satisfaction that will be discussed is perceived waiting time in the emergency department. This determinant emphasizes the difference between the waiting time perceived by patients and the actual waiting time. Studies by Brown et al. (2005), Rhee & Bird (1996), and Thompson et al. (1996) all found that shorter than expected waiting times predicted

higher overall ED satisfaction. Moreover, Sun et al. (2000, p. 426) found that overall satisfaction was lower for patients who had longer than expected waiting times because they were not told about potential waiting times. Worthington (2004, p. 98) went on to say that dissatisfaction with waiting times can be reduced greatly, even if the actual time itself is not reduced, just by keeping the patients well informed.

The Effects of Patient Demographics on Healthcare Access and Patient Satisfaction

The final area of the literature focuses on the effects that patient demographics - such as insurance type, race, and ethnicity - have on ED utilization, access to healthcare, and patient satisfaction. As noted earlier, the EMTALA law makes access to stabilizing care in the Emergency Department more of a right than a privilege, justifying the importance of studying patient demographics and their effects on healthcare. The literature focuses on examining whether or not patients who are labeled as minorities and/or publicly insured have different experiences with regards to ED utilization, access, and patient satisfaction compared to those who are considered non-minorities and/or privately insured. Examining patient satisfaction by race/ethnicity and insurance type is relevant to the hospital observed in this study, Methodist Hospital, because 65% of the ED patients are minorities and 56% are publicly insured.

ED utilization and demographics. One of the key areas in this section of the literature review deals with the utilization of the ED for publicly insured patients. The literature suggests that patients with public insurance are more likely to use the ED for non-emergency medical treatment because of a perceived lack of access to healthcare (Galbraith et al., 2004, p. 509). This finding is particularly important because when patients are using the emergency department for non-emergency issues, the hospital gets

bogged down and its capacity to deal with patients with real emergencies is strained. Consequently, it is in a healthcare organization's best interests to find ways to lower ED use by publicly insured patients with non-emergencies who use the ED in a manner similar to a primary care facility.

Two studies focus on programs that were designed to reduce ED utilization by these patients. A study by Smith-Campbell (2000) showed that when a small nonprofit healthcare system for the medically underserved in the state of Kansas, Health Care Access (HCA), started receiving more state funding under a new state policy, the patients who were enrolled in the HCA program started to obtain primary care through HCA as opposed to emergency departments. After three years, there was a 40% decrease in ED visits by uninsured patients who were enrolled in the HCA program (p. 295). In addition, Baker & Afendulis (2005) yielded similar results in their study on Medicaid managed care programs that were expanded to manage patient care and improve costs. The authors found that an increased enrollment in these Medicaid programs led to lower ED use by patients who were enrolled (p. 1468).

ED access and demographics. The next area in this section of the literature review deals with the effects patient demographics have on access to healthcare. Again, the EMTALA law makes it unlawful to deny ED healthcare to any patient regardless of race or perceived inability to pay. However, recent studies show that minorities and publicly insured patients still face barriers when it comes to access to healthcare. Weech-Maldonado et al. (2003) found that racial minorities and non-English speaking minorities perceived greater barriers to healthcare than white-English speaking patients, even after financial access is assured by Medicaid. The authors went on to recommend that hospitals

should create a more culturally diverse workforce and establish interpreter services to help break down these perceived healthcare barriers (p. 803). Moving on, Woolhandler & Himmelstein (2007) reported that for-profit hospitals and Health Maintenance Organizations focus on attracting healthier patients with lower healthcare costs, leaving non-profit and public hospitals with publicly insured and less healthier patients who are considered unprofitable (p. 1128). The findings of these two articles are startling and demonstrate the need to focus on increasing access to healthcare for everyone, as opposed to just trying to turn a profit.

Patient satisfaction and demographics. The final area in this section of the literature review deals with the level of satisfaction between patients of differing demographic groups with regard to race and insurance type. In the Weech-Maldonado (2003) study mentioned earlier, while there were racial differences with regard to healthcare access, the authors found that the levels of patient satisfaction between minorities and non-minorities (whites) were similar (p. 802). A study by Hunt et al. (2005) yielded results that are in direct contrast to the research hypothesis in this study. While this study hypothesizes that publicly insured patients will report lower patient satisfaction scores than privately insured patients, the Hunt et al. (p. 572) study reported that Medicaid beneficiaries reported a higher level of patient satisfaction than non-Medicaid beneficiaries. However, their findings are not comparable to this study's findings because the non-Medicaid group in their study included another publicly insured group, those under Medicare. The mixed results from these various studies warrant further research examining the differences in patient satisfaction between publicly and privately insured groups.

Potential Sources of Bias

In addition to the three areas of the ED patient satisfaction mentioned above, Aharony and Strasser (1993) pointed out several sources of potential bias specific to patient satisfaction research (pp. 55-57). The authors identified nonrespondent bias as one potential source of bias, where survey nonrespondents are demographically different from respondents and typically rate their satisfaction lower than respondents. Aharony and Strasser also reported method of survey administration as another potential source of bias. The authors cited the work of Walker and Restuccia (1984), which found that telephone surveys typically had higher response rates and higher mean response scores than mail-out questionnaires. Moreover, Walker and Restuccia found that nonrespondents were more likely to be minorities, which is significant to this study since the majority of Methodist Hospital's ED patients are minorities (see Figure 2). Aharony and Strasser went on to identify incentives as another possible source of bias in patient satisfaction research. Aharony and Strasser cautioned against the use of incentives to increase response rates because incentives may cause respondents to complete the survey out of guilt or to fill it out carelessly in order to justify their incentive. Finally, Aharony and Strasser pointed out the potential bias in the way questions are formatted. They stressed the importance of using both negatively and positively worded questions in order to ensure that patients are paying attention to the questions. The findings from this article were useful for this study because they uncovered potential biases in patient satisfaction research, and the study was designed with these biases in mind to minimize these sources of error.

Summary of Literature Review

The review of the literature revealed three broad areas in ED patient satisfaction research: implementing patient satisfaction programs, identifying key determinants in patient satisfaction, and examining the effects of patient demographics on patient satisfaction. In addition, research identified several potential sources of bias in patient satisfaction research. However, there are still no studies that directly focus on comparing the ED patient satisfaction of publicly and privately insured patients.

The literature review also helped the researcher identify five key areas of patient satisfaction for this study: nursing care, physician care, waiting time perception, staff courtesy, and communication. In addition to these key areas, the literature also provided a model for research design, which included the use of a likert-type scale to measure patient perceptions and ways to avoid bias. Finally, many of the research studies in the literature review utilized global questions like overall satisfaction and willingness to recommend the facility, which were used to find out which areas of service predicted patient satisfaction through regression analysis. These areas of the literature helped form the basis for this study's hypothesis, research questions, and methodology.

METHODOLOGY

This study measured the differences in the level of patient satisfaction between publicly insured and privately insured emergency department patients at Methodist Hospital. The target population for this study included Methodist Hospital ED patients who visited the ED in the 2007 calendar year. This study hypothesized that publicly insured patients would rate their level of patient satisfaction with ED services at Methodist Hospital lower than privately insured patients. The level of patient satisfaction

was measured by scoring the patients' responses to a mail-out patient satisfaction survey administered by Avatar International, a third-party research company contracting with Methodist Hospital. In addition, a stepwise regression was used to determine which key areas of the Avatar survey were the strongest predictors of patient satisfaction for both publicly and privately insured groups. Finally, in-depth key informant interviews were conducted and a content analysis of the interview transcripts was performed to yield descriptive data. This study utilized both primary data collection through key informant interviews and secondary data collection through the Avatar survey. The primary data collection yielded qualitative data while the secondary data collection yielded quantitative data. Finally, the primary and secondary data were analyzed and compared to look for any evidence of triangulation, where multiple data sources converge toward similar conclusions (Leedy & Ormrod, 2005, p. 99). The following model was utilized to gather and analyze the data.

Participants

The participants for the secondary Avatar survey research consisted of ED patients at Methodist Hospital who visited the ED during the 2007 calendar year. ED patients who were later admitted to the hospital or left the ED without being seen were excluded from the study. It should be noted that Institutional Review Board (IRB) clearance is not necessary at Methodist Hospital for studies that merely seek patient opinions, such as in this study. An IRB review is only necessary for research projects where participants are actually given some sort of medical treatment or intervention.

As for the primary interview research, three key informants from various backgrounds were interviewed for their insights and opinions regarding insurance type

and ED patient satisfaction. The first patient interviewee was an uninsured Asian male in his mid-20s who visited a Southern California ED following a motorcycle accident in October 2007. The second patient interviewee was an Asian male insured under Medi-Cal in his early-50s who visited the Methodist ED for chest pains in September 2008. The Methodist Hospital staff interviewee was a female ED manager.

Sampling

The sampling process for the secondary survey research data was influenced by several factors. Being a healthcare organization, CHW and Methodist Hospital must deal with several legal and organizational roadblocks when conducting patient satisfaction research. One legal roadblock is the Health Insurance Portability and Accountability Act, known as HIPAA, enacted in 2003. The act gives patients an increased level of privacy regarding any personal health information by making healthcare organizations and employees follow stricter guidelines when disclosing personal health information (United States Department of Health & Human Services, 2003). Failure to do so results in civil and/or criminal penalties for the organization and its employees. As a result, any information that can possibly reveal a patient's identity - including names, addresses, and medical record numbers - has purposefully been left out of this study in order to meet HIPAA guidelines.

