CUSTOMER SATISFACTION: AN INTEGRAL COMPONENT OF HOSPITAL STRATEGY

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Acknowledging the important role physician satisfaction plays relative to financial outcomes has been a relatively recent phenomenon within the health care industry. The purposes of this study were to determine the relationships between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care; the relationship between each of the selected hospital practices and physician satisfaction in terms of a place to practice medicine controlling for the remaining two selected hospital practice variables; and the linear combination of hospital administrators willingness to encourage physician input and involvement in decision making and each of the selected hospital practice variables.

The sample consisted of 104 randomly selected physicians who practiced at one Midwestern hospital within 18 months preceding the survey. The instrument pertained to an 83-item telephone interview conducted by professionally trained interviewers.

The statistics that pertained to the relationship between the hospital as a place to practice medicine and hospital administrators willingness to encourage physician input

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and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care were significant $R^2 = .15$, $p = .00$. The β values that pertained to the relationship between the hospital as a place to practice medicine and hospital administrators' willingness to encourage physician input and involvement in decision making ($p = .03$) and the availability of medical equipment ($p = .01$) while controlling for each of the remaining variables were significant. The r values that pertained to the relationship between hospital as a place to practice medicine and each of the hospital administrators' willingness to encourage physician input and involvement in decision making ($r = .23$, $p = .01$); nursing staff competency relative to assessment and monitoring of patient status ($r = .17$, $p = .05$); and availability of medical equipment to deliver medical care ($r = .33$, $p = .00$) were significant.

Results of the study were similar to existing literature specific to physicians' desire for involvement in decision-making, competent nursing staff, and the availability of medical equipment in a hospital setting. Contrary to what was reported in the literature relative to physician desire for input and involvement in decision making as a key driver of physician satisfaction, this study's findings suggest that the availability of medical equipment was also a key item relative to physician satisfaction. The need for further research and identification of other contributing variables was recognized. Implications for hospital administrators are presented and discussed.

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CHAPTER I

THE NATURE OF THE PROBLEM

Introduction and Statement of the Problem

Healthcare throughout the 1990s and into the 21st century continues to undergo profound changes regarding reimbursement, staffing shortages, and the struggle to maintain and grow market share. While many factors impact a hospital's fiscal survival, the fundamental issue rests with patient volume. Decreased patient volume equates to lower revenues. Hospital administrators are ultimately responsible for fiscal stability of their respective institutions. A key strategy to meet the objectives of increased patient volume, which equates to increased revenue, is keeping the customer base satisfied. Thus, the need to focus attention to the arena of customer satisfaction is an integral component of hospital strategy.

The phenomenon of satisfaction is a foundational component in today's consumer-driven marketplace. Businesses in all industries focus on the quantification of customers' assessment of services and products, because they understand that customer opinions shape the competitive marketplace and determine business survival. Customer satisfaction can be defined as "a sense of contentment that occurs when one's expectations are fulfilled or even exceeded" (Surveytools, 2002). The healthcare industry is especially sensitive to customer satisfaction. Small increases or small decreases in customer satisfaction can have a dramatic effect on hospitals' profitability.

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When examining customer satisfaction specific to hospitals, the literature focuses on four core constituency population bases. Employees, patients, third party payers, and physicians have all been demonstrated to play a significant role in hospitals' fiscal survival (Fottler, Ford, & Heaton, 2002; Herzlinger, 1997; Mycek, 2001; Oswald, Turner, Snipes, & Butler, 1998; Press, 2002; Yavas & Shemwell, 2001). Employee satisfaction is widely reported in both the general workplace and healthcare literature. Hospitals with satisfied employee workforces enjoy increased financial stability. Hospitals with satisfied employees bases spend less on recruitment and retention dollars and enjoy greater efficiency which, in turn, leads to increased business (Atkins, Stevenson, Marshall, & Javalig, 1996, Burns, 1998; Fottler, Ford, & Heaton, 2002; Mycek, 2001; Press 2002). Not only is a satisfied employee base necessary for a hospital's success, the customer base is even more critical. A plethora of literature exists regarding the relationship of patient satisfaction and financial success of healthcare institutions (Baker & Taylor, 1997; Dingman, Williams, Fosbinder, & Warnick, 1999; Fottler, Ford, & Heaton, 2002; Gotlieb, 2000; Oswald, Turner, Snipes, & Butler, 1998; Press, 2002; Redmond & Sorrell, 1999; Taylor, 1999; Yavas, & Shemwell, 2001; Zemencuk, Hayward, Skarupski & Katz, 1999). Over the last several years, members of the healthcare community have recognized that patient satisfaction is a very important strategic component of fiscal survival. Probably the most important and neglected hospital customer base is physician satisfaction. Physicians play a key role in determining where patients will receive their healthcare services. Keeping physicians satisfied with their organization is widely recognized as the most important hospital strategy to maintain and grow market share. Because of the pivotal role physicians play as the primary providers and entry point of healthcare,

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it is important for hospitals to gain a better understanding of physician expectations and satisfaction levels within their own systems. While a vast amount of literature exists regarding patient and employee satisfaction, a limited amount of research is written specific to the hospital customer base related to physician satisfaction. Additional research is warranted in this area. Therefore, the problem examined by this study was a lack of knowledge relative to the key factors that comprise physicians' satisfaction within the hospitals in which they practice medicine.

Purpose of the Study

The purpose of this study was to determine the relationship between physician satisfaction in terms of a place to practice medicine and hospital administrators willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Research Questions and Hypotheses

The research questions and hypothesis relative to the study included the following:

Research Question 1

> What is the relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?

Hypothesis. There is a relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

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Research Question 2

> What is the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining selected hospital practice variables?

Hypothesis. There is a relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining selected hospital practice variables.

Research Question 3

> What is the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?

Hypothesis. There is a positive and linear relationship between the physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making nursing staff competency in assessing patient status and availability of medical equipment to deliver medical care.

Definitions of Terms

For the purpose of this study, terms were defined as follows:

1. Satisfaction: "a sense of contentment that occurs when one's expectations are fulfilled or even exceeded' (Surveytools, 2002).

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2. Employee Satisfaction: "the feelings an employee has about the job in general" (McNeese-Smith, 1996, p. 163)

3. Patient Satisfaction: "the degree of congruency between a patient's expectations of ideal care and his or her perceptions of care" (Scardina 1994, p 39).

4. Third Party Payer: "a public or private organization that pays for or under-writes coverage for healthcare expenses" (Novartis, 1997).

5. Competence: "a cluster of related knowledge, attitudes, and skills that affects a major part of one's job; that correlates with the performance on the job; and that can be measured against well-accepted standards" (Proehl, 2002).

6. Fee-for-Service: "traditional provider reimbursement, in which the physician and hospital are paid according to the service performed" (Novartis, 1997).

7. Managed Care: "the sector of health insurance in which healthcare providers are not independent businesses run by, for example, the physician and the hospital, but by administrative firms that manage the allocation of healthcare benefits." Managed care firms have a significant say in how services are administered to patients so that they can better control healthcare costs (Novartis, 1997).

8. Medicaid: "...an entitlement program run by both the state and federal government for the provision of healthcare insurance to patients younger than 65 years of age who cannot afford to pay for private health insurance" (Novartis, 1997).

9. Medicare: "...an entitlement program run by the Healthcare Financing Administration of the federal government through which people aged 65 years or older receive healthcare insurance" (Novartis, 1997).

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Delimitations of the Study

It should be noted that while the results of the study are expected to reflect the desires of practicing physicians who practice at a Midwestern Hospital, it is not possible to say with certainty that these results are reflective of the desires of all practicing physicians in the country.

This particular study was not focused on overall physician job satisfaction; rather the focus was more specific and limited to physician as customer of hospitals. A focus on the broader scope of physician job satisfaction would have also pertained to physician practice environment issues such as personal income, the evolving malpractice dynamics, and their general satisfaction with the profession of medicine as a whole.

Background of the Study

Today's modern economy is dominated by retail service organizations that are dependent upon customers for financial viability. The literature specific to customer satisfaction is well articulated in the service management literature. The healthcare industry is similar to the retail industry relative to the foundational role that satisfied customers play in sustaining financial stability. Small increases or small decreases in customer satisfaction can have a dramatic effect on hospitals' profitability. Therefore, hospitals focus on the following four customer bases as a major strategic initiative to maintain and grow market share: patients, employees, third-party payers, and physicians. All of these hospital customers impact hospital profitability.

When examining the impact of satisfied patients specific to hospital outcomes, the literature is robust regarding patient satisfaction. The literature strongly supports key influences such as the patients' perception of the nursing staff, the flow of hospital

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services and the environmental appearance as significantly affecting the patients' satisfaction with the services they receive (Bitner, 1990; Chang, 1997; Fottler, Ford, & Heaton, 2002; Gotlieb, 2000; Press, 2002; Redmond & Sorrell, 1999; Wolfe, 1999). It is well known throughout the healthcare industry that satisfied patients lead to improved financial out-comes, reduced risk management claims, decreased staff turnover, and increased patient loyalty. All of these factors are significant determinants of repeat business for hospitals (Fottler, Ford, & Heaton, 2002; Ganey & Drain, 1998; Dingman, Williams, Fosbinder, & Warnick, 1999; Hickson, Clayton, Entman, Miller, Githens, Whetten-Goldstein, & Sloan, 1994; Press, 2002; Press, 1986; Redmond & Sorrell, 1999). The preponderance of evidence suggests that healthcare institutions that are able to identify patient related problems from the patients' perspective and take action to solve those problems realize increased market share growth (Burns, 1998; Heyer & Hite, 1996; Mycek, 2001; Press, 2002; Press & Pollock, 1996; Yavas & Shemwell, 2001). Bain Consulting, based in Boston, reports that a 5% improvement in a hospital's patient satisfaction level can boost profits by 25% (Stout, 2001).

A satisfied physician customer base is also an essential component for hospital fiscal survival. And while the importance of patient satisfaction is well known and reported in the literature, far less is reported in the literature regarding physician satisfaction. While it is well known that satisfied patients can assist in creating a sound financial base, physicians serve as the major decision maker and gatekeeper in delivering medical care. The majority of the time a patient's physician will make the decision where the patient will receive hospital care and most likely patients will go where their physician prefers, when possible. Thus, physicians become an important customer base of focus for hospitals.

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With physicians playing such a major role in directing patients to specific hospitals, even small increases or decreases in patient volume can have dramatic impact on the profits of the hospital. Keeping physicians satisfied within the healthcare institutions they practice, becomes a very significant factor when one considers the ramifications of loss of patient revenue due to the viable threat of physicians deflecting patients to another competing hospital if they become dissatisfied with a particular hospital. When physicians are dissatisfied with the particular hospital in which they practice, they can express their dissatisfaction by choosing to take their patients elsewhere or by verbally expressing their opinions to administrative leadership (Hirschman 1970). This type of power presents a constant and real threat to hospital administrators. Another type of power physicians possess outside of the volume loss threat is demonstrated by the heavy influence they have in establishing a hospital reputation. The image of a hospital is heavily formed not only by the experiences of patients and employees but by the physicians who practice medicine at those hospitals (Smith, Reid, & Piland, 1990).

The literature references several foundational hospital elements that lead to physician satisfaction (Ambrose, 1977; Stevens, Diederiks, & Philipsen, 1992; Okorafor, 1983). All of these factors focus on three different roles of the physician. First and foremost, physicians are customers of the hospitals' services who also function as providers of hospital services to patients and who can function as partners with hospitals regarding organizational decision making. All of these roles provide opportunities for physicians to be satisfied or dissatisfied with hospital services and hospital administration. As customers of hospitals, physicians desire competent and responsive staff and systems, easy access to services, and cutting edge technology (Ambrose, 1977; Scharf & Caley, 1993;

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Smith, Reid, & Piland, 1999; Weiss, 1983). As providers of the hospital services, the literature consistently notes that physicians desire easy access for their patients, current technology, equipment, facilities to provide care to their patients, and competent care provider staff whom they can depend on to relay accurate and timely information about their patients in their absence (Ambrose, 1977; Scharf & Caley, 1993; Smith, Reid, & Piland, 1999).

Other key factors noted in the literature that increase physician satisfaction include modern equipment and facilities to perform their job, skilled and competent nursing staff to care for their patients, convenient hospital location, and supportive, accessible, responsive administrative leaders (Coddington & White, 1986; Smith, Reid, & Piland 1990). A 2002 physician survey conducted by the Clinical Advisory Board noted competency of nursing staff as the second most important driver of physician/hospital loyalty.

Finally, physicians desire a trustworthy and responsive hospital administrative team. Physician's desire the opportunity to be part of decision making within the organization they practice. Several studies cite physician relationship with hospital administrators as a key influence regarding physician satisfaction (Mack, 1998; Stevens, Diederiks & Philipsen, 1992). Much of the satisfaction literature notes that physicians perceive they are not as engaged in the decision making as they would like to be (Ashmos, Duchon, & McDaniel, 2000; Rovinsky, 2002; Smith, Reid, & Piland, 1990).

At the 2000 American College of Healthcare Executives' Congress on Healthcare Management in Chicago, Barbara LeTourneau, past president of the American College of Physician Executives (as cited by Egger, 2000), highlighted hospital convenience, competent care providers, degree of engagement and input into hospital administration

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decision making, and a working environment that balances the business activities with the needs of the patient as key desires of physicians.

Mintzberg (1997) noted that hospitals are incredibly fragmented places, which often lead to little collaboration between physicians and hospital administrators. Instead, Mintzberg (1997) describes an environment in which four worlds exist independent of one another viewing things quite differently. Mintzberg (1997) categorizes these four stakeholders as: the trustees, the physicians, the managers, and the nurses. Mintzberg's (1997) research indicates that, for the most part, the trustees, the physicians, the managers, and the nurses essentially ignore each other and attempt to problem solve separately of one another. Each entity tends to be concerned with its own individual cohort problems with no mechanism for interdisciplinary solving of systemic problems (Ashmos, Duchon, & McDaniel, 2000; Mintzberg, 1997).

The dynamics of a turbulent healthcare environment over the last 15 years have facilitated Mintzberg's (1997) observation and created a climate of mutual distrust in many healthcare communities. Changes in healthcare reimbursement occurring in 1983 forced a move from a dual operating system in which the physician functioned in their own domain and managed the patient's care and the hospital managed the operations end of the relationship (Curtis, 2001). Prior to the payment changes that occurred in the mid 1980's, both the hospital and the physicians functioned harmoniously as partners in healthcare and each were generously paid despite their autonomous roles for these services (Burns, Andersen, & Shortell, 1990; Curtis, 2001).

This new reimbursement system initiated by the federal government as an attempt to control increasing healthcare costs no longer paid physicians and hospitals on a fee-

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for-service basis. Instead, reimbursement was based upon an episode of care in which government paid a bulk amount to the hospital for a specific disease and a flat fee per visit to the physician regardless of how many resources were used. In essence, the new payment structure had pitted the two major stakeholders at opposite ends of the spectrum regarding payment for service incentives. Hospitals were rewarded monetarily for preserving resources, while physicians continued to be rewarded monetarily regardless of resource use (Curtis, 2001).

This divergence in payment methodologies mandated hospital operations to become much more efficient and cost effective to sustain profitability and long-term survival. In order to cut costs, hospitals were forced to increase their involvement in managing patients care by imposing increased pressure on physicians to decrease length of hospital stays, order less testing on patients, and to perform testing not related to the patient's current condition as an outpatient. Hospitals also began to focus on reengineering healthcare efficiency as well as procurement of advanced medical technology to achieve cost savings and capture market share (Smith, Reid, & Piland, 1990). Ironically, as hospitals were becoming more economically dependent on physicians for admitting patients, they were also at risk for physicians' decisions regarding resource utilization, which would now only be paid as a bulk sum regardless of the total cost of care of that particular stay. Burns, Andersen, and Shortell (1990) summarized the reason for their tenuous relationships by saying "what the hospital gains by reducing stays and costs, the physician now loses" (p. 532). This change in incentives and mandated interdependence continued to erode physician/hospital relationships.

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From 1984 to 1990, hospitals, mostly without input or involvement of physicians, experimented with several failed strategies to control costs (Smith, Reid, & Piland, 1990). Not surprisingly, these changes in hospital operations raised the existing tensions between physicians and hospitals related to patient care issues. During this time period, relationships between hospitals and physicians moved from a historical relationship of harmonious co-existence to a more competitive environment in which each viewed the other as a rival (Curtis, 2001; Smith, Reid, & Piland, 1990).

Adding to the tenacious physician/hospital climate was the emergence of managed care in 1990. By the beginning of 1990s, employers, along with state and federal governments concerned with continued rising healthcare costs nearing 14% of the gross domestic product, adopted the concept of managed care (Curtis, 2001). Managed care embodied the practice of cost-containment, physician networks to provide patient care at a discounted rate, and the demand for quality. Fears of contract lockout and financial loss initially prompted physicians to view hospitals as a potential strategic ally. Like many other failed healthcare initiatives, managed care did not live up to what it was touted to achieve and died a slow death in most healthcare markets. Unfortunately, wounds still exist today with many physicians regarding the failed management strategy of hospitals who attempted to impose managed care upon physicians without proper planning and collaboration with the very physicians they were dependent upon to make managed care a viable cost containment strategy in a changing healthcare environment.

Efforts continued throughout the 1990s to integrate physician relationships as a key part of hospital strategy to assist in controlling costs and enhancing revenues. Unfortunately, hospital attempts to collaborate with physicians to control rising costs

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were viewed as less than collaborative by physicians. Similar to past experiences, many hospitals failed to lay the foundation and engage physicians in the decision making process, thus eroding the trust factor between them even more.

A vast amount of literature exists regarding the need to integrate physicians into organizational decision making and strategies to facilitate physician/hospital relationships (Ashmos, Duchon, & McDaniel, 2000; Betts, 2002; Brown & Mayer, 1996; Hiltz, Hodges, Klein, Shapiro, Sundelius, & Wendling, 1996; Purtell, 2002; Rice, 2002; Rovinsky, 2002). Research performed by Ashmos, Duchon, & McDaniel (2000) regarding physician participation in strategic decision making demonstrated that hospitals with increased physician participation in strategic decisions financially outperform hospitals with less physician involvement. In addition, it was noted that those hospitals embracing a systemic approach to change reflecting strategic planning, mutual goal setting, and stakeholder participation verses those hospitals who had a reactive approach were able to engage physicians in decision making (Ashmos, Duchon, & McDaniel, 2000).