Furthermore, CHW has record exclusion criteria limiting which patients are eligible to receive mail-out surveys (See Appendix A). These exclusions prevent certain patients - such as those who are deceased, mentally ill, or have sensitive diagnoses like an STD – from being sampled in patient satisfaction surveys. The record exclusion criteria are set forth to prevent any legal disputes that can occur from HIPAA violations or other

legal issues. In addition, the Methodist ED distributes the Avatar survey to ED patients every other day in unison with a separate physician satisfaction survey.

After filtering the necessary exclusions from the patient sampling list, CHW Information Technology sends the updated sampling list to Avatar. From there, Avatar uses a systematic sampling method in order to provide a sample that is representative of the target population of Methodist ED patients (O'Sullivan et al., 2003, p. 139). Avatar administers the mail-out survey to every nth patient from the list, with the value of n depending on the size of the sampling list. For example, larger sampling lists bring forth a larger n value. While this does not constitute true random sampling, this systematic sampling method helps minimize selection bias despite the legal and organizational sampling restraints of this study.

The participants were chosen for the key informant in-depth interviews via purposeful sampling, where individuals who can yield the most information about a topic are selected (Leedy & Ormrod, 2005, p. 145). The participants were chosen to add a qualitative aspect to the study and add a level of response depth that cannot be obtained by filling out a questionnaire. The participants provided a broad range of perspectives and insights regarding insurance type and patient satisfaction in the ED. The patients were chosen because they represented two perspectives from the patient side of patient satisfaction, the uninsured patient's point-of-view and the Medi-Cal patient's point-of-view. Conversely, the ED manager was chosen to give insights from the caretaker's perspective on patient satisfaction.

Apparatus

Two types of data collection instruments were used in this study to gather both primary and secondary research data. The first instrument yielded quantitative secondary survey research data from Avatar International, a third-party patient satisfaction research group under contract with CHW and Methodist Hospital. The second instrument yielded qualitative primary research data via key informant in-depth interviews with ED patients and ED management. These primary and secondary data collection techniques gathered a wide range of information relating to patient satisfaction in the Methodist Hospital ED (O'Sullivan et al., 2003, pp. 189-193).

Avatar survey. The data collected from the secondary research utilized a survey developed by Avatar International to measure the patients' level of satisfaction with their emergency room visit (see Appendix B). The Avatar survey consisted of the cover letter and the patient satisfaction questions. The first section of the questionnaire, the cover letter, played an important role in ensuring the patient's participation in the survey by grabbing their attention. The cover letter included the identity of the company, the nature of the study, the benefit of the study to the participant, and the instructions for completing the survey.

The second section of the questionnaire consisted of the actual patient satisfaction questions. The question response format was a Likert-type scale with 5 responses including: Strongly Agree, Slightly Agree, Neither Agree Nor Disagree, Slightly Disagree, and Strongly Disagree (O'Sullivan et al., 2003, p.300). In addition, a not applicable "N/A" response was added for questions that did not apply to the respondent.

Furthermore, global satisfaction questions, such as overall satisfaction and willingness to recommend the hospital to others, were also included.

The actual questions in the patient satisfaction survey were based on Avatar's past experience with customer service research, including patient focus group results and input from hundreds of healthcare managers. Furthermore, Avatar conducts their own psychometric analysis each year to refine their questions even more in order to increase internal validity and ensure that the survey accurately measures patient satisfaction (Avatar International, 2005, p. 45). Avatar's survey design and survey content falls in line with the literature on patient satisfaction research. For one, they use a likert-type scale for ease in quantifying data. Next, the actual content of their questions includes the central key areas of this study including nursing care, physician care, waiting time perceptions, staff courtesy, and communication. Finally, they utilize global satisfaction questions that ask respondents to rate their overall satisfaction and willingness to recommend the facility to others. These global questions allow for a regression analysis to determine what areas or items in the survey are strong predictors of patient satisfaction (Nauman & Giel, 1995, p.135). It should be noted that while there are 71 items in the Avatar question bank (See Appendix C), only 47 items are chosen at random for each patient questionnaire that is administered. Avatar cycles the questions chosen so that each respondent does not have to answer all 71 questions. When the data is collected, the large sample sizes for each question help minimize bias.

Key informant interviews. The primary research data for the study was gathered by the use of an open-ended in-depth interview for the key informants in the subject area of patient satisfaction. The interviews were open-ended in order to gain insights and

opinions that cannot be captured by a closed-end survey (Leedy & Ormrod, 2005). There were two types of interviews conducted - one for ED patients and another for hospital staff - each with a set of questions that were better suited to the intended interviewee's perspective (see Appendix D). Both interviews asked the respondents questions about what aspects increased patient satisfaction and what aspects needed to be improved upon. For example, the staff interview asked questions about the staff's perspective including:

- How would you define patient satisfaction? Can you go into detail?
- What are some aspects that your department focuses on with regard to patient-staff interaction? Can you elaborate?
- Do you believe that all patients have adequate access to the ED's services and facilities? Can you go into detail?

The same questions were asked to the patient respondents but from the frame of reference of the patient. However, the staff interview included a demographics section that asked the respondents about the number of patients that use the ED each month, the ethnic breakdown of patients, and the insurance breakdown.

Administration

Avatar International administered the patient satisfaction surveys to Methodist ED patients following discharge from the ED from January 2007 to December 2007. The year long survey process minimizes any seasonal biases that can occur when surveys are administered over shorter time frames (O'Sullivan et al., 2003, p. 34). Avatar utilized mail-out surveys sent two weeks after the patient's ED visit to ensure that the patient's memory of their ED experience was still fresh. Follow-up mailings were conducted in order to increase response rates. The advantage with using the mail-out surveys is that respondents are more likely to tell the truth because of greater anonymity (Leedy &

Ormrod, 2005, p. 185). However, the drawback is the non-respondent bias brought up by Aharony & Strasser (1993), where survey non-respondents may be demographically different from respondents and typically rate their satisfaction lower than respondents.

Meanwhile, the key informant interviews were administered face-to-face between the researcher and the respondent. The interviewees were asked to sign a consent sheet to participate in the research that contained an introduction to the study along with the interview questions. Furthermore, the interviewees were assured that their identities would remain anonymous. A voice recorder was used to record the interviews in order to allow the researcher to review each interview in its entirety. The face-to-face interaction allowed the researcher to establish a good rapport with each of the three respondents (Leedy & Ormrod, 2005). Moreover, the respondents were asked probing questions, such as how and why, in order to get a more in-depth understanding of their experience with ED patient satisfaction.

Data Analysis

The key to this research study's secondary data analysis was linking the secondary survey data file provided to the researcher by Avatar (2007) with a separate demographic data file provided to the researcher by the CHW Information Technology Department (2007). Avatar only reports patient satisfaction scores by department. However, Avatar does not analyze patient satisfaction data by demographic groups such as sex, gender, insurance type, etc. The Avatar data was linked with the CHW demographic data by a unique patient visit number located on the bottom of the Avatar survey. This number was matched up with the patient visit number in the demographic data file and this allowed the researcher to group the respondents into publicly and

privately insured patient groups. In addition, the demographic file also gave the respondents' age and ethnicity. Linking the Avatar file with the CHW demographic file also increased the accuracy of classifying patient insurance type. The CHW file is linked to the billing department so the patient insurance type is more accurate than simply having patients self-report their insurance type on the actual survey.

However, several precautions must be taken to ensure that the research does not violate the HIPAA law discussed earlier, which limits how much patient information can be obtained and released by CHW employees (USDHHS, 2003). To prevent this, as soon as the patient satisfaction data and the demographic data were linked via patient visit number, any patient identifiers such as patient names and medical record numbers were deleted from the database in order to protect patient privacy and comply with HIPAA.

Calculating aggregate mean satisfaction scores. For the secondary patient satisfaction survey research, the average mean patient satisfaction scores of publicly and privately insured patients on the patient questionnaire were compared to see if publicly insured patients scored significantly lower than privately insured patients. For the purposes of this study, a publicly insured patient included any patient who received some type of public funding to help pay for their healthcare. As a result, all patients with any type of public insurance assistance in the insurance field in the demographic data file were classified as publicly insured patients. Patients with self-paid or private insurance in the insurance field were classified as privately insured. Uninsured patients were excluded from the data analysis. Furthermore, because of the flexibility allowed by using the demographic file, the respondents were broken down even further with regard to public insurance type. The demographic file allowed the researcher to group the patients into

privately insured, Medi-Cal, and Medicare insurance groups for even deeper data analysis.

Each patient's individual patient satisfaction score was calculated in SPSS by adding up their normalized scores for each question on the survey and then calculating the mean of these normalized scores. The scales for the negatively worded items were reversed accordingly. The high score of 5 for each question indicates greater patient satisfaction while the low score of 1 represents lower satisfaction. The scoring goes as follows: 5= Strongly Agree, 4= Slightly Agree, 3= Neither Agree Nor Disagree, 2= Slightly Disagree, 1= Strongly Disagree. In order to normalize the scores into a 100 point scale, the numeric values mentioned above were converted in SPSS as follows: 5= 100, 4= 75, 3= 50, 2= 25, 1= 0. So if a patient scores a 5 for all patient satisfaction questions on the survey, their individual aggregate patient satisfaction score will be 100 and this represents the highest level of patient satisfaction. Conversely, an individual patient satisfaction score of 0, where a 1 was scored for each question, represents the lowest level of patient satisfaction. Thus, the higher the patient satisfaction score, the greater the level of patient satisfaction.

Statistical analysis. After the calculation of each individual's patient satisfaction score, the individuals were grouped into publicly insured and privately insured groups and each group's patient satisfaction scores were calculated. A one-tailed t-test was used to determine if the average patient satisfaction score of publicly insured patients was significantly lower than the average score of privately insured patients (O'Sullivan et al., 2003, p. 370). Furthermore, when the respondents were grouped into privately insured,

Medi-Cal, and Medicare insurance groups, an analysis of variance (ANOVA) was used to see if there were significant differences between these three group means.

In addition to comparing group means, a stepwise linear regression analysis was performed on both publicly insured and privately insured research groups to determine which key areas of the Avatar survey were the best predictors of overall satisfaction and willingness to recommend for each group (Nauman & Giel, 1995, p. 135). Based on the literature review, three key areas of patient satisfaction were identified as predictors of patient satisfaction: Nursing Care, Physician Care, and Waiting Time Perception. Each of the three key areas emphasized communication and staff courtesy. Each key area was comprised of several related questions from the patient satisfaction survey (See Appendix C). These key areas were then worded as research questions for the purposes of this study:

- Is Nursing Care a strong predictor of ED patient satisfaction?
- Is Physician Care a strong predictor of ED patient satisfaction?
- Is Waiting Time Perception a strong predictor of ED patient satisfaction?

Each question was answered by the use of a stepwise linear regression to see which key areas of the Avatar survey were the best predictors of the global items of overall satisfaction and willingness to recommend. This classified the predictors of patient satisfaction into four groups: predictors of overall satisfaction for publicly insured patients, predictors overall satisfaction for privately insured patients, predictors of willingness to recommend for publicly insured patients, and predictors of willingness to recommend for privately insured patients. Key areas that appeared in the top five predictors in three or more of these four groups were classified as strong predictors of

patient satisfaction. Key areas that appeared in the top five predictors in one or two of these four groups were classified as moderately strong predictors of patient satisfaction. Key areas that did not appear in the top five predictors in any of the four groups were not classified as strong predictors of patient satisfaction.

The Avatar survey groups its 71 questions into 20 key areas of patient satisfaction (See Appendix C). After examining each key area, the questions from the key area of ER Expectations (questions 407, 409, and 411) were excluded from the stepwise regression. These biased items were leading questions that looked to elicit favorable responses from the respondents. In addition, the key areas of Overall Satisfaction and Key Results were also excluded because these items acted more like outcome variables than predictors of patient satisfaction. After the exclusions were made, there were 17 key areas remaining for the stepwise regression, including Nursing Care, Physician Care, and Wait Time Perception.

Content analysis. For the primary research, the key informant depth interviews were subjected to a content analysis in order to pull out common themes between the interviewee responses and the study's hypothesis and research questions. Furthermore, the responses between patients and staff were compared to look for any key similarities or differences regarding their views on patient satisfaction. The results from both the secondary survey research and the primary depth interviews were compared to find any evidence of triangulation, where multiple sources of data converge on a particular hypothesis (Leedy & Ormrod, 2005, p. 99).

RESULTS

The primary and secondary research methods yielded the following results. The secondary Avatar data collection method yielded a demographic breakdown by insurance type as well as mean patient satisfaction scores for both publicly and privately insured groups. In addition, the quantitative Avatar data allowed the researcher to perform an independent samples t-test to compare the patient satisfaction scores of public and private insurance groups and to run a stepwise linear regression to determine which key areas of the Avatar survey were the strongest predictors of patient satisfaction. Meanwhile, the primary key informant interviews provided qualitative data that provided opinions and insights that cannot be captured by survey data.

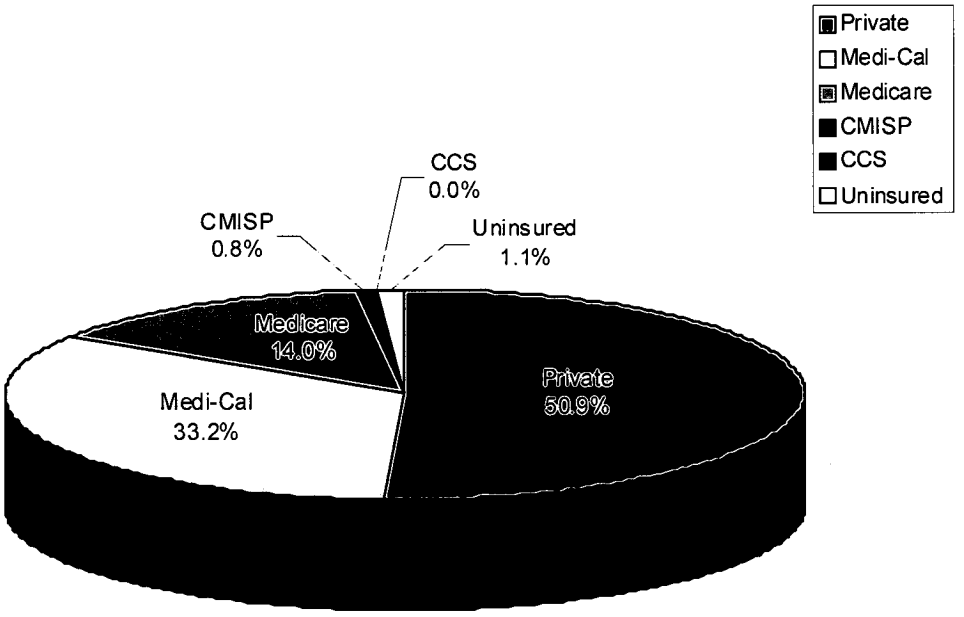
The linking of the demographic file from the CHW Information Technology department to the Avatar data file gave the researcher a great deal of flexibility in manipulating the research data in the SPSS statistical program. Combined with the demographic data, the Avatar data file allowed the researcher to exclude certain questions from the study. For example, questions 323 and 4049 from the Avatar item bank (see Appendix C) did not have any responses, so those two items were deleted from the database. In addition, the biased questions – questions 407, 409, and 411 – from the Avatar key area of Expectations (see Appendix C) were also deleted because the wording of these items elicited favorable responses.

Demographics

The Avatar data yielded a sample of 1669 respondents from 9171 mailed out ED patient satisfaction surveys for an 18.2% response rate. This is a reasonable response rate for ED mail-out surveys in the state of California, which typically have response rates

between 18 – 22% (C. Devlin, personal communication, October 16, 2008). The insurance breakdown of the Avatar sample shows that the sample is representative of the 2007 Methodist ED population.

Figure 3. Avatar survey respondents by insurance type.



Publicly Insured: Shades of Blue 48.0%
Privately Insured: Red 50.9%
Uninsured: Yellow 1.1%

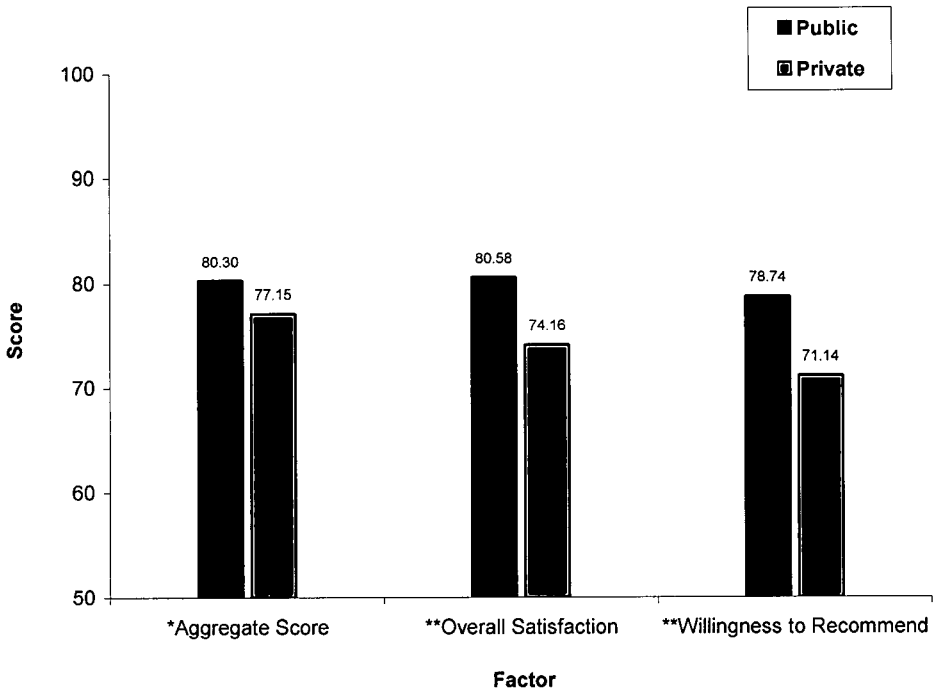
Figure 3 shows that 48.0% of the Avatar respondents were publicly insured while 50.9% were privately insured. These figures differed slightly from the 2007 ED population shown in Figure 1, where 56.0% were publicly insured and 41.8% were privately insured. The proportion of privately insured (50.9%) and Medicare respondents (14.0%) were higher in the Avatar sample compared to the overall ED population, 41.8% and 7.6% respectively. Conversely, the proportion of Medi-CAL patients (33.2%) was lower in the

Avatar sample compared to the overall ED population (47.8%). These findings show that a higher proportion of privately insured and Medicare patients responded to the Avatar survey compared to the Methodist ED population. Conversely, a lower proportion of Medi-CAL patients responded to the Avatar survey compared to the ED population.

Mean Patient Satisfaction Scores

The mean patient satisfaction scores for the Avatar survey were calculated in SPSS and the means for the publicly and privately insured groups were produced.

Figure 4: Patient satisfaction scores by insurance type.