Additional factors impacting hospital and physician relations include the increasing personal dissatisfaction within the physician community specific to their own practice environment. The principle drivers of this dissatisfaction are economically related to dramatic increases in malpractice insurance, an appreciable decline in physician income attributable to declining payments from all payer sources, and the increase in the physicians' cost of doing everyday business (American Medical Association, 2001; Bureau of Labor Statistics 2002; Cochran, Carolina Securities, LLC, 2002; Massachusetts Medical Society, 2002). As physicians continue to lose personal income earning potential, hospitals are challenged with yet another barrier to overcome. Many physicians are

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reluctant to become involved in hospital operational decision making due to the fact that they are increasingly more concerned with their own financial well-being and having to work harder to maintain their income levels. Thus, while it is certain that most physicians react when changes occur within the institutions in which they practice, hospitals that do try to engage physicians in decision making are finding less participation due to these competing factors.

Additional threats to hospitals' core business include the increasing numbers of physician entrepreneurs who are building specialty practice centers such as free standing surgical centers, specialty surgical hospitals, or other specialty niche centers as an effort to grow personal income (Becker, 2001; Beckley, 2001). This is of particular concern to hospitals as reimbursement for surgical procedures is a major profit margin booster. Wolosin (2002) estimates that surgical services produce two-thirds of total hospital revenue. Most hospitals have recognized the strategic importance of retaining surgeon loyalty and are investing in services and efforts to improve satisfaction to maintain the critical surgeon base of physicians who practice in their hospital.

With all of the evidence supporting the strategic role that physician satisfaction plays relative to overall hospital financial stability, most would think that keeping the physicians' customer base satisfied would be a key initiative for hospitals. Interestingly, in the face of such competition for physician loyalty, physician relations are not at the top of the list for a majority of hospital executives. In a hospital Chief Executive Officer fax study conducted by the Healthcare Advisory Board in 2002, hospital executives failed to rank physician-hospital relations in the top 10 items of their agendas. Instead topics such as staff shortages, patient satisfaction, holding the line on costs, improving medication

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safety, expediting patient flow through the system and growing of existing and new revenue sources ranked highest on their radar screen (Healthcare Advisory Board CEO Fax Poll, 2002). While all of the above top agenda items are important initiatives, physician satisfaction, loyalty, support, and cooperation are essential to advancing clinical operational and growth goals over the long term.

After reviewing the related literature, it is evident that hospitals must respond to the healthcare market reality of customer satisfaction playing a foundational part of their future survival. It is well known by healthcare institutions that customer satisfaction plays a foundational role in financial stability and long-term survival. While hospitals have made significant strides in recognizing and addressing the patient and employee satisfaction area, many still struggle with the customer base relative to physician satisfaction. Despite the changing economics of healthcare, physicians continue to play a substantial role in "getting the customer in the door." Recognizing that physician satisfaction will continue to play a major role in hospitals economic future, key drivers of physician satisfaction must be understood and addressed in the healthcare industry. Therefore, it is strategically necessary for hospital administrators to investigate the key elements of physician satisfaction specific to their institutions.

Need for the Study

As the landscape of healthcare continues to change at a rapid pace, it is obvious that hospital administrators must embrace new strategies and behaviors to maintain fiscal stability and ultimately survive. Reimbursement changes, the increasing power of customer choice, and the key foundational role physicians play in assuring hospital patient volume all support the need for exploring strategies to keep physicians satisfied

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with the ultimate goal of maintaining and growing market share. The need for a study exploring what key factors drive physician satisfaction is an integral component of hospital strategic activities necessary to identify opportunities and competitive weaknesses relative to physician satisfaction.

Overview of Research Design and Methodology

Sample

The sample of the study consisted of 104 randomly selected physicians, using a random numbers table, on the physician medical staff of one Midwest hospital. The hospital provided an overall list of 532 eligible physicians. Participants in the survey consisted of 84.6 % males and 15.4 % females. Table 1 provides a breakdown of participants by age and number of years as a practicing physician.

Table 1

Percentage by Age and Number of Years as a Practicing Physician

Age		Number of years as a practicing physician	
Under 35	7.7%	Over 20 Years	15.4%
35-44	28.8%	11-20 Years	28.8%
45-54	45.2%	5-10 Years	26.0%
55-64	16.3%	Less than 5 Years	29.7%
Over 65	1.9%		

Ages of respondents were as follows: under 35 (7.7%), 35-44 (28.8%), 45-54 (45.2%), 55-64 (16.3%), and over 65 (1.9%). Number of years reported as a practicing physician were reported as follows: over 20 years (15.4%), 11-20 years (28.8), 5-10 years

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(26 %), and less than 5 years (29.8%). There were two refusals to participate in the survey from the sample and four calls were abandoned after three failed scheduled appointments. Those refusals and abandoned physicians were randomly replaced with alternative physician participants.

Instrumentation

One of the country's top two firms specializing in physician satisfaction relative to hospital practice research was retained by the hospital to assist hospital administrators' in facilitating a key organizational strategic initiative related to being a premier place for physicians to practice medicine. Instrumentation pertained to an 83-question telephone interview conducted by professionally trained interviewers (see Appendix A). Throughout the survey, evaluations were taken on a 5-point scale of "excellent," "very good," "good," "fair," and "poor." Several of the questions were open-ended, "Yes/No," or brief narrative responses. The narrative responses were not considered in this study.

Content validity. The relevant portion of the instrument was established by a panel of five physician experts consisting of general medicine and surgical specialties. Verbal consent was obtained by the researcher from the panel to participate in the content validity study. Participants were gathered at a hospital conference room free of distractions. The physicians were instructed to rate the importance of each item as it pertained to measuring physician satisfaction. It was reiterated that they were not to respond to the instrument like a sample participant; rather, they were to respond to each item as it related to the perceived importance of the item relative to physician satisfaction. Care was taken to assure no interruptions or distractions while the participants completed the instrument.

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Each physician responded to the same instrument utilized in the study with the exception of the item ranking scale and instructions for completion. Analysis was performed only for the four items that were utilized in the study. Since the number of remaining items was large, no analysis was performed relative to these remaining items. Means and standard deviations were computed for each of the four items.

Instrument reliability. The test-retest reliability of the relevant portion of the instrument was established through two administrations of the entire instrument to 26 physicians. Physicians who had not previously participated in the study were randomly selected to complete the pretest and posttest instrument. Survey methodology was repeated in an identical manner by the same company performing the initial research study. The initial "testing" (pretest) was performed and the second testing (posttest) was repeated at time intervals of 7 days. Pearson product-moment correlation coefficients (r) were computed and interpreted for each pre-post paired item.

Design of the Study

Distribution of physicians' satisfaction scores were described. Relationships between physician satisfaction in terms of a place to practice medicine and hospital administrators' willing-ness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care were determined. The data were collected over a 6-week period. The qualitative response questions were not considered in this study.

Data Analysis

Data were analyzed utilizing the Statistical Package for the Social Sciences. Statistical techniques are described as follows as they corresponded to the research

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questions of the study:

1. A multiple regression analysis using the "enter" method was performed in order to determine the relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

2. The β values of multiple regression analysis were utilized in order to determine the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining two selected hospital practice variables.

3. Pearson product-moment correlations were computed to determine the linear relationship between the physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

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CHAPTER II

REVIEW OF RELATED LITERATURE

The following review of literature represents a comprehensive, representative sample of research related to the construct of customer satisfaction as it specifically relates to healthcare. The studies focus on the following four key constituency customer bases relative to the healthcare industry: patients, employees, third party payers, and physicians. This chapter provides a general overview of customer satisfaction followed by a summary of the literature specific to the customer bases noted above with a concentrated focus on the literature related to the physician as hospital customer relative to satisfaction.

Overview

Healthcare throughout the 1990s and into the 21st century continues to undergo profound changes regarding reimbursement, staffing shortages, and the struggle to maintain and increase market share. The phenomenon of customer satisfaction is a foundational component in today's consumer-driven marketplace. Businesses in all industries focus on the quantification of customers' assessment of services and products because they understand that customer opinions shape the competitive marketplace and determine business survival. Customer satisfaction can be defined as "a sense of content-ment that occurs when one's expectations are fulfilled or even exceeded" (Surveytools, 2002). The healthcare industry is especially sensitive to customer satisfaction. Small increases or small decreases in customer satisfaction can have a dramatic effect on

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hospitals' profitability. While many factors impact a hospital's fiscal survival, the fundamental issue rests with patient volume. Decreased patient volume ultimately equates to lower revenues. The need to focus attention to the arena of customer satisfaction is an integral component of hospital strategy. This overview provides a brief summary of patient, employer, and payer customer satisfaction relative to the role they play regarding hospital fiscal survival. The remainder of the section will focus on the research related to physician satisfaction, the focus of this research project.

In times of a turbulent healthcare environment, hospital administrators find themselves challenged to implement a business strategy that addresses declining revenues coupled with increasing costs, all while increasing customer satisfaction of key stakeholders as a foundational strategy to maintain market share. Efforts to achieve these objectives are multifocused on operational efficiencies, new revenue streams, and maintaining/growing a core customer base. Hospital administrators focus their efforts related to customer satisfaction around four core stakeholders: the patient; physicians who practice medicine at their hospitals; the groups that pay the bills, commonly called third-party payers; and hospital employees (Fottler, Ford, & Heaton, 2002; Mycek, 2001; Oswald, Turner, Snipes, & Butler, 1998; Press, 2002; Yavas & Shemwell, 2001). The following literature review describes the key stakeholders in healthcare relative to the customer satisfaction literature concluding with the focus of the research project, physician satisfaction.

Patient Satisfaction

While physician satisfaction is the cornerstone relative to ultimate hospital fiscal stability, a plethora of literature exists regarding patient satisfaction related to healthcare.

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Scardina (1994) generically defined patient satisfaction as "the degree of congruency between a patient's expectations of ideal care and his or her perceptions of care" (p. 39). Healthcare, in many respects, is no different than any other service-oriented venue, such as McDonalds, Nordstrom's, or Southwest Airlines. They all provide services to customers. What was different about patient satisfaction, until the last several years, was the philosophy that patients were not really customers in the true sense of the word despite the reality that healthcare is the world's largest service industry. In most other service industries, customer service is not an option but a critical long-term survival strategy.

The terms customer and patient are not viewed as interchangeable by many hospitals. The term "patient" can be described as someone who receives medical services from healthcare providers (Fotter, Ford, & Heaton, 2002). The primary focus from hospitals was, and to some extent remains today, on the clinical care that is rendered with less attention paid to the patients' total healthcare experience. The literature strongly supports that hospitals who focus on the total healthcare experience, similar to the manner in which a 5-star hotel or Nordstrom's strives for total service to their patrons, realize increased patient satisfaction which ultimately equates to increased market share (Fotter, Ford, & Heaton, 2002; Press, 2002).

Until the last 10 years, hospitals' focus on patient satisfaction was narrowly focused more on meeting patients' clinical or technical needs such as medication safety and expertise in performing procedures rather than striving to meet their needs as full service healthcare customers which includes clear, culturally relevant, and timely information (Kenagy, Berwick, & Shore, 1999). Less attention and effort was exerted on the patients' total healthcare experience, which does not begin in the hospital bed, but

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rather begins prior to admission and is not completed until the patient is home and the bill is paid. This total patient experience encompasses the personal service side of care and not only focuses on the patients' needs but their family members needs as well.

The literature strongly supports key influences such as the patients' perception of the nursing staff, the flow of hospital services and the environmental appearance as significantly affecting the patients' satisfaction with the services they receive (Bitner, 1990; Chang, 1997; Fottler, Ford, & Heaton, 2002; Gotlieb, 2000; Press, 2002; Redmond & Sorrell, 1999; Wolfe, 1999). It is well known throughout the healthcare industry that satisfied patients lead to improved financial outcomes, reduced risk management claims, decreased staff turnover, and increased patient loyalty (Fottler, Ford, & Heaton, 2002; Ganey & Drain, 1998; Dingman, Williams, Fosbinder, & Warnick, 1999; Hickson, Clayton, Entman, Miller, Githens, Whetten-Goldstein, & Sloan, 1994; Press, 2002; Press, 1986; Redmond & Sorrell, 1999). All of these factors are significant determinants of repeat business. The preponderance of evidence suggests that healthcare institutions that are able to identify patient-related problems from the patients' perspective and take action to remedy those problems realize increased market share growth (Burns, 1998; Heyer & Hite, 1996; Mycek, 2001; Press, 2002; Press & Pollock, 1996; Yavas & Shemwell, 2001). Bain Consulting, based in Boston, reports that a 5% improvement in a hospital's patient satisfaction level can boost profits by 25% (Stout, 2001).

Today's savvy consumer is equipped better than ever to possess knowledge and to access information regarding the quality and value of the care they seek. Today's consumers want healthcare choice, control, and information. The patient/consumer is very familiar with what constitutes "customer service" and has recently begun to evaluate

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healthcare similar to other types of commodities. Today's healthcare consumer takes for granted clinical skill excellence but expects such service excellence as personalized care, prompt attention, exhibited professionalism, frequent communication, respect, consideration of privacy, and clear concise information (Fotter, Ford, & Heaton, 2002; Press, 2002).

While patient satisfaction has always been a focus of healthcare organizations, the real effort and focus on the patient began in the late 1980s. External pressures, such as the industrial quality movement, forced hospitals to focus on clinical care outcomes with the reality of publicly reported outcomes looming in the future. The empowerment of the patient as customer also began to play an increased role as the World Wide Web began to take off and prospective patients began to realize they had a voice in their care. Finally, hospitals began to realize the importance of reconsidering their past myopic focus on physician and third-party payers and widen their scope to recognize the impact of patient satisfaction on their market share and financial stability.

Today, patient satisfaction comprises a serious core strategic component of hospital executives. Rationale for increased hospital focus on patient satisfaction stems from the realized benefits satisfied patients bring to hospitals such as higher quality of care outcomes, increased staff satisfaction, increased financial health, and lower risk of punitive lawsuits. There are increasing mandatory requirements for hospitals to measure patient satisfaction (Press, 2002; Strasser & Davis, 1991). Not surprisingly, hospitals are not the only healthcare related entity focusing on patient satisfaction. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), many state hospital associations, and purchasers of healthcare services are requiring hospitals to measure patient satisfaction (Herzlinger, 1997; Press, 2002). Recently the Centers of Medicare and

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Medicaid Services announced that it would be mandatory for hospitals to participate in a standardized patient satisfaction survey tool to receive Federal reimbursement dollars.

Patient's Perceptions of Quality of Care

The literature is robust with a multitude of benefits for those healthcare organizations that achieve and maintain high levels of patient satisfaction. Quality of care is notably present in the literature specific to patient satisfaction (Colie, 2002; Kenagy, Berwick, & Shore, 1999; Press, 2002; Scardina,, 1994; Strasser & Davis, 1989; Zifko-Baligat & Krampf, 1997). Quality of care can be defined as the worth or excellence of various facets of medical care such as technical skills and the interpersonal experiences between the provider and the patient (Davies & Ware, 1988). The literature is quick to recognize the issues relative to a patient's ability to evaluate the construct pertaining to quality of care (Colie, 2002; Davies & Ware, 1988). Coile (2002) describes how patients judge quality of care in three dimensions: patient intimacy, efficiency and cost effectiveness, and service superiority are the key criteria that patients use to assess their healthcare experience (Coile, 2002). Determinants of patient intimacy include hospital staff behaviors such as sensitivity and responsiveness to their needs (Coile, 2002). Efficiency and cost effectiveness is measured by the patients' perception to prompt attention and "value" pricing (Coile, 2002). Lastly, Coile (2002) states that patients judge quality service/care in terms of service superiority as measured by how well their experience consistently exceeds other healthcare competitors.

Davies and Ware (1988) reported a strong correlation (.71) between patient satisfaction and overall quality of care. Since that time, several others have studied this relationship with similar findings supportive of quality of care being positively related to

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patient satisfaction (Nelson, Rust, Zahorik, Rose, Batalden, & Siemansk, 1992). Other studies exploring the ability of patients to judge the construct of quality of care support the hypothesis that patients can indeed judge quality of care based upon their perception of care measured by the personal attention paid to them (Davies & Ware, 1988; Kenagy, Berwick, & Shore, 1999; Press, 2002; Zifko-Baligat & Krampf, 1997). Zifko-Baligat and Krampf (1997) created a conceptual model encompassing the components of structure, process, and outcome to describe patients' perceptions of quality of care as it relates to the care they received during their hospital encounter. Relative to patient care in hospitals, "structure" is defined as the physical environment specific to appearance and various amenities such as food, parking, support groups, and general aesthetics of their surroundings including a second level that encompasses the accuracy and efficiency of the billing process (Zifko-Baligat & Krampf, 1997). Patients' perceptions relative to "process" included various one-on-one interpersonal service interactions that they encounter throughout the healthcare experience (Zifko-Baligat & Krampf, 1997).

Lastly, the "outcome" component of Zifko-Baligat and Kramph's (1997) model describes the result of the process experiences in which they decide if the outcome of care met their expectations in terms of technical quality, reliability, and illness recovery. Conclusions from this study looking at the various dimensions of structure, process, and outcome reveal that patients evaluate quality of care multidimensionally, ranging from the appearance of physical plant environment to each interaction with care providers and their perception of physical and emotional cure (Zifko-Baligat & Krampf, 1997). Supporting previous literature noting that technical quality is assumed, Press (2002), a leader in patient satisfaction research, ranks the following service behaviors as key items that

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patients use to rate their hospital care experience:

1. Good food satisfies patients' more than bad food.
2. Friendliness of staff is more important to patients than good food.
3. Open and frequent communication between staff and patients creates greater patient satisfaction and means more to patients than staff friendliness.
4. Empathetic staff enhances patients' satisfaction ratings of staff communication.

Additional studies soundly support the above results and indicate that the single most important action that hospital administrators can take to maintain quality from the patient's perspective is to deliver a total satisfactory experience beyond clinical/technical expertise.

Patient Satisfaction and Hospital Profitability

Not only is patient satisfaction linked to quality of care, satisfied patients also play a large role in hospital financial strength. It is well documented how a single dis-satisfied patient can impact potential future revenues (Press, 2002; Rosselli, Moss, & Luecke, 1989; Strasser & Davis, 1991). Strasser and Davis (1991) report that, for every one dissatisfied patient, they will tell 10 to 12 others of their negative experience and those 10 to 12 will tell several more, and so on. In reality, this one patient could affect up to 120 potential patients' decision to seek service at their hospital, which ultimately equates to lost revenue. A study examining the relationship between patient quality of hospital care ratings and hospital profitability noted that 10%-29% of the variability in hospital financial metrics such as earnings, net revenue, and return on assets can be explained by patients' ratings of quality (Nelson et al., 1992). These results are consistent with empirical research outside of the healthcare field that demonstrates increased

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customer satisfaction is linked to high profitability (Nelson et al., 1992)

The link between patient satisfaction and hospital profitability is undeniable. A multitude of studies exist that link patient satisfaction to increased profitability (Kenagy, Berwick, & Shore, 1999; Nelson et al., 1992; Press, 2002). Nelson et al. (1992) noted a strong relationship ($r = .80$) between hospital fiscal performance and patient satisfaction ratings of care. Nelson et al. (1992) further reported that patients' perceptions of quality expressed as satisfaction explains up to 30% of hospital variability in profitability and that even small increases in patient satisfaction ratings can boost hospital bottom lines by millions of dollars. One of the largest studies examining the relationship between profitability and patient satisfaction was recently conducted by Press and Ganey (2002). A significant correlation ($r = .23$; $p < .001$) was found between profit and patient satisfaction.

Other recent evidence demonstrating the increasing power of the patient includes the reality of some third-party payers providing their employees with an annual dollar amount and allowing their employees to independently choose their own healthcare provider versus the employer dictating the hospital their employees must use (Hertzlinger, 1997; Press, 2002). This tactic serves to achieve several objectives of the third-party payer. First, it increases employee satisfaction by giving them increased choice and control over their healthcare services. Secondly, by putting the choice of health plan in employees' hands, the third-party eliminates the legal risk of being sued by an employee based upon service failures of a hospital they were mandated by their employer to obtain services. Not surprisingly, increased patient choice necessitates that hospital administrators increase their focus on patient satisfaction.

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Patient Loyalty and Willingness to Reuse Hospital Services

Several studies exist reflective of the depth of patient loyalty and willingness to reuse hospital services when they are satisfied with the care they receive (Jones & Sasser, 1995; Gitomer, 1997; Press, 2002). Studies support the fact that patients will be loyal to a specific hospital even if they have had an isolated negative experience or are deluged with competitor marketing strategies (Gitomer, 1997). A recent example of this would be the transplant incident at Duke University Hospital where a young girl received the wrong organs, due to a mistake by the hospital, and then died. Although the public was outraged by this tragic error, few would change their choice of Duke University Hospital if they were patrons of the hospital prior to the incident.

Interestingly, as many states and public organizations are mandating hospitals to publicly publish clinical outcome data such as mortality and complication rates, health-care consumers have yet to pay much attention to that type of data. Instead, they continue to rely on their own personal experiences and those of friends to choose one hospital over another when choice is an option (Hibbard & Jewett, 1997; Press, 2002). A 2000 study by the Kaiser Family Foundation and the Agency for Healthcare Research for Quality notes that 62% of Americans would choose hospital familiarity over the quality ratings of a particular hospital (Clinical Advisory Board, 2002).

Another key reason why hospital administrators might want to pay more attention to patient satisfaction is the increasing reality of a litigious society with never before seen monetary payouts from hospitals. The literature contains ample evidence to support the fact that anger, not injury, is the trigger for most legal suits (Troyer & Salman, 1986). The studies support that hospitals that have empathic staff and good interpersonal skills

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have fewer malpractice claims (Levinson, Roter, Mullooly, Dull, & Frankel, 1997; Press, 2002; Strasser & Davis, 1991). As a result of these data, hospitals are beginning to invest financial resources in staff training related to empathy and the importance of communication to patients and their families.

Employee Satisfaction

Patients are not the only customer cohorts to which hospital administrators are paying attention. Employee satisfaction is increasingly becoming a key focus of hospitals. Similar to generic satisfaction definitions, job satisfaction is defined as "the feelings an employee has about the job in general" (McNeese-Smith, 1996, p. 163). The reality of rising hospital expenses and declining revenues paired with a competitive market environment are forcing hospital administrators to increasingly place more emphasis and resources around the goal of maximizing employees' productivity, job satisfaction, and employee commitment to their organization. The rationale for increased administrative focus on employee satisfaction is multi-dimensional. Research has shown that employees who experience job satisfaction tend to contribute more toward organizational goals relative to resources consumed (i.e., productivity) and tend to not leave their place of employment (McNeese-Smith, 1996; Press, 2002). Both increased productivity and decreased turnover of employee base are attractive motivators for administrators to focus on employee satisfaction and retention relative to a strategy to decrease operational costs. Replacement of nursing staff is very costly to hospitals. Replacement costs of a single registered nurse can average up to 11% of the mean total of a registered nurse's salary (Jones, 1990). Start-up on-the-job training for a single nurse in a critical care unit has been reported to average between $15,000 and $20,000 (McNeese-Smith, 1996).

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Several factors are noted to affect employee job satisfaction. Blegen (1993) reports, in a meta-analysis related to nursing job satisfaction, that communication with supervisors, autonomy, recognition, and peer communication is strongly correlated to employee satisfaction. Stress and routinization were negatively correlated with employee satisfaction (Blegen, 1993).

Employee Satisfaction Impact on Patient Satisfaction

Aside from the obvious financial benefits of increased productivity and decreased turnover, employee satisfaction has been demonstrated to impact patient satisfaction. An abundance of literature exists from service industries outside of healthcare supporting the hypothesis that satisfied customer bases are largely dependent on satisfied employee bases (Atkins, Stevenson-Marshall, & Javalgi, 1996; Kaldenberg & Regrut, 1999). Relative to the healthcare industry, several studies have demonstrated a positive relationship between employee job satisfaction and patient satisfaction as well as quality of care (Atkins, Stevenson-Marshall, & Javalgi, 1996; Blegen, 1993; Kaldenberg & Regrut, 1999; Scardina, 1994). A large study by Kaldenberg and Regrut (1999) examined the relationship between employee satisfaction and patient satisfaction. Findings indicated that hospitals with the lowest patient satisfaction had the lowest employee satisfaction ($r = .89$) (Kaldenberg & Regrut, 1999). Further examination of key factors related to employee satisfaction revealed that issues associated with wages ($r = .53$), benefits ($r = .35$), and physical working environment ($r = .50$) were mildly correlated with employee satisfaction; however, issues relative to communication from administration ($r = .70$), respect and responsiveness to problems by manager ($r = .69$), and helping employees feel pride in the work they do ($r = .70$) were highly correlated with employee satisfaction

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(Kaldenberg & Regrut, 1999; Press, 2002). A study conducted by Atkins, Marshall, and Javalgi (1996) demonstrated a strong relationship between nurse satisfaction and patients' intent to repeat business or recommend to another person.

The research relative to employee satisfaction suggests that today's employer is challenged to look beyond the past employee retention strategies, such as wages and benefit competitiveness, as a means to improve patient and employee satisfaction. Rather, hospitals are being challenged to review their organizational cultures with respect to management styles, employee motivational strategies, and the workplace environment in general. Hospitals are focusing on the employee beyond the traditional salary and benefit focus and implementing deeper strategies, such as employee satisfaction surveys, management development to facilitate improved communication between supervisor and employee, and convenience amenities, such as childcare and flexible work hours.

Third Party Payers Viewed as Hospital Customers

As hospitals are increasingly becoming more responsive to patient and employee needs and their expectations, administrators are also paying more attention to third party payers, i.e., the employer who often makes up the difference for substandard Medicare and Medicaid reimbursement to hospitals. While a typical hospital payer mix may vary depending on location, all hospitals rely, to a varying degree, on commercial employer contracts to help supplement revenue gaps sustained from low Medicare and Medicaid reimbursement. As Medicare and Medicaid hospital reimbursement continues to decline, a key focus of most hospital administrators is retention of non-Medicare business, which provides better reimbursement and assists in filling the revenue gap sustained from Medicare and Medicaid. Thus, the third party payers, the employers, become a key focus

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relative to maintaining a growing commercial market share.

As employers' insurance premiums reached an estimated $450 billion in 2000, still many employees remained unhappy with the coverage and the quality of healthcare they receive (Herzlinger, 2002). Herzlinger (1997), a well-known healthcare analyst, suggests that the key to healthcare reform lies with the business community and a move to embrace a new healthcare coverage model which places control over costs and care directly in the hands of the employees. Herzlinger's (1997) model suggests that by letting employees have choice and control relative to healthcare decisions, the competitive forces that often stimulate productivity and innovation in other consumer-driven Industries will have the same effect on the healthcare industry. This type of model creates a great deal of stress for healthcare organizations as healthcare has been relatively protected from consumer control by employers and the government. As a result of this shielding and lack of external pressure to change the working and thinking of healthcare management, costs are out of control and consumers of working age still have little choice regarding where they receive their healthcare services.

As more and more employers adopt employee health plan choice, Herzlinger (1997) foresees that providers of healthcare will be forced to respond in the following ways: (a) increased coordination of care by providers specific to disease or patient groups, (b) integrated information records that reconcile currently disparate patient information, and (c) personalized medical technologies that promote individualized care with the result being better quality of care and a more productive healthcare system. All three of these outcomes are threatening to healthcare. This is not because they are wrong goals; in fact, they are exactly what the best quality of care should emulate.

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Yet, today's healthcare environment is not masterfully coordinated to treat the complex diseases of our population and to share the information beyond a single provider in the majority of healthcare settings. Instead, it is centered around individual doctors and distinct episodes of care with little interaction between one another (Herzlinger, 1997). A reform such as Herzlinger's (1997) would create a huge challenge for healthcare.

Herzlinger's (1997) suggestion of consumer choice regarding healthcare benefits, however, is beginning to catch on in some parts of the country. This makes hospital administrators very nervous; hence, third party payers, particularly employers, remain a key focus regarding relationship building.

Physician Satisfaction

Despite the important role that satisfied patients, employees, and third party payers play in the healthcare finance landscape, the most important hospital customer continues to be the physician, as he or she serves as the major gatekeeper for a large majority of hospital patients. Most often the physician plays a prominent role in deciding where the patient will receive hospital care, and patients will go where their physician prefers, when possible. And while the critical nature of physician satisfaction is well known, far less is reported in the literature regarding physician satisfaction. Hospital attention to physician satisfaction was and continues to be a major focus of hospitals, because physicians are often affiliated with more than one hospital and they have the decision power to determine where their patient receives services. The Healthcare Advisory Board reported in 2002 that 85% of patients choose their hospital based upon their physician's recommendation.

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With physicians playing such a major role in determining hospital volume numbers, they command a great deal of power and influence as key hospital customers. Even small increases or decreases in patient volume can have a dramatic impact on the profits of the hospital. Hirschman (1970) described two operational indicators of power that physicians possess to exert influence on hospitals. Physicians can express their dissatisfaction with policy, performance, and the leadership by choosing to take their patients elsewhere or by verbally expressing their opinions to administrative leadership. Power is also demonstrated in their role in establishing a hospital reputation. The image of a hospital is heavily formed not only by the experiences of patients and employees but by physicians who practice medicine at those hospitals (Smith, Reid, & Piland, 1990).

O'Conner and Annison (2002) bring insightful dialogue regarding the differences between physician and hospital administrators. O'Conner and Annison (2002) noted that their core training differs, which leads to varied perspectives regarding how healthcare is viewed. A physician's primary trained role is to diagnosis and treat disease focusing on short-term results. Additionally, physicians are accustomed to autonomous decision-making regarding care for their patients. Conversely, successful hospital administrators focus on broad organizational objectives, which encompass healthcare outcomes in a much wider scope. One can see how the notion of increased collaboration toward common goals increases skepticism from its inception.

Key Elements Relative to Physician Satisfaction

The literature references several key hospital elements that lead to physician satisfaction (Ambrose, 1977; Stevens, Diederiks, & Philipsen, 1992; Okorafor, 1983). All of these factors focus on three different roles of the physician: as customer of the

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hospitals' services; as provider of hospital services to patients; and as partner with hospitals regarding organizational decision-making. As customers of hospitals, physicians desire competent and responsive staff and systems, easy access to services, and cutting edge technology (Ambrose, 1977; Scharf & Caley, 1993; Smith, Reid, & Piland, 1999; Weiss, 1983). As providers of the hospital services, the literature consistently notes that physicians desire easy access for their patients; current technology, equipment, and facilities to provide care to their patients; and competent care provider staff whom they can depend on to relay accurate and timely information about their patients in their absence (Ambrose, 1977; Scharf & Caley, 1993; Smith, Reid, & Piland, 1999).

Other key factors noted in the literature that increase physician satisfaction include modern equipment and facilities to perform their job, skilled and competent nursing staff to care for their patients, convenient hospital location, and supportive, accessible, responsive administrative leaders (Coddington & White, 1986; Smith, Reid, & Piland 1990). A 2002 physician survey conducted by the Clinical Advisory Board noted competency of nursing staff as the second most important driver of physician/hospital loyalty.

Finally, physicians desire to be part of decision-making within the hospitals where they practice. Several studies cite physician relationship with hospital administrators as a key influence regarding physician satisfaction (Mack, 1998; Stevens, Diederiks, & Philipsen, 1992). Much of the satisfaction literature notes that physicians perceive they are not as engaged in the decision-making as they would like to be (Ashmos, Duchon, & McDaniel, 2000; Rovinsky, 2002; Smith, Reid, & Piland, 1990). Physicians desire good communication with hospital leaders and fear loss of practice autonomy related to hospital bureaucratic rules and regulations. In addition, physicians desire administrators

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who are responsive to their needs. Finally, they want to play a meaningful role in formulating hospital strategy. In a study of 50 hospital Chief Executive Officers (CEOs) and 50 physicians by Premier, Inc., a large hospital purchasing group, 40% of the physicians and 20% of the CEOs gave fair to poor ratings regarding efforts of their hospitals in keeping them informed, listening to their needs, and giving them a significant role in setting strategic vision (Jaklevic, 1996).

At the 2000 American College of Healthcare Executives' Congress on Healthcare Management in Chicago, Barbara LeTourneau, past president of the American College of Physician Executives (as cited by Egger, 2000, p. 18), highlighted the following common physician desires of hospitals. Physicians want:

- hospital to be convenient and efficient to use;
- to know which nurses are caring for their patients;
- timely, accurate information about patients when they need it;
- to be involved in a meaningful way in planning and having plans that take their interests into account;
- not to attend meetings, but having input at those meetings; knowing whether their input is just for information or will it have an impact on decisions;
- excellent care for patients;
- hospital staff who are respectful of their time, resources, and role;
- technically excellent staff who are enthusiastic;
- hospital administrators who keep their employees happy;
- an open and deliberate environment that balances business activities with patient needs;
- a philosophy of mutual benefit.

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Demographic Factors Relative to Physician Satisfaction

Several demographic factors are also consistently noted in the literature as determinants of physician satisfaction. Hospital size has been noted to be a determinant of decreased physician satisfaction. Research has indicated that large size hospitals tend to promote dissatisfaction among physicians due to increased complexity of systems and lines of communication which in turn may foster impersonal and dissatisfying work experiences of physicians (Burns, Andersen, & Shortell, 1990; Schulz & Schulz, 1988).

Physician age is also widely reported with regard to job satisfaction. Burns, Andersen, and Shortell (1990) report that work satisfaction increases over one's lifetime noting as people mature with age, they gravitate to the type of organizations and jobs at which they like to work. The organizational literature base also reflects age as being positively related to increased organizational commitment (Burns, Andersen, & Shortell, 1990). Schulz and Schulz (1988) note a positive association between increased physician satisfaction and the number of years the physician has practiced at a particular hospital. Older physicians with established hospital practices are notably less affected by competitive marketplace changes and possess greater leverage to obtain desired assistance and resources from hospitals than do younger physicians (Schulz & Schulz, 1988).

Gender and medical specialty also impact physician satisfaction with females reporting greater dissatisfaction and conflicts than their male peers (Mackesy, 1993). Some explain this increased dissatisfaction due to age and sex discrimination by the older, more numerous male physician peers and hospital administrators (Mackesy, 1993) Medical specialty has also been shown to decrease physician satisfaction with over-supplied specialties reporting greater dissatisfaction with hospitals. Specialty physicians

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attribute this to conflicts over gaining access to the hospital and having less input into decision-making (Burns, Andersen, & Shortell, 1990).

While a collaborative relationship between hospitals and physicians may seem a simple task, Mintzberg (1997) notes that hospitals are incredibly fragmented places in which four worlds view things quite differently: the trustees, the physicians, the managers, and the nurses. Mintzberg's research indicates that, for the most part, these four entities virtually ignore each other and attempt to problem solve separate of one another. Each entity tends to be concerned with its own individual cohort problems with no mechanism for solving systemic problems (Ashmos, Duchon, & McDaniel, 2000; Mintzberg, 1997).

Historical Relationships Between Hospitals and Physicians

It is difficult to gain a cogent understanding of the hospital administration-physician relationship without an awareness of past changes in healthcare. The dynamics of a turbulent healthcare environment over the last 15 years have facilitated Mintzberg's (1997) observation and created a climate of mutual distrust in many healthcare communities. The relationship between hospitals and physicians began to change in 1983 when the government imposed a new payment system for all healthcare providers. Prior to 1983, hospitals and physicians functioned autonomously under a fee-for-service payment system from the Federal government and private commercial insurance payers. Under this payment model, physicians had carte blanch regarding what testing they ordered for a patient and how long the patient would stay in the hospital without any interference from the hospital. Under this dual operating system, the physician managed the patient care and the hospital managed the operations end of the relationship (Curtis, 2001). During

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this time period, both the hospital and the physicians functioned harmoniously as partners in healthcare and each were handsomely paid despite their autonomous roles for these services (Burns, Andersen, & Shortell, 1990; Curtis, 2001).

Unable to control rising healthcare costs, Medicare and many private insurance carriers implemented a new payment structure in 1983 that no longer paid physicians and hospitals on a fee-for-service basis. Instead, reimbursement was based upon an episode of care in which government paid a bulk amount to the hospital for a specific disease and a flat fee per visit to the physician regardless of how many resources were used. In essence, the new payment structure had pitted the two major stakeholders at opposite ends of the spectrum regarding payment for service incentives. Hospitals were rewarded monetarily for preserving resources, while physicians continued to be rewarded for providing the patient care regardless of resource use (Curtis, 2001). This divergence in payment methodologies mandated hospital operations to become much more efficient and cost effective to sustain profitability. In order to cut costs, hospitals were forced to increase their involvement in managing patient care by imposing increased pressure on physicians to decreased length of hospital stays, order less testing on patients, and to perform testing not related to the patient's current condition as an outpatient. Hospitals also began to focus on reengineering healthcare efficiency as well as procurement of advanced medical technology to achieve cost savings and capture market share (Smith, Reid, & Piland, 1990). Ironically, as hospitals were becoming more economically dependent on physicians for admitting patients, they were also at risk for physicians' decisions regarding utilization. Burns, Andersen, and Shortell (1990) summarized the reason for their tenacious relationships by saying "what the hospital gains by reducing stays and costs, the

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physician now loses" (p. 532). This change in incentives and mandated interdependence continued to chisel away at physician/hospital relationships.

From 1984 to 1990, hospitals, mostly without input or involvement of physicians, experimented with several failed strategies to control costs such as reactive management tactics versus planned strategic management, rapidly changing adoption and termination of strategies, and a trial-and-error approach to manage rising costs (Smith, Reid, & Piland, 1990). Not surprisingly, these changes in hospital operations raised the existing tensions between physicians and hospitals related to patient care issues. Traditional physician-controlled patient care decisions, such as the need for patient admission to the hospital, diagnostic and treatment regimens, and discharge practices related to length of stay, were now being questioned by the hospital related to appropriateness of care and resource utilization. Physicians struggled to work effectively with hospital administrators to achieve cost savings while maintaining quality of care. Much of the time, the strategy and actions of the hospital did not include physician input into the decisions and actions that hospital was implementing (Smith, Reid, & Piland, 1990). During this time period, relationships between hospitals and physicians moved from a historical relationship of symmetry to a more competitive environment in which each viewed the other as a rival (Curtis, 2001; Smith, Reid, & Piland, 1990).