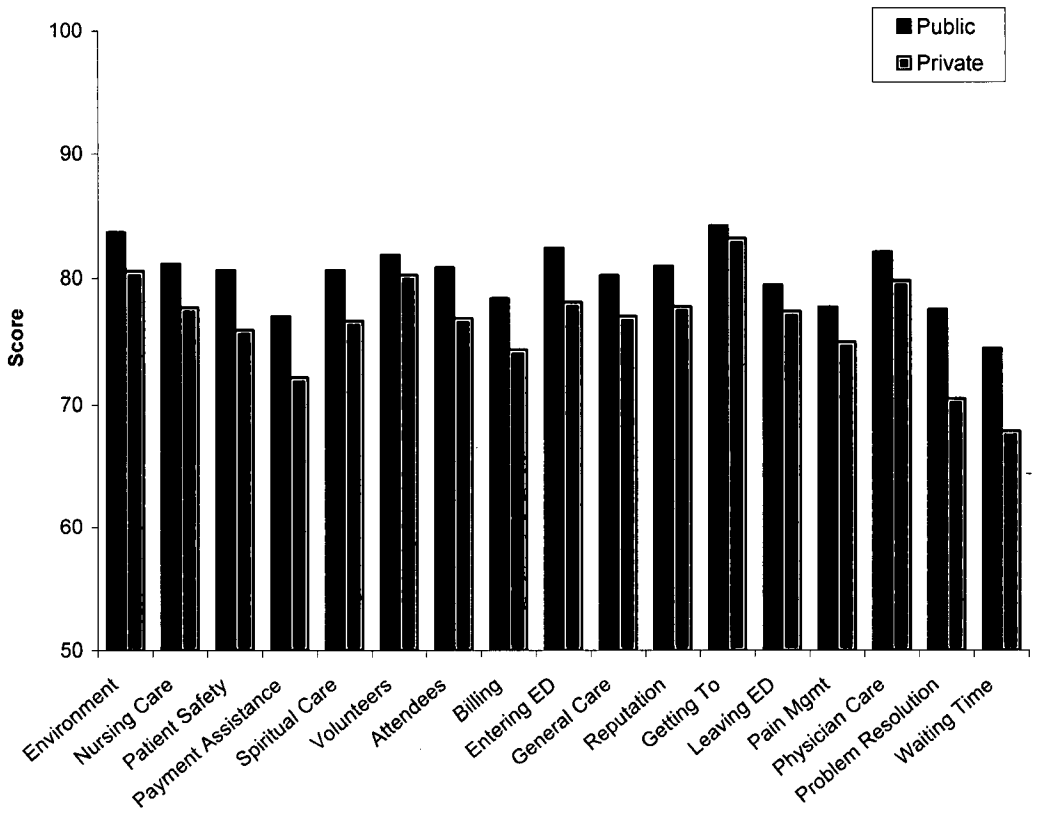


* **Aggregate Score** - total mean satisfaction score for all items on the Avatar Survey. Excludes Global Questions.
* ***Global Questions** which will be used for regression analysis.

Figure 4 shows that the publicly insured group had higher mean patient satisfaction scores across the board. For this study's dependent variable, aggregate mean satisfaction

score, the publicly insured group scored an 80.30 (SD = 23.89, N = 794) compared to 77.15 (SD = 23.39, N = 842) for the privately insured group. For the global satisfaction question of overall satisfaction, the publicly insured group scored an 80.58 (SD = 32.10, N = 775) while the privately insured group only scored 74.16 (SD = 35.92, N = 830). Finally, the publicly insured group scored a 78.74 (SD = 31.97, N = 749) on the global satisfaction question of willingness to recommend while the privately insured group scored a 71.14 (SD = 36.12, N = 790). These findings are in direct contrast to the research hypothesis, which stated that publicly insured patients would rate their satisfaction lower than privately insured patients.

Figure 5. Aggregate satisfaction score by key area for public and private groups.

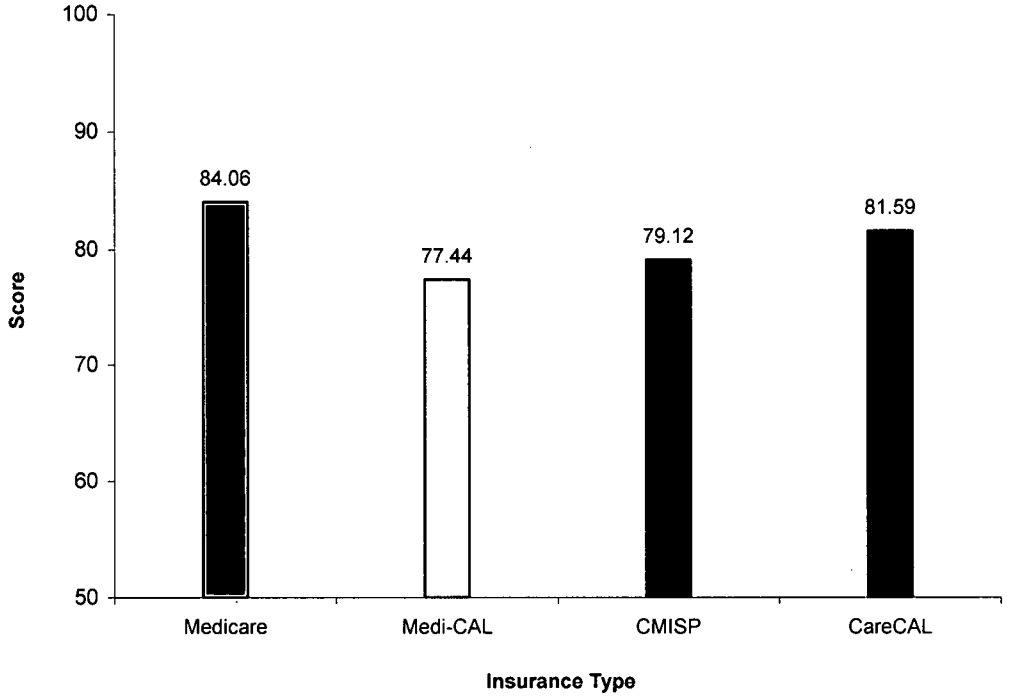


Key Area: Sets of questions grouped together under a common theme

The difference in the level of patient satisfaction between public and private insurance groups is further exemplified when breaking down each group's aggregate mean satisfaction scores into the 17 key areas. Figure 5 shows that the publicly insured group had higher aggregate satisfaction scores than the privately insured group across the board for all 17 key areas of patient satisfaction.

Since the Avatar data was linked to the CHW demographic file, the researcher had a great deal of flexibility when manipulating the data in the SPSS program. The researcher broke down the publicly insured group by specific public insurance types in order to study the differences between the public insurance groups in further detail. The public insurance group was broken down into Medicare, Medi-Cal, CMISP, and CareCAL (Patients receiving both Medicare and Medi-Cal Benefits) and the following results were obtained. Figure 6 shows that the Medicare group, or publicly insured patients over the age of 65, had a higher mean aggregate patient satisfaction score (M = 84.06, SD = 20.89, N = 231) than all of the other publicly insured groups. The Medi-Cal group scored the lowest of all the publicly insured groups at 77.44 (SD = 25.30, N = 377). The scores for the CMISP and CareCAL insurance groups were dropped from further analysis because of their low sample sizes, 13 and 19 respectively.

Figure 6. Patient satisfaction scores by public insurance type.



*** Aggregate Score** - total mean satisfaction score for all items on the Avatar Survey. Excludes Global Questions.
**** CMISP** - County Medically Indigent Services Program.
**** CareCAL** - Patients covered by both Medi-CAL and Medicare.

Statistical Analysis

Research Hypothesis: Publicly insured patients will rate their level of satisfaction lower than privately insured patients. The findings from the Avatar data were subjected to an independent samples t-test in SPSS to determine if there was a significant difference between the mean aggregate patient satisfaction scores of publicly and privately insured patients. The results show that the mean satisfaction score of the publicly insured group (M = 80.30, SD = 23.89) is significantly higher than the privately insured group (M = 77.15.30, SD = 23.39), (t = -2.69, df = 1634, p<. 05). This finding is in direct contrast to the research hypothesis.

As mentioned in the previous section, the breakdown of the publicly insured group into specific public insurance types found that Medicare patients had higher mean patient satisfaction scores than both privately insured and Medi-Cal patients. This finding warranted the use of a one-way analysis of variance (ANOVA) in order to determine if these group differences were statistically significant. The CMISP insured group was excluded due to low sample size and the CareCAL group was excluded because of its confounding nature, consisting of patients with both Medicare and Medi-Cal insurance benefits. The ANOVA found that there was a significant difference between the three groups, $F(2, 1447) = 8.18$, $p = .000$. In order to test if the Medicare group scored significantly higher than the Medi-Cal and privately insured groups, two independent samples t-tests were performed. The first test found that the Medicare ($M = 84.06$, $SD = 20.89$) group scored significantly higher than the Medi-Cal group ($M = 77.44$, $SD = 25.30$), ($t = 3.34$, $df = 606$, $p < .01$). The second test found that the Medicare ($M = 84.06$, $SD = 20.89$) group scored significantly higher than the privately insured group ($M = 77.15$, $SD = 23.39$), ($t = -4.07$, $df = 1071$, $p < .01$). The statistical analyses performed suggest that Medicare patients rate their level of satisfaction significantly higher than Medi-Cal and privately insured patients.

In addition to testing mean patient satisfaction scores for publicly and privately insured patients, a stepwise linear regression was utilized to determine which key areas of the survey were the strongest predictors of patient satisfaction. This analysis was ran for both publicly and privately insured patients for the overall satisfaction and willingness to recommend items and the following results were obtained.