Adding to the tenacious physician/hospital climate was the emergence of managed care in 1990. By the beginning of the 1990s, employers, along with state and federal governments concerned with continued rising healthcare costs nearing 14% of the gross domestic product, adopted the concept of managed care (Curtis, 2001). Managed care embodied the practice of cost-containment, physician networks to provide patient

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care at a discounted rate, and the demand for quality. With the rise of managed care came physician fears of contract lockout and financial loss initially prompting physicians to view hospitals as a potential strategic ally. Today, however, with managed care considered virtually ineffective and non-threatening, physician remembrance of hospital mismanagement and tactics to control costs continues to stifle hospital/physician relations.

During the 1990s it became clear to hospitals that physicians were the common factor in controlling costs and enhancing revenues and, thus, the key to adaptation and survival under a new reimbursement model was strategic initiatives to better manage relations with physicians (Smith, Reid, & Piland, 1990). In an attempt to increase cohesiveness with physicians, several initiatives, such as integrated delivery systems, were formed by hospitals in the mid 1990s. Integrated delivery systems strategy was to purchase physician private practices and align physicians' financial interests with those of the hospital with the overall goal of increasing market share, improving operational efficiencies, and increasing access to managed care contracts (Holm & Brogadir, 2000; Rovinsky, 2002). During the late 1990s, it became increasingly apparent that many IDSs proved to produce marginal value and in some instances were financial burdens with hospitals losing millions each year on employed physician contracts (Holm & Brogadir, 2000). Many agree that the inability of integrated delivery systems and other attempts to align physicians' interests with those of the hospital failed largely due to lack of governance and strategic planning foundations which adequately incorporated physicians' desires and perspectives (Rovinsky, 2002). Once again, hospitals continued to erode the trust factor by neglecting to lay the foundation and engage physicians in the decision-making process.

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Integration of Physicians Into Hospital Decision-Making

An abundant amount of literature exists regarding the need to integrate physicians into hospital organizational decision-making and strategies to facilitate physician/hospital relationships (Ashmos, Duchon, & McDaniel, 2000; Betts, 2002; Brown & Mayer, 1996; Hiltz, Hodges, Klein, Shapiro, Sundelius, & Wendling, 1996; Purtell, 2002; Rice, 2002; Rovinsky, 2002). Research performed by Ashmos, Duchon, and McDaniel (2000) regarding physician participation in strategic decision-making demonstrated that hospitals with increased physician participation in strategic decisions financially outperformed hospitals with less physician involvement. In addition, it was noted that hospitals embracing a systemic and aggressive approach to change reflective of intricate internal strategic planning, mutually established goals, and multiple stakeholder participation in decision-making versus a reactive approach were those hospitals who demonstrated increased physician involvement (Ashmos, Duchon, & McDaniel, 2000).

Many note that past efforts by hospitals to integrate physicians, while well intended, were not as effective because the integration attempt was made at too high of a level such as the Board of Directors and not at the operational levels of the organization, where the roots of key decisions are made (Chyna, 2001; Curtis & Morrison, 1996). Several key strategies to form a genuine partnership between physicians and hospital leaders are overwhelmingly apparent. Hospitals must first focus on creating a culture that rebuilds trust, honesty, integrity, and open communication (Curtis, 2001). The establishment of trust between physician and hospital leaders is a continual challenge due to past history. Behaviors and actions that build trust include offering physicians meaningful and early input into decision-making at all levels of the organization as well as complete

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disclosure of hospital finances (Chyna, 2001; Rice, 2002). Mutual goal setting and agreement relating to common visions, values, and strategies focusing on the patients welfare are also key elements noted in the literature (Egger, 2000; O'Conner & Annison, 2002). Concrete demonstration to physicians that the hospital's budget and capital spending is centered on helping physicians provide the highest patient care through investment in technology, by engagement of physicians in capital purchase decisions and by sharing the results of capital investments is also a key factor in engaging physicians.

Additional factors outside of hospitals' control are also creating bigger challenges in maintaining physician satisfaction with the practice of medicine as a whole. There is mounting anecdotal evidence that physicians are becoming increasingly dissatisfied with the practice of medicine in general. This phenomenon is not totally surprising given the critical change in the healthcare practice environment. A physician practice environment study conducted by the Massachusetts Medical Society in 2001 noted a 16% drop in the quality of physician practice environments between 1992 and 2001, with the greatest decline beginning in 1997. The principal drivers of this drastic change are economic related to drastic increases in malpractice insurance and the cost to practice medicine increasing faster than physician net income (Massachusetts Medical Society, 2002). The Bureau of Labor Statistics (2001) demonstrates that physician net income has failed to keep pace with inflation over the last 5 years leading to a steep deterioration of physician income and lifestyle expectations. Declining payments from all physician payer sources is the source of the current stagnancy in physician income. Medicare continues to reduce physician payments annually. In 2002 Medicare reduced physician payments by 4.9%, with continued reductions anticipated through 2005 (American Medical Association,

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2002). Compounding the problem of declining reimbursement is the swift rise in physicians' cost of doing everyday business. Between 1988 and 1998, average self-employed physician professional expenses increased 86% (American Medical Association, 2001).

Another large contributor to physician discontentment largely outside of hospitals' control is the well-publicized malpractice insurance premium increase crisis. The recent dramatic increase in physician medical malpractice insurance premiums is a major contributor to physician cost and declining personal income problems. On average, physician malpractice insurance premiums increased 54% between 1992 and 2001 (Massachusetts Medical Society, 2002). Most agree that this crisis will not dissipate any time soon. Rising rates are attributed to the unforeseen market forces such as the rising cost of reinsurance following the terrorist attack on September 11, 2001, the continued economic recession, and the increasingly sharp rise in malpractice jury awards (Cochran, Carolina Securities, LLC, 2002).

The changing physician practice environment only makes more difficult the challenges for hospitals to establish and maintain effective and beneficial physician relationships. As today's physician is even more pressured to increase productivity in order to maintain or increase their personal income, physicians become more reluctant to invest time in hospital-related development and strategic activities and are choosing to spend more time in their private practices. Other threats to hospitals' core business include the increasing numbers of physician entrepreneurs who are building specialty practice centers such as free-standing surgical centers or specialty surgical hospitals, or other specialty niche centers as an effort to grow personal income (Becker, 2001; Beckley, 2001). This is of particular concern to hospitals as reimbursement for surgical procedures is a major

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profit margin booster that many hospitals need to survive. Some hospitals have reverted to mandating exclusive admitting privileges which demand physicians severe ties at competing hospitals as a desperate attempt to lock-in referrals (Duff, 2002).

It is not surprising that hospitals are engaged in fierce competition for surgeon loyalty. The impact of surgeon defection is highlighted by a recent analysis which estimated a hospital could loose annual revenues of $1.6 million and $700,000 in bottom line profit with a single cardiac surgeon shifting half of his or her business to a competing hospital (Duff, 2002). Most hospitals have recognized the strategic importance of retaining loyalty and investing in service and satisfaction efforts to maintain the critical surgeon base of physicians.

Interestingly, in the face of such competition for physician loyalty, physician relations are not at the top of the list of priorities for a majority of hospital executives. In a hospital Chief Executive Officer fax study conducted by the Healthcare Advisory Board in 2002, hospital executives failed to rank physician-hospital relations in the top 10 of their agendas. Instead topics such as staff shortages, patient satisfaction, holding the line on costs, improving medication safety, expediting patient flow through the system and growing of existing and new revenue sources ranked highest on their radar screen (Healthcare Advisory Board CEO Fax Poll, 2002). Ironically, physician satisfaction, physician loyalty, physician support, and physician cooperation are essential to advancing these exact clinical operational and growth goals over the long term.

Obviously, the opportunity for physicians to participate in decision-making creates and builds trust among hospital administrators and physicians. The literature is clear that physicians desire the opportunity to participate in decisions that might

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ultimately impact their practice environment.

Physicians' Desire for Competent Caregivers in Their Absence

Another factor important to physicians is the skill and competency of the nursing staff who care for their patients. Considering that most physicians make hospital rounds once per day and actually spend less than 5 minutes with the patient, the physician relies on the nurse to clinically evaluate their patient status and provide quick intervention, when necessary, as well as alerting them when patient status changes occur. In essence, the nurse is the eyes and ears for the physician in his or her absence. The nurse carries a large responsibility in caring for the patient outside of general nursing tasks. A far greater responsibility is the ability to note subtle changes in patient condition and seek intervention prior to the patient experiencing an adverse outcome related to changes in his or her health status. The level of skill and competency possessed by nursing staff as it relates to physician satisfaction in a variety of care settings is well documented in the literature.

Okorafor (1983) researched several factors associated with physician satisfaction. He found that quality of the medical equipment, professionalism of staff, and quality of nursing care were important factors related to physician satisfaction. Research conducted over the next two decades continues to support the importance of the quality of nursing care as a factor associated with physician satisfaction.

Mackesy (1993) studied aspects of physician satisfaction at a rural community hospital. He found that while the responsiveness of the administration to physician concerns and needs ranked as the most important variable influencing physician satisfaction with this group, the knowledge and skill of the nursing staff was also an important and significant variable.

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Wolosin (2002) examined factors influencing physician satisfaction with surgical services. He noted that physician satisfaction with the surgical services area of the hospital is strongly associated with the nursing staff. This can be attributed to the nature of that work environment. Physicians in this setting work closely with and are very dependent upon the nursing staff.

Messinger and Wetter (2003) studied a variety of factors influencing physician satisfaction. They found that the quality of the customer service provided in terms of responsiveness and the quality of patient care provided were significant in terms of determining physician satisfaction. Because nurses are the primary providers of care in the hospital setting, they play a major role in terms of the quality of care provided and physicians rely heavily upon their competence as it relates to taking care of their patients.

Importance of Medical Equipment to Physicians

Decision-making is not the only important factor relative to physician satisfaction; the availability of medical equipment is also noted in the literature to be important to physicians. In light of today's advancements in modern medicine, it is not surprising that physicians and patients desire the most modern equipment and technology at the facility they provide or receive medical care. Hospitals are continually challenged to procure the latest technology for physicians to utilize in the care of their patients. It is not surprising that many hospitals are willing to acquire new technologies based upon strategic goals related to being a technological leader in their respective market and maintaining physician loyalty to their institution.

In 1998, hospitals in the United States spent more than one billion dollars for healthcare-related expenditures with a significant amount allocated to technology

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(Friedman, 2000; Sachdeva, 2001). The acquisition of new technology/equipment has not been without problems and significant financial challenges for hospitals. The surge of technological advancements in the 1990s brought about many challenges for healthcare relative to competition between healthcare provider venues such as other hospitals and outpatient centers who use the acquisition of medical technology as a strategy to shift physician practice patterns. Thus, procurement of new equipment and technology continues to be an important retention strategy relative to keeping physicians satisfied.

There is an abundance of literature critical of the healthcare industry for not using sound principles in adopting emerging technology but rather responding primarily to competitive threats of not having a service that is available elsewhere, or making purchases to please physicians without a true cost-benefit analysis, and giving into manufacturer pressure (Bloomfield, 2003; Cowan & Berkowitz, 1996; Taylor, 1995; Wagner, 1990).

Sparse support relative to the relationship between physician satisfaction and the availability of medical equipment was found in the literature. Colie (1990), a healthcare futurist, noted that hospitals who have modern technology and equipment tend to have greater competitive advantage both from a patient volume and physician recruitment aspect.

Summary

It is apparent that hospital administrators must be attentive to multiple customer bases to maintain and grow financial strength. The role of the patient satisfaction is evident in today's consumer-driven market. The sheer volume of literature devoted to the role that satisfied patients play in hospital financial viability is evidence hospitals are acknowledging the key role of the patient as customer. The literature regarding patient satisfaction

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denotes the power of the consumer and the myriad of positive results hospitals enjoy when their patient base is satisfied. It is increasingly apparent that satisfied patients will continue to play a major role as a foundational healthcare business strategy. Furthermore, as more and more consumers recognize they do have choices and base hospital selection on the clinical quality outcomes of specific hospitals and physician providers, healthcare will be forced to acknowledge the patient as a customer and implement strategies and actions that meet customer demands and expectations even more than they do today.

The literature also supports the role that satisfied employees lend to hospital fiscal health and the relationship that a satisfied employee base has with a satisfied patient base. It is overwhelmingly clear that satisfied employees led to more satisfied patients. With this in mind, hospitals are also beginning to focus on their employee workforce relative to assessment and activities to promote a happier and more employee-oriented workforce.

Third party payers are also an increasing customer base that hospital administrators have begun to recognize as a looming threat specific to the increasing reality of rising concerns over the cost of healthcare. The future role their employees might be given to choose a hospital versus being forced to patronize one hospital adds to the threat. Additionally, hospital administrators are challenged to implement strategies to control costs and lessen their dependence on third party payers making up the financial gap that exists relative to Medicare and Medicaid reimbursement.

While the literature clearly articulates the key customer bases critical to sustaining and growing hospital financial stability, physicians remain the cornerstone to patient volume, which is the foundation to hospital marketplace survival. In this new era where collaboration and cooperation between physicians and hospital administrators is of

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paramount importance to the future of healthcare, alignment between hospitals and physicians is necessary. However, the marked history of the relationship between physicians' and hospital administration creates a difficult set of challenges. The key factors related to physician satisfaction noted in the literature tend to focus on increased collaboration by improving the relationship between physicians' and administrator's by focusing on honest, straightforward communication which leads to building trust.

While the desire to foster a physician/hospital culture based upon trust is easy to say, it is particularly challenging to rekindle physician collaboration in light of the past relations and the rapidly changing healthcare environment relative to reimbursement. The literature provides an abundance of suggestions for administrators to build physician trust and loyalty to their organizations in order to create a physician-responsive culture. Building trust can be facilitated through several key behaviors such as meaningful, frequent physician input, an open deliberate environment with a simple well-articulated vision, shared core values focused on the patient, quality and mutual respect, open book financials, and having a visible senior management.

Unfortunately, as evidenced by the literature, this type of transformation from a culture of distrust to one of trust and collaboration between physicians and administrators is not easy in an uncertain and turbulent healthcare environment and will require a great deal of effort. Additional factors worthy of administrator attention to assist in promoting physician satisfaction are the procurement of medical equipment to provide the most recent technological advancement and action demonstrating the promotion of clinical competency of the nursing staff.

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CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

In this chapter, the research components of the study are presented. The design of the study, sample selection, and participant acquisition are explained. Research questions and hypotheses are included. The survey instrument is described. The processes of data collection and data analysis are also discussed.

Sample

The experimentally accessible population for the study was the population of physicians who had current active hospital staff privileges at one Midwest hospital. The hospital provided an overall list of 532 eligible physicians. The researcher obtained permission to conduct the study from the Midwest hospital (Appendix C). The sample consisted of 104 randomly selected physicians using a random numbers table on the physician medical staff of one Midwest hospital. Institutional review board approval was obtained from the researcher's sponsoring institution (Appendix D). Physicians were not identified by name, but rather, surveys were coded with ID numbers to assure anonymity. All participant names were known only by the company conducting the phone surveys. At no time were these names released to the researcher.

Participants in the survey consisted of 84.6 % males and 15.4 % females. Ages of participants were as follows: under 35 (7.7%), 35-44 (28.8%), 45-54 (45.2%), 55-64 (16.3%), and over 65 (1.9%). Years as a practicing physician were reported as the following: over 20 years (15.4%), 11-20 years (28.8), 5-10 years (26 %), and less than 5

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years (29.8%). Ethnicity was neither measured nor studied. There were two refusals to participate in the survey from the sample, and four calls were abandoned after three failed scheduled appointments. Those refusals and abandoned physicians were randomly replaced with alternative physician participants.

Instrumentation

One of the country's top two research firms specializing in physician satisfaction relative to hospital practice was retained by the hospital to conduct the survey. The research focused on various aspects of physicians' perceptions and attitudes related to satisfaction with hospital administration, the quality of nursing care, and other hospital amenities and services. The research instrument was utilized to determine key drivers of physician satisfaction to assist hospital administrators' in facilitating a key organizational strategic initiative related to being a premier place for physicians to practice medicine. Instrumentation pertained of an 83-question, Likert-scale interview conducted by professionally trained interviewers (see Appendix A). Each item included a single sentence. Throughout the instrument evaluations were measured utilizing a 5-point scale of "excellent," "very good," "good," "fair," and "poor." Several of the questions were open-ended, "Yes/No," or brief narrative responses. The qualitative responses were not considered in this study.

Content Validity

The content validity of the relevant portion of the instrument was established by a panel of five physician experts with general medicine and surgical specialties. The researcher obtained verbal consent from the panel to participate in the content validity study. The five physicians completed the instrument on April 17, 2003. Participants were

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gathered at a hospital conference room free of distractions. The physicians were instructed to rate the importance of each item as it pertained to measuring physician satisfaction. It was reiterated that they were not to respond to the instrument like a participant; rather, they were to respond to each item as it related to the perceived importance of the item relative to physician satisfaction.

Each physician responded to the same instrument utilized in the study with the exception of the item ranking scale and instructions for completion. Analysis was performed only for the four items that were utilized in the study. Since the number of remaining items was large, no analysis was performed relative to these remaining items. Table 2 contains means and other statistics that reflect the content validity of the instrument relative to the four items. The means ranged from 4.20 to 4.60 (4 = important and 5 = very important). The results suggested appropriate content validity of the instrument as it pertained to the four items utilized in the study that pertained to the research questions.

Table 2

Means and Other Statistics Reflecting Content Validity of Instrument Relative to Four Selected Items

Selected Hospital Practice	M	SD
The Medical Center as a place to practice medicine	4.40	0.55
Administration administrators' willingness to encourage physician input and involvement in decision making	4.40	0.55
Nursing staff competency of assessment and monitoring of patient status	4.20	1.30
Availability of medical equipment	4.60	0.55

Note. The scoring scale for the four items was as follows: 1= Not very important item; 2 = Not important item; 3 = Neither important nor unimportant item; 4 = Important item; 5 = Very important item. N = 5.

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Reliability

The test-retest reliability of the relevant portion of the instrument was established through two administrations of the entire instrument to 26 physicians. The 26 physicians had not previously participated in the study and were randomly selected to complete the pretest and posttest instrument. Participants were prescheduled for interview time and the instrument was completed at the time of the scheduled interview. The initial "testing" (pretest) was completed during the month of May 2003, and the second testing (posttest) was repeated 7 days following the participant's initial pretest interview.

Pearson product-moment correlation coefficients (r) were computed and interpreted for each pre-post paired item. The r-values are shown in Table 3. The r-values ranged from .70 (the hospital as a place to practice medicine) to .94. With the exception of the item relative to the hospital as a place to practice medicine, the r-values reflected sufficient test-retest reliability.

Table 3

Pearson Product-Moment Correlation Coefficients Relative to Pre- and Post-testing for Four Selected Instrument Items

Selected Hospital Practice	r
The Medical Center as a place to practice medicine	.70
Administration administrators' willingness to encourage physician input and involvement in decision making	.90
Nursing staff competency of assessment and monitoring of patient status	.86
Availability of medical equipment	.94

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Since concern arose relative to r = .70 and since the writer understood that r values may be spuriously low with homogenous samples, standard deviations were computed for each of the pre- and posttest items. Relative to the four paired pre-posttest items, the standard deviations were lowest for the pre and post scores for the hospital as a place to practice medicine (0.51 for the pre item and 0.50 for the post item). The remaining six standard deviations values ranged from 0.55 to 1.13.

Accordingly, an alternative approach was taken to evaluate the test-retest reliability of the hospital as a place to practice medicine item. Cross tabulations relative to the pre and post scores were made. Twenty-two of the 26 physicians responded at the same point on the measurement scale for each of the pre and posttests (85% agreement). Relative to the four instances of disagreement, the disagreement was by only one scale point. Thus, the test-retest reliability of the instrument utilized relative to the research questions was evaluated and judged to be sufficient.

Study Design

There was no manipulation of conditions, no pretest-posttest format, and no random assignment to groups of participants. A pre-existing instrument was utilized. Content validity and reliability were evaluated. The data for the content validity of the instrument were collected on April 17, 2003. The data relative to the instrument reliability were collected over a 14-day period, in May 2003. Data were provided to the researcher by the research company and analyzed by the researcher. The research protocol was submitted for review to the Illinois State University Institutional Review Board (IRB) for approval. The IRB issued the protocol the number of 2003-0098 and classified the protocol as Exempt from Further Review.

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Data Collection

The interview protocol consisted of an introduction letter from the hospital's CEO and the president of the medical staff mailed to all physicians who were eligible to participate in the survey. Eligibility was determined as any physician currently granted active privileges at the hospital. The letter explained the objectives of the study and encouraged the physician to participate if the firm interviewer contacted him or her. Approximately one week after the letters were mailed, the interviewer called the physician office with the goal of setting up an appointment time for the physician to complete the phone survey. After the initial appointment was established, the interviewer contacted the physician at the scheduled appointment time. If the physician was unable to keep the scheduled interview time, the process of setting up the phone interview started over with the scheduling process. The effort to obtain the interview continued until an interview was completed, the physician related he or she wished not to participate, or after three failed scheduled appointments. If a physician wished not to participate, the disposition of the interview was recorded as a refusal. If the interviewer was unsuccessful after three scheduled attempts, the disposition of the interview was recorded as unable to obtain. All refusals and unable-to-obtain interviews were replaced via a randomly selected replacement participant. Interviews were completed at the convenience of the physician between the weeks of October 16 and November 30, 2001. Ethical issues associated with this research study were minimal. Privacy issues were respected. Physicians were not identified by name, but rather surveys were coded with ID numbers to assure anonymity. The data were obtained by the researcher from the company who performed the telephone survey and analyzed by the researcher.

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Statistical Methodology

The following summarizes the research questions, the corresponding hypothesis, and the statistical methodology utilized.

Research Question 1

> What is the relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?

Hypothesis. There is a relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Statistical methodology. A multiple regression analysis using the "enter" method was performed to determine the relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Research Question 2

> What is the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision-making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining two selected hospital practice variables?

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Hypothesis. There is a relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision-making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining two independent variables.

Statistical methodology. The β values of multiple regression analysis were utilized to determine the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining two selected hospital practice variables.

Research Question 3

> What is the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?

Hypothesis. There is a positive and linear relationship between the physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Statistical methodology. Pearson product-moment correlations were computed to determine the linear relationship between the physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician

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input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Chapter Summary

Chapter Three included information concerning the study design, sample, review of the research questions, hypotheses and statistical methodology, instrument, and data collection. Both the validity and reliability testing of the instrument were found to be sufficient for the purposes of this study.

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CHAPTER IV

ANALYSIS OF DATA

This chapter is organized according to the research questions. For each question, a brief description of the research methodology and results are presented. Throughout the chapter the variable set pertaining to hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care will be hereafter referred to as the set of variables that represent selected hospital practices. The implications of the results for increasing physician satisfaction and further research will be dealt with in Chapter 5.

Research Question 1

Research Question 1 was: "What is the relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?" The statistic that pertained to the relationship between the variable the hospital as a place to practice medicine and a linear combination of the set of variables that represented selected hospital practices was significant, $R^2 = .15$, $F(3, 100) = 5.93$, $p = .00$. Fifteen percent of the variance of the hospital as a place to practice medicine was accounted for by the linear combination of the set of variables that

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represent selected hospital practices. Hypothesis 1, that there is a relationship between the hospital as a place to practice medicine and a linear combination set of variables that represented selected hospital practices, was supported.

When assessing the outcome of combining the three independent variables, only 15% of the variance related to the hospital as a place to practice medicine is explained. Nearly 85% of the variance in the hospital as a place to practice medicine is not explained by the selected set of variables that represented selected hospital practices. Thus, numerous other contributing variables are yet to be identified.

Research Question 2

Research Question 2 was: "What is the relationship between physician satisfaction in terms of a place to practice medicine and each variable that represented selected hospital practices, controlling for the remaining two selected hospital practice variables?"

Table 4 contains the β and other values that pertained to the relationship between the hospital as a place to practice medicine and each variable that represent selected hospital practices controlling for the remaining two variables that represent selected hospital practices. The β values were produced relative to the multiple regression analysis.

The β value for administration's encouragement of physician input and involvement in decision-making was significant and positive, $\beta = .20$, $t(100) = 2.16$, p (two-tailed test) = .03. The β value for the availability of medical equipment to deliver medical care was also significant and positive, $\beta = .29$, $t(100) = 2.89$ p (two-tailed test) = .01. The remaining β value for nursing staff competency of assessment of patient status was nonsignificant, p (two-tailed test) > .05. Hypothesis 2, that there is a relationship between

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physician satisfaction in terms of a place to practice medicine and each of the variables that represent selected hospital practices, controlling for the other two variables that represent selected hospital practices, was largely supported.

Table 4

β and Other Values Pertaining to the Relationship Between the Hospital as a Place to Practice Medicine and Each Variable Representing Selected Hospital Practices

Selected hospital practice	β	t	p
Administrators' willingness to encourage physician input and involvement in decision making	.20	2.16	.03
Nursing staff competency in assessing patient status	.05	.477	.64
Availability of medical equipment to deliver medical care	.29	2.89	.01

Note. df = 100. The p values pertain to two-tailed tests.

A relationship was demonstrated between the hospital as a place to practice medicine and hospital administrators' willingness to encourage physician input and involvement in decision making controlling for the remaining variables representing selected hospital practices, and between the hospital as a place to practice medicine and availability of medical equipment to deliver medical care controlling for the remaining variables representing selected hospital practices. No inference could be made concerning the relationship between hospital as a place to practice medicine and nursing staff competency in assessing patient status controlling for the remaining variables representing selected hospital practices.

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Research Question 3

Research Question 3 was: "What is the linear relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?"

Table 5 contains the r and other values that pertain to the relationship between the hospital as a place to practice medicine and each variable representing selected hospital practices. The r values were significant (one-tailed tests) and positive for administration's encouragement of physician input and involvement in decision-making ($r = .23$, $p = .01$); nursing staff competency relative to assessment and monitoring of patient status ($r = .17$, p (one-tailed tests) = .05 [the actual p value was .047; hence the r value was significant]); and availability of medical equipment to deliver medical care ($r = .33$), p (one-tailed tests) = .00.

Table 5

r and Other Values Pertaining to the Relationship Between the Hospital as a Place to Practice Medicine and Each Variable Representing Selected Hospital Practices

Selected hospital practice	r	p
Administrators' willingness to encourage physician input and involvement in decision making	.23	.01
Nursing staff competency in assessing patient status	.17	.05
Availability of medical equipment to deliver medical care	.33	.00

Note. The p values pertain to one-tailed tests.

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The result that physicians involvement in decision making, nursing staff competency, and the availability of medical equipment all had positive r values is also supported in the literature as elements that contribute to physician satisfaction. However, the finding that all three r values were positive and significant, $p < .05$ (one-tailed tests), and only two corresponding β values were significant suggests one or more specification errors. Most likely these specification errors pertain to collinearity, the degree to which the set of variables that represent selected hospital practices were related to one another. Of the three r values that pertained to the relationships among the set of variables that represent selected hospital practices, the one with the highest magnitude was the r value pertaining to the relationship between nursing staff competency in assessing patient status and the availability of medical equipment to deliver medical care pair, $r = .41$. This highest absolute value was evaluated to be not great enough to cause a serious specification error but enough to be a plausible explanation for the disparity between the degree of statistical significance for the β and r values. Another plausible explanation for the disparity between the degree of statistical significance of the β and r values is that while the linear relationship between nursing staff competency in assessing patient status and the availability of medical equipment to deliver medical care was of high enough absolute magnitude to result in significant r values, the relationship between the hospital as a place to practice medicine and nursing staff competency in assessing patient status controlling for the remaining two variables representing selected hospital practices was not of high enough absolute magnitude to result in a significant β value.

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Statistically Significant Results

The statistically significant results were the following:

1. The R^2 that pertained to the relationship between the hospital as a place to practice medicine and the set of variables that represent selected hospital practices.

2. The positive β value that pertained to the relationship between the hospital as a place to practice medicine and hospital administrators' willingness to encourage physician input and involvement in decision making controlling for nursing staff competency in assessing patient status and availability of medical equipment to deliver medical care.

3. The positive β value that pertained to the relationship between the hospital as a place to practice medicine and availability of medical equipment to deliver medical care controlling for hospital administrators' willingness to encourage physician input involvement in decision making and nursing staff competency in assessing patient status.

4. The positive r values that pertained to the linear relationships between the hospital as a place to practice medicine and each of hospital administrators' willingness to encourage physician input involvement in decision making and nursing staff competency in assessing patient status, and the availability of medical equipment to deliver medical care.

Summary

Chapter IV contains information concerning the statistical methodology utilized for each research question along with the corresponding results for each question. Each research question was stated followed by a summary of results and a statement noting if the hypothesis for the question was supported or not supported. Tables were provided for β and other values pertaining to the relationship between the hospital as a place to

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practice medicine and each of the variables representing selected hospital practices.

Research Question 1 was supported relative to the relationship to the hospital as a place to practice medicine and a linear combination set of variables that represent selected hospital practices. Research Question 2 was largely supported relative to the relationship between physician satisfaction in terms of the hospital as a place to practice medicine and each variable that represented selected hospital practices, controlling for the remaining two selected hospital practice variables. Research Question 3 was supported relative to the linear relationship between physician satisfaction and each of the variables representing selected hospital practices.

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CHAPTER V

OVERVIEW, SUMMARY OF RESULTS, CONCLUSIONS, DISCUSSION AND IMPLICATIONS, AND RECOMMENDATIONS

An overview of the study, a summary of the results, a statement of conclusions, discussion and implications, and recommendations are included in this chapter. The chapter is organized into five sections. In the first section, an overview of the study is provided, which includes the problem statement, purpose of the study, the research questions and hypotheses, background of the study, and a summary of the research processes. The second section provides a summary of the statistically significant results of the study. The third section includes conclusions regarding key drivers of physician's satisfaction based upon the study results. The fourth section focuses on a discussion of the study results and conclusions with implications for hospital administrators, hospital Board of Directors, and physicians. Lastly, the fifth section concludes with recommendations for hospital strategic planning relative to physician satisfaction and research.

Overview of the Study

Statement of the Problem

The problem in this study was a lack of knowledge relative to the key factors that determine physician satisfaction within the hospital in which they practice. The intent was to increase the knowledge base relative to the key drivers of physician satisfaction to assist hospital administrators' in developing key organizational strategic initiatives to enhance physician satisfaction.

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Purpose of the Study

The purpose of this study was to determine the relationship between physician satisfaction in terms of a place to practice medicine and hospital administrators willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Research Questions and Hypotheses

The research questions and hypotheses were as follows:

Research question 1. What is the relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?

Hypothesis. There is a relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

Research question 2. What is the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators', administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining variable sets representing selected

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hospital practices?

Hypothesis. There is a relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care, controlling for the remaining variable sets representing select hospital practices.

Research question 3. What is the relationship between physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care?

Hypothesis. There is a positive and linear relationship between the physician satisfaction in terms of a place to practice medicine and each of hospital administrators' willingness to encourage physician input and involvement in decision making nursing staff competency in assessing patient status and availability of medical equipment to deliver medical care.

Background of the Study

Today's hospital administrators are confronting sobering economic realities from a variety of sources. These include dramatic cost increases and shrinking reimbursement relative to providing healthcare, the expanding need to offer the latest diagnosis and treatment technologies, and pressure from empowered, demanding consumers. Consequently, hospitals have had to evaluate how they have historically managed healthcare operations and are paying more attention to assuring the satisfaction of their key customer bases.

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The literature clearly identifies the following four core customer bases that impact the financial stability of a hospital: patients, employees, third-party payers, and physicians. Each of these constituencies bases play a unique role in the future of healthcare and require hospital administrators to develop and implement strategy to maintain and grow satisfaction in these key customer bases (Atkins, 1996; Blegan, 1993; Burns, 1998; Finch & Linderberry, 1999; Fottler, Ford, & Heaton, 2002; Herzlinger, 2002; Kaldenberg & Regrut, 1999; McNeese-Smith, 1996; Press, 2002; Redmond & Sorrell, 1999; Zemencuk, Hayward, Sharupski, & Katz, 1999).

Despite the important role that patients, employees, and third party payers play in the fiscal survival of hospitals, the key customer focus of hospitals still rests upon their physician base. The literature notes that the majority of healthcare consumers will choose their hospital based upon where their physicians would like them to go even if they have choice (Hirschman, 1970; Healthcare Advisory Board, 2002). Moreover, it is well known that some physicians will use their power and influence when they are dissatisfied with their hospital experiences and shift business to competing hospitals to make a statement of their dissatisfaction (Hirschman, 1970). This type of behavior in which physicians shift patient volume to a competitor can be devastating to a hospital's financial portfolio. Thus, hospital administrators must consider physician satisfaction a critical foci related to their financial survival.

The literature focuses on several key themes relative to physician satisfaction. Three roles emerged in the literature. They include: the desire of physician to be treated as a customer of the hospital; the role of the physician as a provider of healthcare services to patients; and the desire of physicians to be part of hospital decision making (Amrose,

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1977; Stevens, Diederiks & Philipsen, 1992; Okorafor, 1983). As a hospital customer, physicians desire competent and responsive staff and systems, easy access to services, and cutting edge technology (Ambrose, 1977; Scharf & Caley, 1993; Smith, Reid, & Piland, 1999; Weiss, 1983). As providers of the hospital services, physicians desire effortless access for their patients, current medical equipment, modern facilities to provide care to their patients, and competent care provider staff whom they can depend on to relay accurate and timely information about their patients in their absence (Ambrose, 1977; Scharf & Caley, 1993; Smith, Reid, & Piland, 1999). Lastly, physicians desire to be part of organizational decision-making and play a meaningful role in developing hospital strategy (Amrose, 1977; Stevens, Diederiks, & Philipsen, 1992; Okorafor, 1983). The literature highlights physicians' perception that they are not as encouraged or involved as they would like to be regarding organizational decision-making (Ashmos, Duchon, & McDaniel, 2000; Rovinsky, 2002; Smith, Reid, & Piland, 1990).

While all of these factors are important to physicians, their relationship with hospital administration remains a very important component related to their satisfaction as the administrators are responsible for the operations and operational changes made which impact physician practice in the hospital. The relationship between physicians and hospitals provides a historical picture that has dramatically changed over the past two decades. This landscape of change is partially responsible for the strained physician-hospital relationship that is found in many hospitals today. The foundational reason for the change in relationship between hospitals and physicians from a fairly harmonious to a more tenacious and untrusting relationship was health care reform specifically related to reimbursement that occurred in the early 1980s (Burns, Andersen, & Shortell, 1990;

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Smith, Reid, & Piland, 1990). Additional contributors to the deteriorating relationship between hospital administrators and physicians were the unmet desire of physicians to be part of decision-making and a series of failed and mismanaged strategies to control costs which served to further raise contempt between hospital administrators and physicians.

Despite the historical lack of hospital administrators' involvement of physicians in decision-making, a liberal amount of literature exists regarding the need to integrate physicians into hospital organizational decision-making and strategies to facilitate physician/hospital relationships (Ashmos, Duchon, & McDaniel, 2000; Betts, 2002; Brown & Mayer, 1996; Hiltz, Hodges, Klein, Shapiro, Sundelius, & Wendling, 1996; Purtell, 2002; Rice, 2002; Rovinsky, 2002). The benefits of physician participation in hospital decision-making include enhanced overall financial performance, greater success with change adaptation, strategic planning, and mutually established goals setting (Ashmos, Duchon, & McDaniel, 2000). Many hospitals continue to struggle with integration of physicians into decision-making.

While it is clear that hospitals must continue to be attentive to physicians' desires relative to input and involvement in decision-making, medical equipment availability, and competent care provider staff, another disturbing contributor to physician dissatisfaction is emerging in the physician practice environment literature. The literature is beginning to reflect the declining satisfaction of individual physicians with their chosen profession. These phenomena should be a primary concern to hospital administrators, because they have less ability to impact the overall satisfaction with the practice of medicine as a whole. This phenomenon is not totally surprising given the critical change in the health-care landscape over the past two decades that has impacted not only

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hospitals but also physicians. The primary reasons for this drastic change in physician attitudes are economic in nature. Today's physician is experiencing dramatic increases in individual physician malpractice insurance, decreased payment from all payer sources, resulting in the cost to practice medicine increasing faster than physician net income (American Medical Association, 2002; Cochran, Carolina Securities, LLC, 2002; Massachusetts Medical Society, 2002).

Surprisingly, in the face of such an inclement environment with many competing priorities and external pressures, improving physician relations should be rated at the top of hospital administrators' priorities. In a hospital Chief Executive Officer fax study in 2002, hospital executives failed to rank physician-hospital relations in the top 10 of their agendas (Healthcare Advisory Board, 2002). Topics such as staff shortages, patient satisfaction, controlling costs, improving medication safety, improving patient flow through the system, and growth of existing and new revenue streams ranked highest on their list of priorities, while physician satisfaction was not noted as a key focus (Healthcare Advisory Board CEO Fax Poll, 2002). Ironically, the enhancement of physician satisfaction and loyalty along with increased physician cooperation are cardinal to advancing these exact clinical operational and growth goals over the long term.