Table 1

Stepwise Regression Results for Strongest Predictors of Satisfaction by Insurance Type

Overall Satisfaction		Willingness to Recommend	
Public ($N = 781$)	Private ($N = 826$)	Public ($N = 781$)	Private ($N = 826$)
General Care	Problem Resolution	Problem Resolution	Problem Resolution
Problem Resolution	Nursing Care	Environment	General Reputation
Waiting Time	General Reputation	General Reputation	General Care
Nursing Care	Waiting Time	Attendees	Entering the ED
General Reputation	Physician Care	Waiting Time	Waiting Time

The regression results in Table 1 were statistically significant for all four analysis groups, $p < .05$ (see Appendix E). As stated in the Methodology, strong predictors were classified as key areas that ranked in the top five predictors for three or more of these analysis groups while moderately strong predictors ranked in the top five predictors for one or two of the four analysis groups. Table 1 shows that the key area of Problem Resolution ranked as the strongest predictor of patient satisfaction across all four groups except for overall satisfaction for the publicly insured group, where it ranked second. Since it ranked in the top five predictors in all four analysis groups, the key area of Problem Resolution was classified as a strong predictor of patient satisfaction. In addition to Problem Resolution, the key areas of Waiting Time and General Reputation ranked in the top five predictors of overall satisfaction and willingness to recommend for both publicly and privately insured groups. As a result of their appearance in each of the four analysis groups, the key areas of Waiting Time and General Reputation were classified as strong predictors of patient satisfaction as well.

Research Question #1: Is Nursing Care a strong predictor of ED patient satisfaction? Table 1 shows that the key area of Nursing Care is a strong predictor of overall satisfaction, ranking fourth for publicly insured patients and second for privately insured patients. However, Nursing Care was absent in predicting willingness to recommend. Based on the criteria set forth in the Methods section, the findings from the stepwise regression analysis suggest that Nursing Care is a moderately strong predictor of patient satisfaction because it placed in the top five predictors for two of the four analysis groups.

Research Question #2: Is Physician Care a strong predictor of ED patient satisfaction? The regression model in Table 1 shows that the key area of Physician Care is a strong predictor of overall satisfaction for the privately insured group, where it ranks fifth, but not for the publicly insured group. Like Nursing Care, the key area of Physician Care was also absent in predicting willingness to recommend. Since Physician Care placed in the top five predictors for one of the four analysis groups, it is a moderately strong predictor of patient satisfaction.

Research Question #3: Is Waiting Time Perception a strong predictor of ED patient satisfaction? Table 1 shows that the key area of Waiting Time Perception ranked in the top five predictors of overall satisfaction and willingness to recommend for both privately and publicly insured patients. As a result of its appearance in each of the four analysis groups, Waiting Time Perception is a strong predictor of patient satisfaction.

Content Analysis of Primary Data

A content analysis on the depth interview transcripts for the three key informants yielded the following results. The qualitative data obtained from the key informants

provided in-depth opinions and insights on the topic on ED patient satisfaction that cannot be captured by survey data. The key informant interview data helped build an understanding of what key themes are common in ED patient satisfaction

Uninsured ED patient. The first interviewee, the uninsured male ED patient in his early 20s, actually had no recollection of his time in the ED because of the severity of his motorcycle accident (Anonymous, personal communication, September 26, 2008). However, because of the EMTALA law, the patient was given a stabilizing surgical procedure on his leg and then sent to the Post-Anesthetic Care Unit following his surgery in order to recuperate. While the patient did not recall his experiences in the ED, his experiences as an uninsured patient still provided some useful information for this study. One of the main themes that the patient touched on was the level of communication between him and the staff. For example, the respondent stated that, "it's good to have some one on a day-to-day basis, other than family coming in, it's good to have staff come in and relate" (Anonymous, personal communication, September 26, 2008). When discussing the overall rating of his hospital stay, the respondent pointed out how staff members who came in and related to the patient made his stay more comfortable. Also, in his definition of patient satisfaction the patient stressed the importance of informing patients about their treatment options.

In addition to communication, another theme brought up by the uninsured interviewee was compassion by the staff. The patient pointed out that while the physicians were not very compassionate, the rest of the staff was. The patient touched on age and career stage as a possible explanation of why older, more experienced physicians were less compassionate than young nursing assistants who were just beginning their

careers. The patient explained that nursing assistants were more compassionate because "they were on the younger side so they were more compassionate about what they do" (Anonymous, personal communication, September 26, 2008). In addition to the nursing assistants, the patient also pointed out that the occupational and physical therapists were compassionate as well and how one therapist even shared his own personal experiences in order to help inspire the patient get through the rehabilitation process. Overall, the uninsured patient was satisfied with his care.

Medi-Cal ED patient. The second patient interviewee, a male Medi-Cal patient in his 50s who visited Methodist Hospital's ED for chest pains, brought up the theme of waiting time continually throughout his interview. Due to the severity of his condition, the patient was more concerned with getting attended to quickly than anything else. When defining patient satisfaction, this patient brought up how he was attended to very quickly in the Emergency Room after complaining of chest pains and shortness of breath. The patient explained that "they immediately brought me in to check my blood pressure and brought me to a bed inside the ED. So they attended to me quick" (Anonymous, personal communication, September 28, 2008). The patient went on to say that he would recommend the Methodist ED to others because they treated him quickly. Like the uninsured ED patient, this patient also brought up the compassion theme as well. The patient brought up how the Methodist ED physicians were very concerned with his condition and that the nurses made him feel very important. The patient stated that, "everybody was attentive to me, it's like you feel like a very important patient" (Anonymous, personal communication, September 28, 2008).

Moreover, as a Medi-Cal patient, he felt that he had access to the full range of services provided by the ED, even pointing out how they gave him an MRI and were able to detect another medical problem that differed from what he initially came in for. This is important to note because this suggests that ED patients at Methodist are not feeling any lack of access or poor service due to their insurance type. Overall, the Medi-Cal patient was extremely satisfied with his care, even bringing up that he also filled out an Avatar patient satisfaction survey and gave the Methodist ED excellent ratings.

Methodist ED manager. The third interviewee, a female member of Methodist Hospital's ED management staff, brought up several themes that each patient touched on. In her definition of patient satisfaction, the ED manager stated that patients should "not only have received appropriate care, but that they also received compassionate care" (Anonymous, personal communication, October 8, 2008). This definition relates to both patient interviewees, who mentioned earlier that compassion was an important factor in their satisfaction with their services.

Furthermore, the ED manager emphasized the paramount importance of waiting time perceptions and its influence on patient satisfaction by stating, "a key driver for ED satisfaction is how long they wait" (Anonymous, personal communication, October 8, 2008). For example, she brought up how the Methodist ED changed its process in May 2008 in order to shorten waiting times for patients and how the shorter waiting times led to the biggest increase in the ED's patient satisfaction scores since Avatar started handling the process. The Medi-Cal patient interviewee supported to this claim by stating that the shorter wait times would lead him to recommend Methodist Hospital to others. In

addition, the Medi-Cal patient also touched on shorter wait times in his definition of patient satisfaction.

The ED manager then touched on the importance of the communication theme and keeping patients informed about their treatment. Moreover, she reveals that the Methodist ED management trains their staff in improving patient-staff interactions via scripting, which gives staff members a script to follow for certain situations when dealing with patients. The staff members practice the scripting and even mold it to fit their personality and the end result is better communication with the patient.

Finally, the ED manager also mentioned the EMTALA law and that no patients are denied ED care at Methodist Hospital. This finding suggests that Methodist Hospital does not discriminate in providing ED services based on a patient's insurance type. Furthermore, this falls in line with the discourse from the Medi-Cal patient interviewee, who stated that he did not feel any lack of access to Methodist's services or facilities because he was a Medi-Cal patient.

Summary of key informant interviews. All three of the respondents emphasized the importance of compassionate care. Both the uninsured patient and the Medi-Cal patient reported satisfaction with their care despite their insurance status. The ED manager and the uninsured patient agreed on the importance of communication. Meanwhile, the ED manager and the Medi-Cal patient agreed on the importance of the waiting time theme. Finally, the ED manager and the Medi-Cal patient both stated that Methodist Hospital ED did not deny ED access or services based on insurance type.

Triangulation

The findings of the primary and secondary research methods were compared and common themes were found. For example, the Medi-Cal patient interviewee was extremely satisfied with his ED care, similar to the Avatar findings for publicly insured patients, who reported significantly higher satisfaction than privately insured patients. Furthermore, the ED manager and the Medi-Cal patient both stated that Methodist Hospital ED did not deny ED access or services based on insurance type. This can help explain why the Avatar patient satisfaction scores for Medi-Cal patients and privately insured patients were very similar. The convergence of the interview data and Avatar data suggest that ED patients at Methodist Hospital are being treated equally regardless of their insurance type.

In addition, both the Medi-Cal ED patient and the ED manager emphasized waiting time as an important theme in patient satisfaction, mirroring the results of the regression analysis. The key area of Waiting Time in the Avatar survey was a strong predictor of overall satisfaction and willingness to recommend for both publicly and privately insured patient groups. The qualitative responses from the two key informants, the Medi-Cal patient and the ED manager, strengthen the results of the regression analysis.

CONCLUSIONS AND RECOMMENDATIONS

The findings from this research study suggest that publicly insured patients rate their level of patient satisfaction significantly higher than privately insured patients at the Methodist Hospital Emergency Department, which is in direct opposition to the study's research hypothesis. When breaking down the public insurance group further into specific

groups, it is evident that this difference in satisfaction scores is due to the significantly higher satisfaction scores of Medicare patients. This suggests that Methodist Hospital is providing satisfactory service to both publicly and privately insured ED patients, and especially Medicare patients. Also, combining these quantitative findings with the responses from both the Methodist Medi-Cal patient interviewee and the Methodist ED manager demonstrates that Methodist Hospital is working to provide outstanding service to all ED patients regardless of insurance type.