Research Design and Methodology

Data were collected over a 6-week period. The sample included 104 randomly selected physicians who practice at one Midwestern hospital. Ages of the 104 participants were as follows: under 35 (7.7%), 35-44 (28.8%), 45-54 (45.2%), 55-64 (16.3%), and over 65 (1.9%). Length of time as a practicing physician was reported as the following: over 20 years (15.4%), 11-20 years (28.8), 5-10 years (26 %), and less than 5 years

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(29.8%). There were two refusals to participate in the survey from the sample, and four calls were abandoned after three failed scheduled appointments. Those refusals and abandoned physicians were randomly replaced with alternative physician participants.

The variables were hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care. The dependent variable was the hospital as a place to practice medicine.

One of the country's top two firms specializing in physician satisfaction relative to hospital practice research was retained by the hospital to assist hospital administrators' in facilitating a key organizational strategic initiative related to being a premier place for physicians to practice medicine. Instrumentation involved an 83-question telephone interview conducted by professionally trained interviewers.

Instrument reliability and validity testing were conducted by the researcher. The means relative to content validity ranged from 4.20 to 4.60 (4 = important and 5 = very important). The results suggested appropriate content validity of the instrument as it pertained to the four items utilized in the study. Pearson product-moment correlation coefficients (r) were computed and found to reflect sufficient test-retest reliability relative to instrument reliability. The r-values ranged from .70 (the hospital as a place to practice medicine) to .94.

Data Analysis

Data were analyzed using the Statistical package for Social Sciences. A multiple regression analysis was performed using the method "enter" to address Research Question 1 regarding the relationship between physician satisfaction in terms of a place

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to practice medicine and a linear combination of the set of variables that represented selected hospital practices. The β values obtained in the multiple regression analysis were utilized to address Research Question 2 regarding the relationship between physician satisfaction in terms of a place to practice medicine and each of the set of variables that represented selected hospital practices, controlling for the remaining two variables that represent select hospital practices. Pearson product-moment correlations were computed to address Research Question 3 regarding the linear relationship between physician satisfaction in terms as a place to practice medicine and each of the variables that represent selected hospital selected practices.

Summary of Results

The statistically significant results were the following:

1. The R^2 that pertained to the relationship between the hospital as a place to practice medicine and the set of variables that represent selected hospital practices. The combination of hospital administrators' willingness to encourage physician input and involvement in decision making controlling for nursing staff competency in assessing patient status and availability of medical equipment to deliver medical care explained approximately 15% of the variance in the hospital as a place to practice medicine. Nearly 85% of the variance in the hospital as a place to practice medicine is not explained by the selected set of variables that represent selected hospital practices. Thus, numerous other contributing variables are yet to be identified.

2. The positive β value that pertained to the relationship between the hospital as a place to practice medicine and availability of medical equipment to deliver medical care controlling for hospital administrators' willingness to encourage physician input involve-

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ment in decision making and nursing staff competency in assessing patient status. When the effects of nursing staff competency in assessing patient status and hospital administrators' willingness to encourage physician input and involvement in decision making are controlled, the availability of medical equipment explains more of the variance of the hospital as a place to practice medicine than either nursing staff competency in assessing patient status or hospital administrators' willingness to encourage physician input and involvement in decision making ($\beta = .29$, p. 01).

3. The positive β value that pertained to the relationship between the hospital as a place to practice medicine and hospital administrators' willingness to encourage physician input and involvement in decision making controlling for nursing staff competency in assessing patient status and availability of medical equipment to deliver medical care. When the effects of nursing staff competency in assessing patient status and availability of medical equipment to deliver medical care are controlled, hospitals administrators' willingness to encourage physician input and involvement in decision making assumes a second place relative to the availability of medical equipment in the explanation of the hospital as a place to practice medicine ($\beta = .20$, p. 03) when the contributions of the other variable is controlled. The β value for nursing staff assessment controlling for hospital administrators' willingness to encourage physician input involvement in decision making and the availability of medical equipment to deliver medical care was not significant.

4. The positive r values that pertained to the linear relationships between the hospital as a place to practice medicine and each of hospital administrators' willingness to encourage physician input involvement in decision making and nursing staff competency

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in assessing patient status, hospital administrators' willingness to encourage physician input involvement in decision making, and the availability of medical equipment to deliver medical care were all found to be significant. The hospital as a place to practice medicine was correlated with the availability of medical equipment (r = .33, p. 00); administrators' willingness to encourage physician input and involvement into decision-making (r = .23, p. 01); and nursing staff competency of assessment and monitoring of patient status (r = .17, p. 05). However, although not part of the original research questions, nursing staff competency of assessment and monitoring of patient status and the availability of medical equipment to deliver medical care were correlated (r = .41, p. 00).

Conclusions

In this study, the emphasis was on understanding the key drivers of physician satisfaction relative to the hospital as a place to practice medicine. Based upon the study results the following conclusions are offered:

1. There is a relationship between physician satisfaction in terms of a place to practice medicine and a linear combination of hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical care.

2. There is a positive relationship between the hospital as a place to practice medicine and availability of medical equipment to deliver medical care controlling for hospital administrators' willingness to encourage physician input involvement in decision making and nursing staff competency in assessing patient status. The importance of medical equipment relative to physician satisfaction has been documented, but not to the extent that it would be the variable that explained the most variance. The availability of

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medical equipment to deliver medical care and the hospital as a place to practice medicine are positively related and administrators' willingness to encourage physician input and involvement in decision-making are positively related. Since one key element of providing quality care is the availability of medical equipment to assist in accurate diagnosis and treatment, it can be expected that physicians would identify equipment as a key factor in their satisfaction. The finding that physicians desire involvement and input into decision-making is also expected. However, it is surprising that they would identify availability of equipment to deliver medical care as the most important factor out of the three selected hospital practices examined in the study.

3. There is a positive relationship between the hospital as a place to practice medicine and hospital administrators' willingness to encourage physician input and involvement in decision making controlling for the availability of medical equipment to deliver medical care to encourage physician input involvement in decision making and nursing staff competency in assessing patient status. The finding that physicians desire input and involvement in hospital decision-making is solidly supported in the literature.

4. There is a positive and linear relationship between the hospital as a place to practice medicine and each of hospital administrators' willingness to encourage physician input involvement in decision making and nursing staff competency in assessing patient status, hospital administrators' willingness to encourage physician input involvement in decision making, and the availability of medical equipment to deliver medical care. The results that input and encouragement in decision making, competent nursing staff, and the availability of medical equipment to deliver medical care are all supported in the literature, however, were not noted relative to ranking of importance as this study reflected.

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The literature would note that decision-making is more important than medical equipment, while this study noted medical equipment availability to be more important.

Discussion and Implications

In this section, discussion of results and conclusions are conducted in greater depth as they are supported by the study results and the literature regarding the hospital customer base relative to physicians and their satisfaction within the hospital they practice. Implications of the study results are discussed.

When examining the literature related to healthcare customer satisfaction, an abundance of information exists. In today's turbulent healthcare environment, a satisfied customer base is an essential foundation of any healthcare organizations strategic plan. In times of declining revenues, increased patient choice, and a changing physician practice environment, hospital administrators find themselves challenged to implement a business strategy that strives to maintain the satisfaction of key stakeholders. Hospital administrators have long recognized the power that physicians have related to providing essential patient volume, which ultimately equates to revenue. As hospital administrators focus their efforts related to satisfaction around key customer bases, physicians who practice medicine at their hospitals remain their core customers due to the fact that they determine where the patient receives care the majority of the time.

The literature relative to the hospital customer cohort of physicians is supportive of several key elements that contribute to physician's satisfaction with hospitals. The results of the current study contributed to the supportive body of literature and also possibly identified an emerging trend that was sparsely identified in the current literature concerning the changing physician practice environment that has not been specifically

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discussed relative to the impact on hospitals as it relates to customer satisfaction.

When examining the results, it is understandable that hospital administrators' willingness to encourage physician input and involvement in decision making, nursing staff competency in assessing patient status, and availability of medical equipment to deliver medical all were found to contribute relative to physician satisfaction with the hospital as a place to practice medicine. The literature solidly supported the desire of physicians to have the opportunity to participate in meaningful organizational decision-making as it relates to increasing satisfaction (Ashmos, Duchon, & McDaniel, 2000; Jaklevic, 1996; Mack, 1998; Rovinsky, 2002; Smith, Reid, & Piland, 1999). While less was noted in the literature regarding equipment availability and nursing competency, they both were noted to play a role in physician satisfaction (Bloomfield, 2002; Colie, 1990; Mackesy, 1993; Messinger & Wetter, 2003;Wolosin, 2002).

The finding that physicians desire input and involvement in hospital decision-making is solidly supported in the literature. Several studies note the perception of physicians not being as engaged in decision-making as they would like to be (Ashmos, Duchon, & McDaniel, 2000; Mack, 1998; Rovinsky, 2002; Stevens, Diederiks, & Philipsen, 1992). The literature provides convincing evidence that hospital administrators recognize the desire of physicians to be involved in decision-making as well as the role engagement of physicians plays relative to their overall satisfaction with the hospitals where they practice (Ashmos, Duchon, & McDaniel, 2002; Betts, 2002; Jaklevic, 1996; Mack, 1998; Rice, 2002; Stevens, Diederiks, & Philipsen, 1992). Based upon the ominous historical saga of physician and hospital relationships, it is not surprising that physicians would identify involvement in decision making as a key satisfaction element.

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However, it remains unclear how successful hospitals are at engaging physicians in decision-making.

In addition to the desire of physicians to be part of organization decision-making, another important factor important to physicians is the skill and competency of the nursing staff who care for their patients. This is not surprising considering the small amount of time the physician actually spends at the bedside of the hospitalized patient. The physician usually sees the patient one time a day and relies on the nurse to clinically evaluate their patient status and provide quick intervention when necessary as well as alerting them when patient status changes occur the remaining 24-hour period. The physician depends heavily upon the nurse to function as the eyes and ears for the physician in his or her absence, to note subtle changes in patient condition, and to seek intervention prior to the patient experiencing an adverse outcome related to changes in their health status. The physician also relies on the nurse assessment skills to decrease the likelihood of malpractice claims. Prompt diagnosis and treatment lessens the chance of adverse patient outcome. The level of skill and competency possessed by nursing staff as it relates to physician satisfaction in a variety of care settings is well documented in the literature (Mackesy, 1993; Okorafor, 1983; Wolosin, 2002)

It is surprising, however, that nursing staff competency relative to assessment and monitoring of patient status was not shown to contribute significantly to physician satisfaction with the hospital as a place to practice medicine relative to the β values. Nursing staff competency regarding the assessment of patient status appears to contribute very little to the explanation of variance in physician satisfaction with the hospital as a place to practice medicine. While an abundance of literature exists related to the relationship

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between the physician and nurse, most of the content of that literature focuses on the construct of their interpersonal relationships and the challenges relative to the hierarchical relationship between the two disciplines (Verschuren & Masselink, 1997; Zwarenstein & Reeves, 2002). Less is noted in the literature regarding the degree of importance that physicians place on nursing staff competency specific to assessment and monitoring of patient status; however, the available literature does support the important role and responsibility that nurses shoulder in the absence of the physician and acknowledgement from physicians of the important role the nurse plays in the overall well-being of the hospitalized patient (Okorafor, 1983; Makesy, 1993; Messinger & Wetter, 2003).

Possible explanations for why nursing staff competency related to assessment and monitoring of patient status was not reported as a significant results relative to physician satisfaction with the hospital as a place to practice medicine include possible specification errors related to collinearity, which are known to impact β values. This hypothesis was explained in Chapters 3 and 4 pertaining to the r values.

Not only are decision-making and nursing competency important factors relative to physician satisfaction, the availability of medical equipment is also noted in the literature to be important to physicians. Hospitals are continually challenged to procure the latest technology for physicians to utilize on their patients. Spending in 1998 was greater than one billion dollars relative to healthcare related expenditures with a hefty amount allocated to technology (Friedman, 2000; Sachdeva, 2001). The acquisition of new technology/equipment has posed significant financial challenges for hospitals; however, most hospitals recognize the return on equipment purchase investment relative to increased revenue, decreased malpractice risk and the value as a retention strategy

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relative to keeping physicians satisfied (Colie, 1990)

It is surprising, however, that physician involvement in decision-making contributed less to the explanation of variance in the hospital as a place to practice medicine than the availability of medical equipment based upon what is reported in the literature. While many studies identified the desire for physicians to have greater input and involvement in hospital decision-making, and nursing staff that are competent in assessing and monitoring patient status, and adequate medical equipment available to deliver medical care, little was noted about the importance of medical equipment availability to correspond with this study's results of medical equipment being the most important factor driving physician satisfaction with the hospital as a place to practice medicine.

While the availability of medical equipment to deliver medical care was the key driver of physician satisfaction, it was again unexpected that it contributed more than hospital administrators' encouragement and input of physicians into decision-making to physician satisfaction. This is surprising for two reasons. First, the literature included a plethora of support regarding the key role that engaging physicians in decision-making has on enhancing physician satisfaction (Ashmos, Duchon, & McDaniel, 2002; Betts, 2002; Jaklevic, 1996; Mack, 1998; Rice, 2002; Stevens, Diederiks, & Philipsen, 1992). Secondly, the literature noted that most hospitals will acquire medical equipment to achieve a competitive advantage, to enhance revenue potential, or to respond to a physician request without much prompting or purchase resistance (Bloomfield, 2003; Colie, 1990; Cowan & Berkowitz, 1996; Taylor, 1995; Wagner, 1990). Thus, one would think that physicians would not identify the availability of medical equipment to be higher correlated than their involvement in decision-making.

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Perhaps, the finding that physicians perceive the availability of medical equipment as of greater importance than encouragement and involvement in decision-making could be the changing practice environment of the physician. As physicians' earning power is becoming increasingly dependent upon their increased productivity, they may find it less important to invest valuable time in meetings providing input into decision-making and more time in activities that enhance their revenue, such as seeing more patients or taking advantage of new equipment to perform more testing.

Another possible explanation for the availability of medical equipment being perceived by physicians as more important than encouragement and input into decision-making could be the current malpractice landscape coupled with a substantial number of physicians being owned by healthcare organizations. Physicians may perceive that they do not have much need for autonomy in a practice setting where they are owned and managed by healthcare organizations. In this practice environment, many decisions are largely out of the physician's control.

However, a more interesting explanation relative to the availability of medical equipment is the current malpractice landscape, which has soared out of control forcing significant malpractice insurance premium increases for today's practicing physician. While many factors play a role for the physician with regard to avoiding medical malpractice litigation, the ability to promptly and accurately diagnose and treat are of major importance to physicians. Availability of state-of-the-art medical equipment assists physicians in meeting the standard of care regarding the appropriate diagnosis and treatment of their patients. Therefore, the importance of medical equipment may be related not only to the physicians' perception of the quality of care he or she can provide

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but also to the decreased potential for medical malpractice litigation that medical equipment and sound nursing competency can provide. Finding that physicians' involvement in decision-making was not as significant a factor relative to physician satisfaction with the hospital as a place to practice medicine as the literature would lead one to believe and that the availability of medical equipment was found to be of greater significance for physician satisfaction with the hospital as a place to practice medicine creates a new opportunity of focus for hospital administrators.

The data generated in this study provide evidence that the long-standing desire of physicians to be involved in decision-making continues to be a key element that hospital administrators' must strive to incorporate into their organizational planning and culture to enhance physician satisfaction. Additionally, the literature relative to the emerging changes in individual physician practice environments and the finding of medical equipment availability being more important than decision making to the study participants possibly reinforces the emerging literature relative to physicians' changing practice environment specific to personal income earnings.

As physicians continue to experience reimbursement changes in their practice domain, it is clear that they will be less involved in hospital committees and decision-making and become more concerned with maintaining their personal incomes. Yet, hospitals are faced with the continued challenge to keep physicians satisfied as a key strategy in maintaining patient volume, which equates to financial sustainability for the hospital. Perhaps the biggest concern facing hospital administrators relative to physician satisfaction is an increasingly apparent reality that the practicing physician's environment is changing and hospitals have little control over assisting physicians. There is mounting

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evidence that physicians are becoming increasingly dissatisfied with the practice of medicine in general. This phenomenon is not totally surprising given the critical change in the healthcare practice environment that has impacted not only hospitals but also physicians. The principal drivers of this drastic change are economically related to drastic increases in malpractice insurance, the cost to practice medicine increasing faster than physician net income, and declining payment from all payer sources (American Medical Association, 2002; Cochran, Carolina Securities, LLC, 2002; Massachusetts Medical Society, 2002).

While little has been written regarding the changing physician practice environment and the ramifications relative to hospital operations and physician satisfaction, it should be noted that the already faltering task of improving physician/hospital administrator relationships will be even more difficult. As today's physician is even more pressured to increase productivity in order to maintain or increase their personal income, physicians are and will become more reluctant to invest time in hospital-related development and strategic activities and will choose to spend more time in their private practices or other activities that result in revenue generation. Thus, one would think that as physicians become more frustrated with their personal professional lives, they would become more difficult to satisfy in the hospital setting due to lack of time for involvement in decision- making and less time for assimilating ongoing process changes that routinely occur within hospitals.

Based upon the current physician practice environment changes and the historical lack of progress in effectively engaging physicians in decision making, coupled with the results noted in this study, it seems strategically necessary for hospital administrators' to

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continue to focus on physician engagement at the decision making level. However, it is necessary to maintain and perhaps increase focus on additional activities such as nursing staff competency, and procurement of medical equipment to satisfy their key customer base, the physicians. Additionally, and possibly a more important satisfier not specifically addressed in this study but emerging in the literature findings relative to declining physician revenues points to a new and important strategic focus. Hospital administrators' must now not only focus on involving and engaging physicians in the decision making process, they must focus on initiatives to assist them with their personal practice environments to facilitate enhancement of their personal revenue.

Recommendations for Research and Hospital Administrators and Educators to Enhance Physician Satisfaction

The current study suggests four areas of focus for hospital administrators regarding enhancing the satisfaction of their primary customers, physicians. Key areas of focus should center around efforts to strengthen involvement in decision making, hire and maintain competent caregiver staff, procurement of medical equipment, and efforts to strengthen the physician practice environment in light of emerging trends.

Actions to facilitate physicians' desire for input and encouragement into decision making include providing physicians the opportunity for involvement, keeping physicians informed of decisions in a timely manner, and assuring that administrators are cognizant and mindful of how their decisions affect physicians. While the establishment of trust between physicians and hospital leaders is a continual challenge due to past history, various behaviors and actions that build trust include offering physicians meaningful and early input into decision-making at all levels of the organization as well as complete dis-

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closure of hospital finances can help build trust (Chyna, 2001; Rice, 2002). Mutual goal setting and agreement relating to common visions, values, and strategies focusing on the patients welfare is also a key element noted in the literature (Egger, 2000; O'Conner & Annison, 2002).

Additionally, hospital administrators should strive to hire the highest qualified and competent nursing staff to function in the absence of the physician. Hospital administrators should continue to procure medical equipment to enhance the quality of patient care and publicize those purchases to physicians. Since most hospitals are investing in modern equipment, administrators should make efforts to let physicians know of the substantial investments in medical technology they are making with the goal of improving patient healthcare outcomes. For some physicians, the equipment will become a potential source of increased revenue and another potential diagnostic tool to assist in avoiding a malpractice case.

Most importantly, based upon the results of the study and the emerging trend relative to reimbursement changes and their impact on physicians' personal income potential, hospital administrators should focus on improving various operational efficiencies to enhance physician productivity, which equates to increased personal revenue. An abundance of opportunity both in the hospital and in the physician's office exists relative to creating better systems and processes to create more efficiency, which would equate to increased physician earnings. Thus, a potentially new focus for hospital administrators would be to create better hospital systems and processes which allow the physicians to generate more individual physician revenue by allowing the physician more time to see more patients or performing additional procedures.

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An additional opportunity for hospitals to assist physicians would be to offer assistance with their personal practice operational issues. Many physicians' office operations have opportunity for increased efficiency relative to patient scheduling, billing, and process flow problems. Literature is beginning to emerge relative to the inefficiencies in individual physicians' offices and their impact on physician revenues. Such enhancements include the use of physician assistants, nurse practitioners, various hospital and office setting operational efficiencies such as methods to increase number of patient visits, paperwork shortcuts, and methodologies to increase market share.

Finally, hospitals must be aggressive in their efforts to engender and support tort law reform in light of the malpractice crisis facing today's practicing physician. The literature is robust with signs of mass physician exodus from the profession of medicine primarily related to the high cost of malpractice insurance costs.

Nursing educators must also incorporate study results into various nursing curriculum courses. Nursing plays a foundational role relative to facilitating physician satisfaction. Results of the study should be transferred to nursing education specific to physician desire of involvement in decision making and their desire for competent nursing staff.

In today's intense competitive marketplace, all business must be concerned not only with price, product, and strategic positioning, but also with the people who are crucial to the success of their organization. Assuring customer satisfaction in healthcare requires substantial focus and effort on the part of hospital administration. The key hospital customer, the physician, creates a significant threat and challenge for hospital administrators in today's dynamic healthcare landscape. As the healthcare milieu

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continues to change relative to reimbursement and the practice paradigm of the individual physician changes, hospital administrators will continue to face new challenges not previously experienced. With those challenges will come a new set of priorities and strategies to approach the satisfaction and retention of physicians who practice within their institutions.

Due to the limited scope of this study and the emerging literature regarding changes in the overall practice environment of today's physician specific to salary and satisfaction, it is recommended that further research be conducted to determine the impact of these changes on hospitals.

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REFERENCES

Ambrose, D. M. (1977). Physicians and nurses rank importance of nursing activities. Nursing, 51, 115-118.

American Medical Association. (2001). Medicare physician payment update state-by-state impact. Retrieved from http://www.ama-assn.org/ama/pub/category/693.html

American Medical Association, (2002). Medicare physician payment update state-by-state impact. Retrieved from http://www.ama-assn.org/ama/pub/category/693.html

Ashmos, D. P., Duchon, D., & McDaniel, R. R. (2000). Physicians and decisions: A simple rule for increasing connections in hospitals. Healthcare Management Review, 25(1), 109-115.

Atkins, P. M., Stevenson-Marshall, B. S., & Javalig, R. G. (1996, Winter). Happy employees lead to loyal patients. Journal of Healthcare Marketing, 15-23.

Baker, T. L. & Taylor, S. A. (1997). Patient satisfaction and service quality in the formation of customers' future purchase intentions in competitive healthcare settings. Health Mark Quarterly, 14(1), 1-15.

Becker, C. (2001, November 26). Imaging the future: Independent radiology centers swim circles around hospital in making high-tech options readily available to patients. Modern Healthcare, 38-40.

Beckley, E. (2001, June 1). Next step: Doctor-owned surgery centers evolve into speciality hospitals. Modern Physician, 3-4.

Betts, P. J. (2002, March/April). Winning over the medical staff. Health Forum Journal, 28-30.

Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. Journal of Marketing, 54, 69-82.

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Blegan, M.A. (1993). Nurses' job satisfaction: A meta-analysis of related variables. Nursing Research, 42(1), 36-41.

Bloomfield, E. (2003). The impact of economics on changing medical technologies. Anesthesia and Analgesia, 96(2), 418-425.

Brown, H.P., & Mayer, T. (1996). Physicians and hospitals: new partnerships. Health Systems Review, 29(3), 35-37.

Bureau of Labor Statistics (2002). Wages by occupation. Retrieved from http://stats.bls.gov

Burns, J. P. (1998). Performance improvement with patient service partners. Journal of Nursing Administration, 28(1), 31-37.

Burns, L. R., Andersen, R. M., & Shortell, S. M. (1990). The effect of hospital control strategies on physician satisfaction and physician-hospital conflict. Health Services Research, 25(3), 527-560.

Clinical Advisory Board (2002). Recovering physician loyalty: Lessons on crafting a true hospital-physician partnership. Washington, DC: The Advisory Board Company.

Chang, K. (1997). Dimensions and indicators of patients' perceived nursing care quality in hospital setting. Journal of Nursing Care Quality, 11(6), 26-38.

Chyna, J. (2001). Reengineering your medical staff organization: Care, efficiency, and relationships. Healthcare Executive, 16(4), 20-25.

Cochran, Caronia Securities LLC, (2002, March 28) Medical malpractice—Now curable? Retrieved from www.cochran-caronia.com/resesarch/reports.html.

Coddington, D. C., & White, S. S. (1986, July). What physicians expect from their hospitals. Trustee, 11-13.

Colie, R. C. (2002, April). World-class service: Patient satisfaction in a customer-driven market. Russ Coile's Health Trends, 14, 63-6.

Colie, R.C. (1990, January). The racer's edge in hospital competition: Strategic technology plan. Health Care Executive, 21-24.

Cowan, J., & Berkowitz, D. (1996). Technology assessment at work: Principles and a case study. Physician Executive, 22(4), 8-9.

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Curtis, R. S. (2001). Successful collaboration between hospital and physicians. Hospital topics: Research and Perspectives on Healthcare, 79(2), 7-13.

Curtis, R. S., & Morrison, M. C. (1996). Integrating the physician into the organizational decision making process. Best Practice and Benchmarking in Healthcare, 1(1), 10-15.

Davis A .R., & Ware J. E., (1988, Spring). Involving consumers in quality of care assessment. Health Affairs, 33-48.

Dingman, S. K., Williams, M., Fosbinder, D., & Warnick, M. (1999). Implementing a caring model to improve patient satisfaction. Journal of Nursing Administration, 29(12), 30-37.

Duff, S. (2002, April). Not a team player: Maine cardiac center wants to limit docs to performing surgeries only at its facility. Modern Healthcare, 20-21.

Egger, E. (2000). Like herding cats, herd physicians by making them want to come. Healthcare Strategic Management, 18(7), 18-19.

Fottler, M. D., Ford, R. C., & Heaton, C. P. (2002). Achieving service excellence: Strategies for healthcare. Chicago, IL: Health Administration Press.

Friedman, L. H. (2000). The timing of medical equipment technology acquisition: Strategic decision making in turbulent environments. Journal of Healthcare Management, 45(2), 317-331.

Ganey, R., & Drain, M. (1998, November/December). Patient satisfaction: What you see is what you get. Trustee, 6-10.

Gitomer, D. (1997). Your customer's happiness requires partnering approach. Business First, 8, 15.

Gotlieb, J. B. (2000). Understanding the effects of nurses, patients,' hospital rooms, patients' perception of control on the perceived quality of a hospital. Health Mark Quarterly, 18(1-2), 1-14.

Herzlinger, R. (2002). Let's put consumers in charge of health care. New York: Jossey Bass.

Herzlinger, R. (1997). Market driven healthcare; Who wins, who loses in the transformation on America's largest service industry. Cambridge, MA: Perseus Books.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Heyer, J., & Hite, R. (1996). Work redesign: Using complaints to analyze and address customer needs. Strategic Healthcare Excellence, 9(8), 9-11.

Hibbard, J., & J. Jewitt. (1997). Will quality report cards help consumers? Health Affairs, 16(3), 218-28.

Hickson, G., Clayton, E. W., Entman, W., Miller, C., Githens, P. B., Whetten-Goldstein, K., & Sloan, F. (1994). Obstetricians' prior malpractice experience and patients' satisfaction with care. Journal of American Medical Association, 272(20), 1583-1587.

Hiltz, R., Hodges, E., Klein, M., Shapiro, S., Sundelius, R., & Wendling, K. (1996). Physician/hospital relationships. Michigan Health and Hospitals, 32(5), 24-25.

Hirschman, A. O. (1970). Exit, voice, and loyalty: Responses to decline in firms, organizations, and states. Cambridge, MA: Harvard University Press.

Holm, C. E., & Brogadir, S. P. (2000). Laying the foundation for successful physician healing. Journal of Healthcare Management, 45(1), 8-11.

Jaklevic, M. (1996, October 21). Docs are from Mars, hospital execs Venus. Modern Healthcare, p. 74.

Jones, C. (1990). Staff nurse turnover costs: Part II, measurements and results. Journal of Nursing Administration, 20(5), 27-32.

Jones, T. O., & Sasser, W. E. (1995). Why satisfied customers defect. Harvard Business Review, 73(6), 88-99.

Kaldenberg, D. O. & Regrut, B. A. (1999). Do satisfied patients depend on satisfied employees or do satisfied employees depend on satisfied patients? Quarterly Research Advisor, 15(7), 9-12.

Kenagy, J. W., Berwick, D. M., & Shore, M. F. (1999). Service quality in healthcare. Journal of American Medical Association, 281(7), 661-665.

Levinson , W., Roter, J., Mullooly, J., Dull, V., & Frankel, R. (1997). Physician patient communication: The relationship with malpractice claims among primary care physicians and surgeons. Journal of American Medical Association, 277(7), 553-559.

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Mack, K. E. (1998, Jan/Feb). Attracting and retaining the best physicians: Satisfied physicians are worth more than the cost of your recruitment efforts. Healthcare Executive, 50-51.

Macksey, R. (1993). Physician satisfaction with rural hospitals. Hospital and Health Service Administration, 38(3), 375-386.

Massachusetts Medical Society (2002, March). The MMS Physician Practice Environment Index Report. Retrieved from http://www.mms.org

Massachusetts Medical Society (2001, March). Physician satisfaction survey. Retrieved from http://www.mms.org

McNeese-Smith, D. (1996, Summer). Increasing employee productivity job satisfaction, and organizational commitment. Hospital and Health Service Administration, 41(2). 160-175.

Messinger, S. F. & Welter, T. L. (2003). Today's key drivers of physician satisfaction. Healthcare Financial Management. 78-92.

Mintzberg, H. (1997). Toward healthier hospitals. Healthcare Management Review, 22 (4), 9-18.

Mycek, S. (2001, July/August). Good Fortune: Griffin hospital gets outstanding grades in both employee and patient satisfaction. Trustee, 20-24.

Nelson, E. C., Rust, R. T., Zahorik, A., Rose, R. L., Bataldren, P., & Siemansk B. A. (1992). Do patient perceptions of quality related to hospital financial performance? Journal of Healthcare Marketing. 12(4), 6-13.

Novartis. (1997). A-z managed care terms [Brochure]. Broxville, NY: Medicom.

O'Connor, E., & Annison, M. (2002, March/April). Building trust and collaboration between physicians. The Physician Executive, 48-52.

Okorafor, H. (1983, March/April). Hospital characteristics attractive to physicians and the consumers: implications for public general hospitals. Hospital & Health Service Administration, 50-65.

Oswald, S. L., Turner, D. E., Snipes, R. L. & Butler, D. (1998). Quality determinants and hospital satisfaction: Perceptions of the facility and staff might be key influencing factors. Marketing Health Services, 18(1), 18-22.

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Press, I. (1986). The predisposition to file claims: The patient's perspective. Handbook of Healthcare Risk Management. Rockville, MD: Aspen.

Press, I. (2002). Patient satisfaction: Defining, measuring, and improving the experience of care. Chicago, IL: Health Administration Press.

Press, I., & Pollack, E. L. (1996). Patient satisfaction surveys can improve your bottom line. *QRC Advisor, 12*(5), 5-8.

Proehl, J. A. (2002). Assessing emergency nursing competency. Nursing Clinics of North America, 37(1), 97-109.

Purtell, D. (2002). Medical staff in need of change. The Physician Executive, 28(1), 64-67.

Redmond, G. M., & Sorrell, J. M. (1999). Studying patient satisfaction: patient voices of quality. Outcomes Management Nursing Practice, 3(2), 67-72.

Rice, J. A. (2002, May/June). Developing a partnering culture: The role of board and management in improving medical staff relations. Healthcare Executive, 7-10.

Rosselli, V. R., Moss, J. M., & Luecke, R. W. (1989, December). Improved customer service boosts bottom line. Healthcare Financial Management, 21-28.

Rovinsky, M. (2002). Physician input: a critical strategic-planning tool. Healthcare Financial Management, 56(1), 36-38.

Sachdeva, R. C. (2001). Measuring the impact of new technology: an outcome-based approach. Critical Care Medicine, 29(8), 190-195.

Scardina, S. A. (1994). SERVQUAL: A tool for evaluating patient satisfaction with nursing care. Journal of Nursing Quality, 8(2), 38-46.

Scharf, L., & Caley, L. (1993). Patients', nurses', and physicians' perceptions of nurses' caring behaviors. Nursing Connections, 6(1), 3-12.

Schultz, R. & Schultz, C. (1988). Management practices, physician autonomy, and satisfaction. Medical Care, 26(8), 750-63.

Smith, H. L., Reid, R. A., & Piland, N. F. (1990). Managing hospital-physician relations: A strategy scorecard. Healthcare Management Review, 15(4), 23-33.

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Stevens, F., Diederiks, J., & Philipsen, H. (1992). Physician satisfaction, professional characteristics and behavior formalization in hospitals. Social Science and Medicine, 35(3), 295-303.

Stout, H. J. (2001). Providence finding out if customers are served. Portland Business Journal, 7

Strasser, S., & Davis, R. M. (1991). Measuring patient satisfaction for improved patient services. Ann Arbor, MI: Health Administration Press.

Surveytools. (2002). *What is satisfaction?* Retrieved January 10, 2003, from http://www.surveytools.com/key.htm

Taylor, C. (1999). Tapping Disney inspiration: Transforming healthcare. Hospital Quarterly, 3(2), 25-27.

Taylor, K. S. (1995). What price progress: Technology assessment teams. Health Facilities Management, 8(2), 22-24.

Troyer, G. T., & Salman, S. L. (1986). Handbook of healthcare risk management. Rockville, MD: Aspen Publication.

Verschuren, P. J., & Masselink, H. (1997). Role concepts and expectations of physicians and nurses. Social Science Medicine, 45(7), 1135-38.

Wagner, M. (1990, August 6). The many reasons why hospitals buy technology. Modern Healthcare, 20-26.

Weiss, S. J. (1983). Role differentiation between nurse and physician: Implications for nursing. Nursing Research, 32(3), 133-139.

Wolfe, S. (1999). Quality vs. cost. RN, 62(1), 28-33.

Wolosin, R. J. (2002). Survey: Nurses key to improving satisfaction with surgical department. *Patient Care Management*, 18(3), 10-12.

Yavas, U., & Shemwell, D. (2001). Modified importance performance analysis: An application to hospitals. International Journal of Healthcare Quality Assurance, 14(3), 104-110.

Zwarenstein, M., & Reeves, S. (2002). Working together but apart; barriers and routes to nurse-physician collaboration. Joint Commission Journal of Quality Improvement, 28(5), 242-246.

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Zemencuk, J. K., Hayward, R. A., Skarpuski, K. A., Katz, S. J. (1999). Patients' desires and expectations for medical care; a challenge to improving patient satisfaction. American Journal Medical Quality, 14(1), 21-27.

Zifko-Baliga, G. M., & Krampf, R. F. (1997, Spring). Managing perceptions of hospital quality: Managing negative emotional evaluations can undermine even the best clinical quality. Marketing Health Services, 17(1), 28-35.

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APPENDIX A

INSTRUMENT

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[redacted]

Date _____

Interviewed by _____ ID# _ _ _ _ 0000

Validated by _____

© 08/01/01 HB
2001-0503-08

[redacted]

2001 Medical Staff Satisfaction Study

[redacted]

This is _____ with ----We are asking physicians on the medical staff at [redacted] for their opinions on health care issues. We would like Dr._____'s opinions.

Dr. _____ should have received a letter from [redacted], stating the objectives of this study.

It takes 10 to 12 minutes. Is this a convenient time to speak to Dr. _____ or could I have a call back time at his/her convenience?

If *Not* Available - Make An Appointment

84. Interviewing Period.

1999 000
2000
2001

1. Is this doctor:

merged 000

This is _____ with ---- We are asking physicians on the medical staff of [redacted] for their opinions on health care issues and would like to have your opinion. You should have received a letter from W.

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2. First I would like to know, what do you consider [redacted] major *strength* to be?