Furthermore, Methodist Hospital should continue to develop patient satisfaction strategies that emphasize improvement in the key areas of Problem Resolution, General Reputation, and Waiting Time Perception. Through regression analysis, these key areas were found to be among the strongest predictors of overall satisfaction and willingness to recommend for both publicly and privately insured groups. As a result, these patient satisfaction improvement models can be applied to both publicly and privately insured groups.

Suggestions for Future Research

There are several directions to go into for future research in ED patient satisfaction. One area of future research includes identifying possible explanations for the differences in ED patient satisfaction between Medicare patient group and the other insurance groups. For example, one possibility is that Medicare patients may have lower expectations for care as a result of their age. In addition, since this study used secondary data, the next step could be to develop a primary survey and repeat the study with this instrument. Leedy and Ormrod (2005) point out that primary data is closer to the truth than secondary data, so it makes sense that future research comparing patient satisfaction

between publicly and privately insured groups is based on primary data. Moving on to another possible area for future research, the key areas from the Avatar survey can be broken down item by item (see Appendix C) and a stepwise linear regression can identify which items are the strongest predictors of patient satisfaction. These findings can then be utilized to develop even more specific guidelines for patient satisfaction improvement strategies. Finally, insurance type can be studied further by breaking down each insurance type by ethnicity and comparing the level of patient satisfaction between racial/ethnic groups to see if there are any meaningful differences.

Areas for Improvement and Shortcomings

There were some areas in this study that could be improved upon, most notably with the secondary data source that was used. Fortunately, the researcher was able to address some of these areas of concern with the Avatar survey. First, the Avatar survey had a few biased questions - including items 407, 409, and 411 - under the key area of ER Expectations in the Avatar Item Bank (See Appendix C). These questions were all biased toward eliciting positive responses from the respondent. To deal with this problem, these questions were eliminated from the SPSS database. Another area for improvement would be to shorten the Avatar survey. At 47 questions, this survey is extremely long and this could cause some respondents to stop filling out the survey (leedy & Ormrod, 2005, p. 190). Shortening the survey can help in keeping the respondent's attention and possibly increase response rates.

Unfortunately, there were some legal and organizational constraints with CHW that may not be overcome. For example, the HIPAA privacy law and CHW exclusion criteria (see Appendix A) make true random sampling virtually impossible in patient

satisfaction research at Methodist Hospital. Moving on, it was mentioned earlier that the next step in future research is to develop a primary survey instrument tool and repeat the study. However, since Methodist Hospital already has surveys for both Avatar patient satisfaction and Press Ganey physician satisfaction going out on alternating days, they frown upon any other researchers sending out patient surveys since the other two surveys are administered under contract. This is an unfortunate scenario, but it also represents the reality of real world constraints when conducting social science research.

Furthermore, the primary data from the key informant interviews could be improved upon by getting a larger sample size. This study only interviewed three key informants, and getting a larger sample size of key informants strengthens the triangulation between the primary and secondary data. Another area for improvement in the interview process is to improve researcher's interviewing skills. The more experience that a researcher has in conducting interviews; the more the researcher's interviewing skills develop and improve. As a result, the researcher will improve on their probing question techniques and timing in order to elicit better responses from the interviewees.

Validity

While using a secondary source such as the Avatar patient satisfaction survey has its drawbacks, it also has important advantages that go along with being a large research company. One great advantage of using the Avatar data is that it provides a rich data source. The Avatar survey provided a large sample size of 1669 respondents for this study, which is extremely difficult for small-scale researchers to achieve due to cost and time constraints. Another advantage of using the secondary Avatar data is that Avatar puts a great deal of effort in ensuring that its survey instrument truly measures patient

satisfaction. As mentioned earlier, Avatar (2005) maintains the internal validity of its survey instrument by using input from focus groups, healthcare managers, and psychometric analysis to refine the survey questions.

Due to the large sample size and the systematic sampling method, the results of this study can be generalized to the target population of Methodist ED patients despite the various legal and organizational constraints. Repeating the study and achieving similar results will increase the reliability of this study. Moreover, replicating the study at other hospitals with similar patient demographics that use the Avatar survey and achieving similar results will increase the external validity of this study.

Public Policy Recommendations

Based on the research, one public policy recommendation is to increase access to publicly funded insurance programs. Although the EMTALA legislation requires emergency departments to give care to any patient who comes in for service, it does not pay for the ED services. For example, the uninsured patient interviewee was denied Medi-Cal insurance because he failed to meet the eligibility requirements. As a result, the patient has over $400,000 in unpaid medical bills. Another area for concern when discussing the lack of access to public insurance programs deals with patients who use the ED for non-emergencies. The ED management interviewee and the patient satisfaction literature stated that many uninsured and uninformed patients use the ED as a form of primary care, going to the ED for minor ailments such as fevers. This puts a strain on the ED's ability to help patients with real emergencies. Increasing access to public insurance programs can prevent cases like the two mentioned here.

A final public policy recommendation is stricter enforcement of the EMTALA law. Without proper enforcement, the law lacks credibility. According to the Blalock and Wolfe (2001) study, the Healthcare Financing Administration reported 975 cases of EMTALA violations by hospitals and physicians to the Office of the Inspector General for the USDHHS from 1996 to 2001. However, only 261 of these cases, about 27%, have resulted in civil monetary penalties (p. 2). It should also be noted that this does not include any unreported violations, so this enforcement percentage could be even lower. The literature should be reviewed more extensively to search for more up-to-date studies on EMTALA enforcement in order to see if any changes have occurred between 2001 and 2008. Nonetheless, this figure of 27% enforcement is startling and questions the credibility of the EMTALA law. EMTALA violations can have grave consequences for patients with serious emergencies. For example, if a hospital turns a patient who has chest pains away because of their insurance type and that patient later dies from a heart attack, it results in an unfavorable outcome for all parties involved. As a result, legislation must be passed that requires stricter enforcement of EMTALA violations in order to increase hospital compliance with law and prevent unfavorable patient outcomes.

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APPENDIX A

CHW Record Exclusion Criteria

REQUIRED EXCLUSIONS	
TYPE	VALUE(S) TO EXCLUDE
Expired Patients	**Discharge status codes = 20-29, 40-42 and removal of expired patients' previous encounters using expired patients' medical record number.**
Hospice Patients	**Discharge Status codes** 50 Hospice Home 51 Hospice facility **Removal of Hospice patients' previous encounters using patients' medical record number.**
"No-Publicity" Patients	**Patients by facility by MR number that have requested to be excluded.**
Court or Law Enforcement Admissions	**Patients with an admission code of "8".**
MDC 15: Newborns and other Neonates with Conditions Originating in the Perinatal Period **Exclusion does not apply to facilities with NICU units being surveyed.**	**DRGs 385 - 391** 385 Neonates, Died or Transferred to Another Acute Care Facility 386 Extreme Immaturity or Respiratory Distress Syndrome of Neonate 387 Prematurity with Major Problems 388 Prematurity without Major Problems 389 Full Term Neonate with Major Problems 390 Neonate with other Significant Problems 391 Normal Newborn
MDC 19: Mental Diseases and Disorders	**DRGs 424 - 432** 424 OR Procedure with Principal Diagnosis of Mental Illness 425 Acute Adjustment Reactions and Psychological Dysfunction 426 Depressive Neuroses 427 Neuroses Except Depressive 428 Disorders of Personality and Impulse Control 429 Organic Disturbances and Mental Retardation 430 Psychoses 431 Childhood Mental Disorders 432 Other Mental Disorder Diagnoses

APPENDIX A

REQUIRED EXCLUSIONS	
TYPE	VALUE(S) TO EXCLUDE
MDC 20: Alcohol/Drug Use and Alcohol/Drug-Induced Organic Mental Disorders	**DRGs 433 – 438; 521 - 523** 433 Alcohol/Drug Abuse or Dependence, Left Against Medical Advice 434 No Longer Valid 435 No Longer Valid 436 No Longer Valid 437 No Longer Valid 438 No Longer Valid 521 Alcohol/Drug Abuse or Dependence with CC 522 Alcohol/Drug Abuse or Dependence with Rehabilitation Therapy without CC 523 Alcohol/Drug Abuse or Dependence without Rehabilitation Therapy without CC
Patients with sensitive diagnoses (STDs, anorexia, bulimia, etc.)	**Principal ICD9 diagnosis codes** 079.88 Other specified chlamydial infection 614.9 Unspecified inflammatory diseases of female pelvic organs and tissues 783.0 Anorexia 783.6 Polyphagia V01.6 Venereal Diseases 079.4 Human papillomavirus 300-310 Neurotic disorders, personality 312-316 disorders and other nonpsychotic mental disorders 295-299 Other Psychoses
Observation following alleged rape or seduction	**Diagnosis code in any position:** V71.5
Mothers with complications of pregnancy/childbirth (all ages)	**Principal ICD9 codes:** 630-633 Ectopic & molar pregnancy (including all subcodes). 634-639 Other pregnancy with abortive outcome (including all subcodes). 640-648 Complications mainly related to pregnancy (including all subcodes).

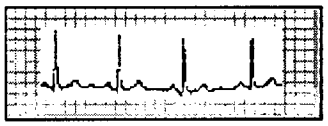
APPENDIX A

REQUIRED EXCLUSIONS	
TYPE	VALUE(S) TO EXCLUDE
Mothers with fetal deaths	**Diagnosis codes of the following in any position:** V27.1 Single stillborn V27.3 Twins, one liveborn and one stillborn V27.4 Twins, both stillborn V27.6 Other multiple birth, some stillborn V27.7 Other multiple birth, all stillborn
Skilled Nursing Facility (SNF)	Each CHW hospital will need to exclude SNF patients based on that hospital's patient type definition for SNF. Any SNF with average LOS of less than 30 days will not be excluded.
AMA – Against Medical Advice **LWBS – Left without being Seen**	**Discharge Status codes** 07 Left against Medical Advice or Discontinued Care
Certain Adverse Effects not elsewhere classified **Complications of Surgical or Medical Care nor elsewhere Classified**	**Diagnosis codes of the following in any position (including all subcodes):** 995 Certain Adverse Effects not elsewhere classified 996 Complications peculiar to certain specified procedures 997 Complications affecting specified body systems, not elsewhere classified 998 Other complications of procedures, not elsewhere classified 999 Generalized vaccinia
E Codes: Supplementary Classification of External Causes of Injury and Poisoning	**Diagnosis codes of the following in any position (including all subcodes):** E870–E879 Misadventures to Patients during Surgical and Medical Care E930-E949 Drugs, Medicinal and biological substances causing adverse effects in therapeutic use.

APPENDIX B

Methodist Hospital of Sacramento
CHW

Catholic Healthcare West
185 Berry Street Ste 300
San Francisco, CA 94107-1773



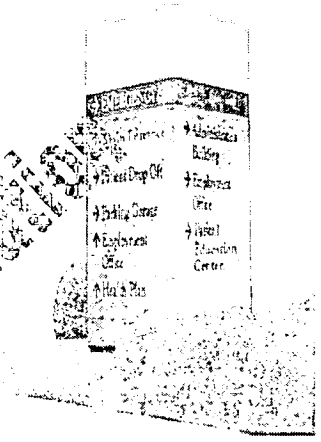
PATIENT NAME
123 PATIENT LANE
CITY, CA 99999-9999

Now that you've allowed us to care for you, tell us what you think of our services!

PLEASE RETURN YOUR COMPLETED SURVEY NO LATER THAN
December 13, 2006

Dear Patient,

You recently received medical care in our Emergency Department. We are very interested in learning about your experiences while you were with us.



At Methodist Hospital of Sacramento, we are dedicated to providing high quality health care in a caring, compassionate and comfortable environment. Your feedback is very important because it helps all of us at the hospital - administrators, physicians, nurses and staff - to consistently improve upon the way we provide our patient care.

Please take a few moments to fill out the attached evaluation, and return it to Improving Healthcare, Inc., our survey firm. If you would like to give us any additional comments, just use the space provided on the back of the survey.

When you've finished, enclose the survey in the pre-paid envelope and drop it in the mail. The results of your survey will be summarized by Improving Healthcare and reported to us at Methodist Hospital of Sacramento. Your name will not be associated with the results we receive.

We sincerely appreciate you taking the time to let us know how to better meet your health care needs.

Thank you,

Timothy M. Moran
President

Methodist Hospital of Sacramento
CHW

Emergency Department Survey

APPENDIX B

Please mark the response ◉ that most closely reflects your experience.

	Strongly Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Strongly Agree	Does Not Apply / Don't Know
I was kept informed of how long things would take.	○	○	○	○	○	○
The Emergency nursing staff helped me to understand my health condition.	○	○	○	○	○	○
The Emergency nursing staff identified who they were when caring for me.	○	○	○	○	○	○
The Emergency nursing staff were sensitive to my needs as a patient.	○	○	○	○	○	○
My needs were handled quickly and efficiently by the Emergency staff.	○	○	○	○	○	○
My privacy was respected in Emergency.	○	○	○	○	○	○
The Emergency physician explained my treatment in a way I could understand.	○	○	○	○	○	○
The Emergency nursing staff helped me to understand my treatment for care.	○	○	○	○	○	○
I was given the chance by the Emergency physician to provide input to my treatment.	○	○	○	○	○	○
The nursing staff anticipated my needs very well.	○	○	○	○	○	○
The Emergency staff kept me comfortable while I waited to see the physician.	○	○	○	○	○	○
Methodist Hospital's Emergency has very high quality nursing staff.	○	○	○	○	○	○
I was taught about the pain scale and how my pain would be managed.	○	○	○	○	○	○
Payment assistance was explained clearly to me.	○	○	○	○	○	○
The volunteers were friendly and courteous.	○	○	○	○	○	○
The Emergency staff took my problem seriously and responded quickly to help me.	○	○	○	○	○	○
Methodist Hospital's Emergency has very high quality physicians.	○	○	○	○	○	○
Billing and payments were handled properly.	○	○	○	○	○	○
My health condition was checked immediately when I got to Emergency.	○	○	○	○	○	○
Before arrival to Emergency, I expected things not to go wrong.	○	○	○	○	○	○
The bill was easy to understand.	○	○	○	○	○	○
Overall, I was very satisfied with my care at Methodist Hospital.	○	○	○	○	○	○
Billing and payment procedures were explained clearly to me.	○	○	○	○	○	○

Please Continue On Other Side...

Emergency Department Survey

APPENDIX B

Please mark the response ◉ that most closely reflects your experience.

	Strongly Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Strongly Agree	Does Not Apply / Don't Know
I felt safe in the Emergency area.	○	○	○	○	○	○
The Emergency waiting area was comfortable.	○	○	○	○	○	○
The staff collecting my co-pay were polite and professional.	○	○	○	○	○	○
Before arrival, my expectations of the overall quality of the Emergency services were extremely high.	○	○	○	○	○	○
Staff checked my name before giving me medication.	○	○	○	○	○	○
We were able to find the Emergency area quickly and easily.	○	○	○	○	○	○
I was referred to the proper place for follow-up care if needed.	○	○	○	○	○	○
The quality of care I received was not influenced by my insurance or ability to pay.	○	○	○	○	○	○
My family or the people going with me to Emergency received the help they needed.	○	○	○	○	○	○
My family or the people going with me to Emergency were kept well informed about my status.	○	○	○	○	○	○
The person who handled my registration was polite and professional.	○	○	○	○	○	○
Before I came to Emergency, I expected my personal needs to be met extremely well.	○	○	○	○	○	○
The volunteers were helpful in offering aid or directions.	○	○	○	○	○	○
Parking was adequate.	○	○	○	○	○	○
Methodist Hospital's Emergency has up to date medical equipment and facilities.	○	○	○	○	○	○
The medicine for my pain helped to take away the pain.	○	○	○	○	○	○
The hospital staff supported my faith, beliefs and values.	○	○	○	○	○	○
Emergency staff washed their hands or used hand sanitizer before caring for me.	○	○	○	○	○	○
My request for pain control was responded to quickly by nursing staff.	○	○	○	○	○	○
Compared to other local or regional hospitals, Methodist Hospital provides the best Emergency care.	○	○	○	○	○	○
I would recommend the Emergency services here without hesitation to others.	○	○	○	○	○	○
I would prefer to return to Methodist Hospital without hesitation, if Emergency care is needed.	○	○	○	○	○	○
Overall, the Emergency care I received was worth the cost.	○	○	○	○	○	○
My need was taken care of promptly and to my satisfaction if there was a problem.	○	○	○	○	○	○

17005635

Thank you for your help!

326D497510

APPENDIX C
AVATAR ITEM BANK

CHW Assigned Emergency Key Areas and Items

CHW ER Environment (1407)
- 375) The Emergency area was very clean, including entrances and hallways.
- 376) My examination or treatment room was very clean.
- 379) The Emergency waiting area was comfortable.

CHW ER Nursing Care (1401)
- 336) The Emergency nursing staff were responsive in answering my calls or requests.
- 337) The Emergency nursing staff helped me to understand my health condition.
- 338) The Emergency nursing staff were sensitive to my needs as a patient.
- 339) The Emergency nursing staff identified who they were when caring for me.
- 344) The Emergency nursing staff helped me to understand my treatment for care.
- 4044) The Nursing Staff anticipated my needs very well.

CHW ER Overall Satisfaction (1403)
- 4046) Overall, I was very satisfied with my care at [HN].

CHW ER Patient Safety (1408)
- 380) I felt safe in the Emergency area.
- 4054) Staff checked my name before giving me medication.
- 4082) Emergency staff washed their hands or used hand sanitizer before caring for me.

CHW ER Payment Assistance (1406)
- 4051) Payment assistance was explained clearly to me.
- 4052) Payment assistance was offered to me in a caring and helpful manner.
- 4053) The staff collecting my co-pay were polite and professional.

CHW ER Spiritual Care (1404)
- 4047) The hospital staff supported my faith, beliefs and values.
- 4049) A chaplain was available when I needed one.

CHW ER Volunteers (1405)
- 3147) The volunteers were friendly and courteous.
- 4050) The volunteers were helpful in offering aid or directions.

CORE ER Attendees (65)
- 370) My family or the people going with me to Emergency received the help they needed.
- 371) My family or the people going with me to Emergency were kept well informed about my status.
- 372) My family or the people going with me to Emergency felt safe while they were there.

CORE ER Billing (476)
- 400) Billing and payment procedures were explained clearly to me.
- 599) The bill was easy to understand.
- 2661) Billing and payments were handled properly.

APPENDIX C
AVATAR ITEM BANK

CORE ER Entering Emergency (64)
362) The registration process was completed in a timely manner.
366) The person who handled my registration was polite and professional.
367) The quality of care I received was not influenced by my insurance or ability to pay.
369) The registration process was efficient and easy.

CORE ER Expectations (72)
407) Before arrival, my expectations of overall quality of Emergency services were extremely high.
409) Before I came to Emergency, I expected my personal needs to be met extremely well.
411) Before arrival to Emergency, I expected things not to go wrong.