[Don't Know/Not Sure] 000
[Refused]
[Nothing]

Other (Specify)

3. And what do you consider [redacted] major *weakness* to be?

[Don't Know/Not Sure] 000
[Refused]
[Nothing]

Other (Specify)

4. Overall, how would you rate [redacted] as a place to practice medicine? Would you say:

(SKIP to READ BOX before 6) Excellent 000
(SKIP to READ BOX before 6) Very Good
(SKIP to READ BOX before 6) Good
Fair
or Poor
(SKIP to READ BOX before 6) [Don't Know/Not Sure]
(SKIP to READ BOX before 6) [Refused]

5. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure] 000
[Refused]

Other (Specify)

Overall, how would you rate the [redacted] administration on the following areas: (Insert Qs 6-11)? Would you say:

(*ROTATE*: Qs 6-11)

6. The timeliness of communication with physicians

Excellent 000
Very Good

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7. Their willingness to involve physicians in strategic decisions

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

8. Their willingness to involve physicians in marketing efforts

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

9. Their responsiveness to concerns and complaints of physicians

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

10. Their encouragement of physician input and involvement in decision-making

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

11. The timeliness of information to physicians regarding [redacted] managed care initiatives

Excellent	000
Very Good	

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12. Now I would like to know, how would you rate the strategic direction in which [redacted] is moving at this time? Would you say:

(SKIP to 14)	Excellent	000
(SKIP to 14)	Very Good	
(SKIP to 14)	Good	
	Fair	
	or Poor	
(SKIP to 14)	[Don't Know/Not Sure]	
(SKIP to 14)	[Refused]	

13. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

14. Overall, how would you rate the quality of care at [redacted] now? Would you say:

(SKIP to 16)	Excellent	000
(SKIP to 16)	Very Good	
(SKIP to 16)	Good	
	Fair	
	or Poor	
(SKIP to 16)	[Don't Know/Not Sure]	
(SKIP to 16)	[Refused]	

15. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

16. Overall, how would you rate communication between referring physicians and specialists at [redacted]? Would you say:

(SKIP to READ BOX before 18)	Excellent	000
(SKIP to READ BOX before 18)	Very Good	
(SKIP to READ BOX before 18)	Good	
	Fair	
	or Poor	

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17. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure] 000
[Refused]

Other (Specify)

Now I would like to ask you a few questions about *outpatient testing*. How would you rate: (Insert Qs 18 and 19)? Would you say:

(*ROTATE*: Qs 18 and 19)

18. The ease of scheduling outpatient tests

Excellent 000
Very Good
Good
Fair
or Poor
[Not Applicable]
[Don't Know/Not Sure]
[Refused]

19. The timeliness of receiving outpatient test results

Excellent 000
Very Good
Good
Fair
or Poor
[Not Applicable]
[Don't Know/Not Sure]
[Refused]

(End of Rotation)

Now I would like to ask you a few questions about *Admitting and Registration*. How would you rate: (Insert Qs 20 and 21)? Would you say:

(*ROTATE*: Qs 20 and 21)

20. The ease of admitting a patient from the emergency room to the hospital

Excellent 000

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21. The ease of admitting a patient directly to the hospital

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Admit]	
[Don't Know/Not Sure]	
[Refused]	

(End of Rotation)

22. The next few questions deal with the *nursing care*.

Overall, would you rate the quality of nursing care as:

(SKIP to READ BOX before 24)	Excellent	000
(SKIP to READ BOX before 24)	Very Good	
(SKIP to READ BOX before 24)	Good	
	Fair	
	or Poor	
(SKIP to READ BOX before 24)	[Don't Know/Not Sure]	
(SKIP to READ BOX before 24)	[Refused]	

23. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

In addition, how would you rate the nursing staff on the following factors: (Insert Qs 24-30)? Would you say:

(*ROTATE*: Qs 24-30)

24. The care and treatment of patients

Excellent	000
Very Good	
Good	
Fair	
or Poor	

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25. Assessment and monitoring of patient status

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

26. Responsiveness to physician needs

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

27. Appropriateness and timeliness of communication with physicians

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

28. Responsiveness to patient/family needs

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

29. The instructions given to patients about care after discharge

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30. The nursing staff levels

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

(End of Rotation)

Now I would like to ask you a few questions about the flow of *inpatient* medical information. How would you rate: (Insert Qs 31-33)? Would you say:

(*ROTATE*: Qs 31-33)

31. The availability of medical records/information

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

32. The accessibility of current test results

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Not Applicable]	
[Don't Know/Not Sure]	
[Refused]	

33. The speed and accuracy of transcription service

Excellent	000
Very Good	

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34. Now I would like to ask you a few questions about *surgery*.

Do you perform surgery at [redacted]?

	Yes	000
(SKIP to READ BOX before *44*)	No	
(SKIP to READ BOX before *44*)	[Refused]	

35. Overall, how would you rate the surgical services at [redacted]?
Would you say:

(SKIP to READ BOX before 37)	Excellent	000
(SKIP to READ BOX before 37)	Very Good	
(SKIP to READ BOX before 37)	Good	
	Fair	
	or Poor	
(SKIP to READ BOX before 37)	[Don't Know/Not Sure]	
(SKIP to READ BOX before 37)	[Refused]	

36. Would you please tell me why you rated it "Fair"/"Poor"?

	[Don't Know/Not Sure]	000
	[Refused]	

Other (Specify)

In addition, would you rate [redacted] on: (Insert Qs 37-43) as:

(*ROTATE*: Qs 37-43)

37. The ease of scheduling *outpatient* surgery

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

38. The ease of scheduling *inpatient* surgery

Excellent	000
Very Good	

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39. The turnover time between surgical cases

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

40. Anesthesia

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

41. The competency of the surgical staff

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

42. The operating rooms

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

43. The surgical equipment

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	

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Now I would like to ask you a few questions about *ancillary services and other areas* at [redacted]. In general, how would you rate: (Insert Qs 44-54, Even)? Would you say:

(*ROTATE*: Qs 44-54, Even)

44. Laboratory Services

(SKIP to 46)	Excellent	000
(SKIP to 46)	Very Good	
(SKIP to 46)	Good	
	Fair	
	or Poor	
(SKIP to 46)	[Not Applicable]	
(SKIP to 46)	[Don't Know/Not Sure]	
(SKIP to 46)	[Refused]	

45. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

46. Radiology Department

(SKIP to 48)	Excellent	000
(SKIP to 48)	Very Good	
(SKIP to 48)	Good	
	Fair	
	or Poor	
(SKIP to 48)	[Not Applicable]	
(SKIP to 48)	[Don't Know/Not Sure]	
(SKIP to 48)	[Refused]	

47. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

48. Emergency Center

(SKIP to 50)	Excellent	000
(SKIP to 50)	Very Good	

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49. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure] 000
[Refused]

Other (Specify)

50. Rehabilitation Services

(SKIP to 52)	Excellent	000
(SKIP to 52)	Very Good	
(SKIP to 52)	Good	
	Fair	
	or Poor	
(SKIP to 52)	[Not Applicable]	
(SKIP to 52)	[Don't Know/Not Sure]	
(SKIP to 52)	[Refused]	

51. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure] 000
[Refused]

Other (Specify)

52. The Pharmacy

(SKIP to 54)	Excellent	000
(SKIP to 54)	Very Good	
(SKIP to 54)	Good	
	Fair	
	or Poor	
(SKIP to 54)	[Not Applicable]	
(SKIP to 54)	[Don't Know/Not Sure]	
(SKIP to 54)	[Refused]	

53. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure] 000
[Refused]

Other (Specify)

54. Critical Care Units

(SKIP to READ BOX before 56)	Excellent	000

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55. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure] 000
[Refused]

Other (Specify)

(End of Rotation)

Now I would like to ask you a few questions about the *discharge process*. How would you rate: (Insert Qs 56 and 57)? Would you say:

(*ROTATE*: Qs 56 and 57)

56. The instructions given to patients about care after discharge

Excellent 000
Very Good
Good
Fair
or Poor
[Not Applicable]
[Don't Know/Not Sure]
[Refused]

57. The efficiency of the discharge process

Excellent 000
Very Good
Good
Fair
or Poor
[Not Applicable]
[Don't Know/Not Sure]
[Refused]

(End of Rotation)

Now I would like to ask you a few questions about other aspects of [redacted]. In general, how would you rate: (Insert Qs 58-61)? Would you say:

(*ROTATE*: Qs 58-61)

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59. The maintenance of the medical equipment

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

60. The physical condition of the hospital plant

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

61. The amenities offered to physicians, such as parking, doctor's lounge, etc.

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

(End of Rotation)

85. How would you rate the number of safety measures in place for the patients at [redacted]? Would you say:

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

86. How would you rate the environment for staff to report medical errors and concerns? Would you say:

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62. Is there anything with respect to managed care or management of your practice that you would like [redacted] to help you with?

	Yes	000
(SKIP to 64)	No	
(SKIP to 64)	[Don't Know/Not Sure]	
(SKIP to 64)	[Refused]	

63. Would you please tell me what that is?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

64. Overall, how would you rate the present relationship between [redacted] *hospital* management and the medical staff? Would you say:

(SKIP to 66)	Excellent	000
(SKIP to 66)	Very Good	
(SKIP to 66)	Good	
	Fair	
	or Poor	
(SKIP to 66)	[Don't Know/Not Sure]	
(SKIP to 66)	[Refused]	

65. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

66. Overall, how would you rate the present relationship between [redacted] *medical* management and the medical staff? Would you say:

(SKIP to 68)	Excellent	000
(SKIP to 68)	Very Good	
(SKIP to 68)	Good	
	Fair	
	or Poor	
(SKIP to 68)	[Don't Know/Not Sure]	
(SKIP to 68)	[Refused]	

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68. Overall, how would you rate the present elected medical staff leadership adequately representing the views and needs of medical staff members such as yourself? Would you say:

(SKIP to 70)	Excellent	000
(SKIP to 70)	Very Good	
(SKIP to 70)	Good	
	Fair	
	or Poor	
(SKIP to 70)	[Don't Know/Not Sure]	
(SKIP to 70)	[Refused]	

69. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

70. In general, would you say that your understanding of the impact of Medicare reimbursement on [redacted] finances is:

(SKIP to 72)	Excellent	000
(SKIP to 72)	Very Good	
(SKIP to 72)	Good	
	Fair	
	or Poor	
(SKIP to 72)	[Don't Know/Not Sure]	
(SKIP to 72)	[Refused]	

71. Would you please tell me why you rated it "Fair"/"Poor"?

[Don't Know/Not Sure]	000
[Refused]	

Other (Specify)

72. How would you rate the present financial strength of [redacted]? Would you say:

Excellent	000
Very Good	
Good	
Fair	

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73. In your opinion, would *your patients* rate their overall satisfaction with [redacted] as:

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

74. If needed, what is the likelihood that you would use or recommend [redacted] to friends and relatives? Would you say:

Excellent	000
Very Good	
Good	
Fair	
or Poor	
[Don't Know/Not Sure]	
[Refused]	

The last few questions are needed for classifying responses.

75. Gender. (Do *Not* Ask - Just Record)

Male	000
Female	

76. What is your age?

Under 35	000
35 to 44	
45 to 54	
55 to 64	
65/Over	
[Refused]	

SCRIPTING NOTE: Recode "0" to "99" in the VAR variable. Add 99 [Less Than One Year] to the coding table.

77. How long have you been on the medical staff of [redacted]?
@@(Code "Less Than One Year" as 0.)

0 to 80	000

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78. Overall, which [redacted] hospital do you consider to be your primary hospital? Would you say:

[redacted] 000

[redacted]

[redacted]

[None]

[Don't Know/Not Sure]

[Refused]

79. Finally, if you could make one change for improvement at [redacted], what would that be?

[Don't Know/Not Sure] 000

[Refused]

[Nothing]

Other (Specify)

80. Now I would like to thank you for completing the survey. The opinions of physicians in this survey will be valuable to [redacted] in two ways.

First, is the overall perspective provided by the participating physicians about the issues covered. *Second*, is the perspective provided by individual physicians about those issues. We will be grouping opinions and information provided by all physicians. Would you be willing to have your individual opinions shared with [redacted]?

Okay to Share 000

Do *Not* Share

(If Response is No, READ:) Your opinions will remain strictly confidential and will be reported only in total along with the opinions of other physicians.

(READ to All:) That is all of my questions. I enjoyed talking to you. You have been very helpful. [redacted] appreciate your taking time to share your opinions.

THANK YOU for your time. GOOD BYE!

SCRIPTING NOTE: Qs 81-83 to be set in script. Q82 was only used for the 1999 study.

81. Date Completed.

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83. Specialty.

Allergy	000
Anesthesiology	
Cardiology	
Cardiovascular Surgery	
Dermatology	
Emergency Medicine	
Endocrinology	
Family Practice	
Fertility/Reproduction	
Gastroenterology	
General Surgery	
General/Oncology	
Internal Medicine	
Medical Oncology	
Neonatology	
Nephrology	
Neurology	
Neurosurgery	
Obstetrics/Gynecology	
Occupational Medicine	
Ophthalmology	
Oral Surgery	
Orthopedic Surgery	
Otolaryngology	
Pain Management	
Pathology	
Pediatric Oncology	
Pediatric Pulmonology	
Pediatrics	
Perinatology	
Phys Med/Rehab	
Plastic Surgery	
Podiatry	
Psychiatry	
Pulmonary Medicine	
Radiation Oncology	
Radiology	
Rheumatology	
Urology	
Pediatric Cardiology	

Q84 added at beginning of survey starting with 2000 interviews.
Q85 and Q86 between Q61 and Q62 starting with 2001 interviews.

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Date

Name
Address
City, State Zip

Dear Dr. (Last Name):

The Medical Staff interviews are nearing a close. The response, thus far, has been phenomenally successful with over 90 percent of the selected Medical Staff members completing the telephone interviews.

This is a very important study, and the results will be integrated into the existing and future strategic planning of [redacted]. The input of the Medical Staff is essential to the quality of the study's results and the future directions of the hospital.

The research firm has advised us that you have not yet provided them with your valuable input. We do not want to close the interviewing phase of the study without ensuring that you have had every opportunity to participate. A researcher from [redacted] will be telephoning your office to provide you with that opportunity or you may opt to call 1-800-XXX-XXXX to convey your input.

The interviews have been extended until (Date), after which we will have to close this phase of the study.

Thank you for your continued cooperation.

Respectfully yours,

[redacted]
President and CEO

[redacted]
President, Medical Staff

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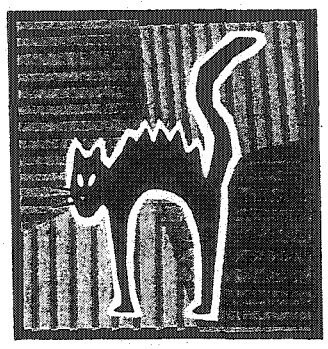
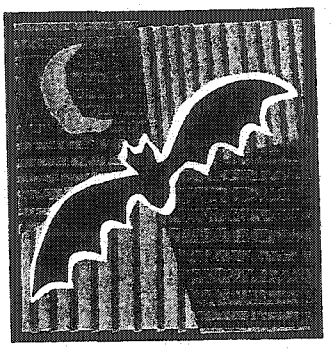


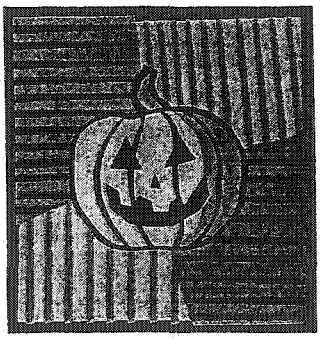


LEADERSHIP TEAM

AGENDA

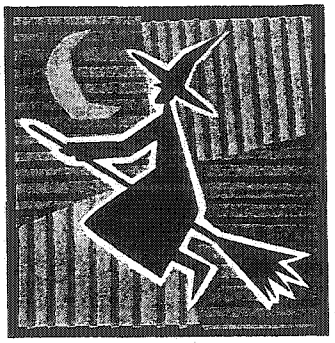
Tuesday, October 28, 2003
Atrium A, B, C
2:00 PM

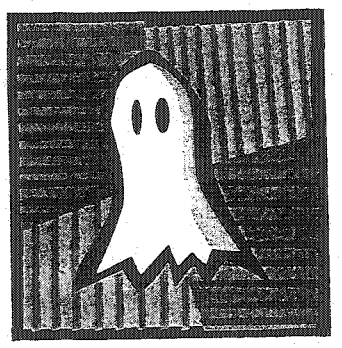
1. Call to Order ..... 2:00 .....
2. Patient Satisfaction..... 2:00 – 2:05.....
3. Role of Safety Resource Person... 2:05 – 2:10.....
4. PR Star Award..... 2:10 – 2:15.....
5. I/T Update ..... 2:15 – 2:35.....
6. Financial Plan..... 2:35 – 2:50.....
7. Methodist Health Plan..... 2:50 – 3:55.....
8. President's Report..... 3:55 – 4:00.....
9. Adjournment



NEXT SCHEDULED MEETING IS:

Tuesday, Nov. 25th
Morron Room





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APPENDIX B

PERMISSION LETTER TO USE SURVEY INSTRUMENT

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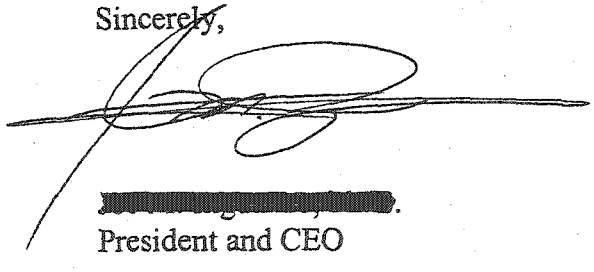
November 25, 2002

To whom it may concern,

This letter serves to indicate that Tammy Woods-Duvendack has permission from [redacted] to use our survey tool regarding physician satisfaction for purposes of dissertation research. [redacted] gives permission for survey tool and supporting materials to appear in the appendix of the dissertation and for use by Institutional Review Boards as necessary. The instrument may not be copied or used for any other purposes outside the scope of this dissertation.

Sincerely,



[redacted].
President and CEO

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APPENDIX C

PERMISSION LETTER AUTHORIZING SURVEY TO BE CONDUCTED

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November 11, 2002

To whom it may concern,

This letter serves to indicate that Tammy Woods-Duvendack has permission from [redacted] to use data obtained from [redacted] regarding physician satisfaction for purposes of dissertation research.

Sincerely,

[redacted]
Senior Vice President of Medical Affairs
Corporate Compliance Officer
Chief Medical Officer

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APPENDIX D

INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

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----- Original Message -----
From: Suette Overholt
To: rsch50@juno.com
Sent: Wednesday, October 29, 2003 4:13 PM
Subject: Fwd: IRB approval letter

March 28, 2003

Ed Hines
EAF 5900

Thank you for submitting the research protocol titled, **Physicians Satisfaction: An Integral Component of Hospital Strategy**, for review by the Illinois State University Institutional Review Board (IRB). The IRB has reviewed this research protocol and effective **3/26/2003**, has classified this protocol as **Exempt from Further Review**.

- Please add IRB contact information to informed consent script or letter.

- Also, please use current IRB form in future protocols.

This protocol has been given the IRB number **2003-0098**. This number should be used in all correspondence with the IRB.

This classification of this protocol as **Exempt from Further Review** is valid only for the research activities, timeline, and subjects described in the above named protocol. IRB policy requires that any changes to this protocol be reported to, and approved by, the IRB before being implemented. You are also required to inform the IRB immediately of any problems encountered that could adversely affect the health or welfare of the subjects in this study. Please contact Nancy Latham, Assistant Director of Research, at 438-8451 or myself in the event of an emergency. All correspondence should be sent to:

Institutional Review Board
Campus Box 3330
Professional Development Building
Telephone: 438-8451

It is your responsibility to notify all co-investigators (**Tammy Woods-Duvendack**), including students, of the classification of this protocol as soon as possible.

Thank you for your assistance, and the best of success with your research.

William Vogler, Chairperson
Institutional Review Board
Telephone: 438-8451

cc: Darryl Pifer, Department Rep, 5900

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