CORE ER General Care (62)
341) Tests and procedures in Emergency were adequately explained to me before they were done.
348) There was good teamwork among the Emergency physicians, nurses, technicians, and other staff who cared for me.
350) My needs were handled quickly and efficiently by the Emergency staff.
352) I consistently received respect and compassion while in Emergency.
353) I was closely watched for any changes in my condition.
381) My privacy was respected in Emergency.
2662) I was kept informed of how long things would take.

CORE ER General Reputation (71)
403) [HN]'s Emergency has very high quality physicians.
404) [HN]'s Emergency has very high quality nursing staff.
405) [HN]'s Emergency has up to date medical equipment and facilities.

CORE ER Getting To (68)
390) We were able to find the Emergency area quickly and easily.
392) Signs inside and outside the Emergency area were easy to understand.
393) Parking was adequate.

CORE ER Key Results (449)
419) Overall, the Emergency care I received was worth the cost.
420) I would prefer to return to [HN] without hesitation, if Emergency care is needed.
591) Compared to other local or regional hospitals, [HN] provides the best Emergency care.
1904) I would recommend the Emergency services here without hesitation to others.

CORE ER Leaving Emergency (475)
398) I was referred to the proper place for follow-up care if needed.
399) Medications and care at home were explained to me in a way I could follow.

CORE ER Pain Management (678)
2498) My request for pain control was responded to quickly by nursing staff.
2499) The medicine for my pain helped to take away the pain.
2500) I was satisfied with the way my physician treated my pain.
2501) I was taught about the pain scale and how my pain would be managed.
2570) I was adequately prepared to manage my pain at home.

APPENDIX C
AVATAR ITEM BANK

CORE ER Physician Care (60)

323) The Emergency physician showed concern and sensitivity to my needs.
324) The Emergency physician answered my health-related questions.
326) I was given the chance by the Emergency physician to provide input to my treatment.
328) I received the right amount of attention from the Emergency physician.
330) The Emergency physician explained my treatment in a way I could understand.
334) The Emergency physician made me feel comfortable about what was going to happen to me.
465) The Emergency physician explained the medical findings in a way I could understand.

CORE ER Problem Resolution (75)

808) Emergency staff tried their best to help me if there was a problem.
809) My need was taken care of promptly and to my satisfaction if there was a problem.
1884) I had no significant complaints or dissatisfactions while in Emergency.

CORE ER Waiting for Care (67)

382) Given my medical condition, I did not have to wait long.
384) My health condition was checked immediately when I got to Emergency.
387) The Emergency staff kept me comfortable while I waited to see the physician.
388) The Emergency staff took my problem seriously and responded quickly to help me.

APPENDIX D
MANAGEMENT INTERVIEW

Date:
Hello <NAME>,

My name is Kyle Tupaz and I am completing a thesis project for the Master of Public Administration Program at Golden Gate University. You are participating in a research study on Patient Satisfaction in the Emergency Room. This interview will ask for your opinions and insights regarding patient satisfaction with emergency department services. Your identity will remain anonymous and your responses will be used solely for the purposes of this study. Please note that your participation is completely voluntary and that you have the right to stop participation at any time.

I understand the terms and conditions for participating in this research.

Signature_____Print Name_____Date_____

Please answer the following questions:

Patient Satisfaction Items

1) How would you define patient satisfaction? Can you elaborate?

2) What aspects make the patient's experience in the ED satisfactory? Can you specify certain aspects and elaborate on each one?

3) What aspects can the ED improve upon to make the patient experience more enjoyable? Can you elaborate?

4) What are some customer service aspects that your department focuses on with regards to the patient-staff interactions? Can you go into details? Why?

5) Did you believe that all patients have adequate access to the ED's services and facilities? Can you go into detail? Why

6) Do you have any other comments that you would like to add?

Demographic Information

1) How many patients use the ED each month? Annually?

2) What is the ethnic breakdown of ED patients?

3) What percentage of ED patients use publicly funded insurance such as Medi-Cal, Medicare, Healthy Families, Tricare, etc.? What is the breakdown?

If you would like to know the results from this study you may contact the researcher via email @ kvtupaz@hotmail.com

APPENDIX D
PATIENT INTERVIEW

Date:
Hello <NAME>,

My name is Kyle Tupaz and I am completing a thesis project for the Master of Public Administration Program at Golden Gate University. You are participating in a research study on Patient Satisfaction in the Emergency Room. This interview will ask for your opinions and insights regarding patient satisfaction with emergency department services. Your identity will remain anonymous and your responses will be used solely for the purposes of this study. Please note that your participation is completely voluntary and that you have the right to stop participation at any time.

I understand the terms and conditions for participating in this research.

Signature_____Print Name_____Date_____

Please answer the following questions:

1) How would you define patient satisfaction? Can you elaborate?

2) What aspects made your experience in the ED enjoyable? Can you specify certain aspects?

   a) How were the physicians?

   b) How were the nurses?

   c) How were the staff members?

3) What aspects can the ED improve upon to make your experience more enjoyable? Can you elaborate?

4) Did you believe that you had adequate access to the ED's services and facilities? Can you go into detail?

5) Overall, how would you rate your stay in the ED?

6) Would you come back to that hospital's ED again to receive care?

7) Do you have any other comments that you would like to add?

If you would like to know the results from this study you may contact the researcher via email @ kvtupaz@hotmail.com

APPENDIX E
Regression Tables for Avatar Data

Table 2:

Stepwise Linear Regression Analysis for Key Areas predicting Publicly Insured Patients' Overall Satisfaction (N = 781)

		Unstandardized		Standardized
	Key Area	B	Std Error	Beta
Step 1				
	General Care	.980	.025	.812*
Step 2				
	General Care	.590	.036	.488*
	Problem Resolution	.407	.029	.417*
Step 3				
	General Care	.476	.039	.394*
	Problem Resolution	.356	.029	.365*
	Waiting Time	.181	.028	.183*
Step 4				
	General Care	.331	.046	.274*
	Problem Resolution	.305	.030	.313*
	Waiting Time	.164	.027	.166*
	Nursing Care	.238	.043	.203*
Step 5				
	General Care	.272	.047	.225*
	Problem Resolution	.271	.030	.278*
	Waiting Time	.146	.027	.147*
	Nursing Care	.208	.043	.177*
	General Reputation	.138	.035	.143*

* $p < .05$

APPENDIX E
Regression Tables for Avatar Data

Table 3:

Stepwise Linear Regression Analysis for Key Areas predicting Privately Insured Patients' Overall Satisfaction (N = 826)

		Unstandardized		Standardized
	Key Area	B	Std Error	Beta
Step 1				
	Problem Resolution	.807	.020	.816*
Step 2				
	Problem Resolution	.481	.026	.486*
	Nursing Care	.542	.033	.438*
Step 3				
	Problem Resolution	.394	.026	.398*
	Nursing Care	.376	.036	.304*
	General Reputation	.349	.036	.263*
Step 4				
	Problem Resolution	.323	.027	.326*
	Nursing Care	.314	.035	.253*
	General Reputation	.313	.035	.236*
	Waiting Time	.191	.024	.188*
Step 5				
	Problem Resolution	.292	.027	.295*
	Nursing Care	.216	.037	.174*
	General Reputation	.267	.035	.201*
	Waiting Time	.203	.023	.199*
	Physician Care	.202	.029	.167*

* $p < .05$

APPENDIX E
Regression Tables for Avatar Data

Table 4:

Stepwise Linear Regression Analysis for Key Areas predicting Publicly Insured Patients' Willingness to Recommend (N = 781)

		Unstandardized		Standardized
	Key Area	B	Std Error	Beta
Step 1				
	Problem Resolution	.759	.021	.795*
Step 2				
	Problem Resolution	.527	.024	.552*
	Environment	.459	.031	.372*
Step 3				
	Problem Resolution	.414	.027	.434*
	Environment	.354	.033	.287*
	General Reputation	.273	.034	.238*
Step 4				
	Problem Resolution	.363	.028	.381*
	Environment	.293	.034	.237*
	General Reputation	.249	.033	.217*
	Attendees	.176	.033	.148*
Step 5				
	Problem Resolution	.333	.029	.349*
	Environment	.272	.034	.220*
	General Reputation	.218	.034	.190*
	Attendees	.150	.033	.126*
	Waiting Time	.108	.027	.111*

* $p < .05$

APPENDIX E
Regression Tables for Avatar Data

Table 5:

Stepwise Linear Regression Analysis for Key Areas predicting Privately Insured Patients' Willingness to Recommend (N = 826)

	Unstandardized		Standardized
Key Area	B	Std Error	Beta
Step 1			
Problem Resolution	.767	.021	.789*
Step 2			
Problem Resolution	.513	.027	.528*
General Reputation	.474	.036	.364*
Step 3			
Problem Resolution	.419	.029	.431*
General Reputation	.347	.040	.266*
General Care	.288	.040	.226*
Step 4			
Problem Resolution	.395	.030	.407*
General Reputation	.310	.040	.238*
General Care	.224	.042	.175*
Entering the ED	.163	.036	.126*
Step 5			
Problem Resolution	.365	.031	.376*
General Reputation	.302	.040	.232*
General Care	.186	.043	.146*
Entering the ED	.134	.037	.104*
Waiting Time	.103	.029	.103*

* $p < .05$

APPENDIX F
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EMPA 396 - Fall B 2008

Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8

TASK

1. Determine research topic and develop hypothesis and research questions.
2. Conduct literature review for rerelevant articles, studies, figures, etc.
3. Develop methodology and begin formulating survey instruments for research project.
4. Begin data collection by administering interviews and obtaining secondary data files.
5. Perform data analysis and interpret findings.
6. Develop conclusions and make recommendations.
7. Finish up CAPSTONE project and prepare to present findings.