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Factors Associated with Emergency Room Choice Among Medicare Patients

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ABSTRACT. Changing macroenvironmental factors have caused hospital administrators to reassess their positions across all service lines and market segments. This pilot study explores relationships among the service experience, satisfaction and future patronage decisions among 368 Medicare patients, an often overlooked segment, who were recent users of a hospital emergency room. Results show widespread dissatisfaction with aspects of care. Many of these patients report that they do not intend to return to the same emergency room and would discourage others from choosing it. *[Article copies available from The Haworth Document Delivery Service: 1-800-342-9678.]*

INTRODUCTION

The American Hospital Association reported that 5,533 hospitals closed between 1980 and 1988 (*Hospital Statistics* 1990), for reasons that are numerous and complex, including increased competition and chronic

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overcapacity. As the hospital industry evolves and competition for patients intensifies, the realization is growing that administrators must develop new ways of responding to the changing environment.

In addition to competitive pressures, risk management is a major concern for both administrators and physicians. Research indicates that litigation can be avoided by attention to those factors that improve communication and patients' perceptions of quality. Improved communication and patient education foster realistic expectations, and can greatly reduce the incidence of litigation. (See, for example, Cunningham 1991.)

The elderly comprise the fastest growing segment of the medical care market. Already the heaviest users of health care, as the baby boom generation passes through middle age, the proportion of elderly will increase rapidly. Medicare provides for health insurance for all Americans over 64 years of age, regardless of income or other supplemental insurance. In spite of low reimbursement rates through Medicare's Prospective Payment System (PPS), hospitals necessarily rely on older patients for a large proportion of their clientele.

Achieving occupancy and utilization targets depends on several input streams: referrals from physicians, self-referrals, and admissions through the emergency room (ER). An ER visit is a significant encounter between patient and hospital, and one that affects "repurchase" decisions for future health care.

Health care providers need answers to questions about the attitudes and behaviors of patients with respect to selection, perception, evaluation and retention, and how to apply this information to the design of a successful business strategy. Marketing research provides the most appropriate analytical method to investigate issues of service quality and satisfaction, and to determine how perceptions of quality and satisfaction affect intentions to use the service again and to refer others to the hospital. We applied a consumer satisfaction perspective to the experiences of Medicare patients who had been treated at an ER during the previous year or who had accompanied someone else.

BACKGROUND

Patients in the ER are likely to be anxious and to feel that their problems require immediate attention, whether or not this is medically warranted. The patient sees the service encounter as unpredictable and significant. It may also be unpleasant and distressing, as patients and their companions sometimes endure long waiting periods, uncomfortable surroundings, and the abruptness of overburdened personnel. Unlike most product purchases,

medical care cannot be measured objectively. Good outcomes may follow in spite of poor care; other times even the best care cannot alter a poor result. Yet this experience will influence how patients make future health care choices for themselves and how they will influence others.

Hansagi, Carlsson, and Brismar (1992) observe that emergency care is important in determining future choice. Because of the potential importance of ER visits in determining future choice of a health care facility, patient satisfaction with the ER service encounter is an important aspect of a hospital's competitive advantage. This ER experience will affect future selection of a hospital for emergency and other services. Hospital personnel at all levels must work together to produce a high quality service, Grönroos's (1984) concept of internal marketing, an appropriate response to the twin challenges of excess capacity and increased competition.

This rapidly changing environment has forced administrators to start replacing traditional methods of patient intake and processing with the quality-oriented service systems of more traditional industries (Kritchevsky and Simmons 1992). Since simple, precise measures of hospital care quality do not exist, a multifaceted approach is more appropriate for assessing quality, including measures of patient satisfaction. (See Rubin, Rogers, Kahn et al. 1992.)

In spite of recent efforts, health care continues to lag behind other industries in its approach to consumer satisfaction, and some physicians and administrators remain reluctant to accept patient satisfaction measures. Few hospital administrators have used standardized surveys that would enable cross-comparisons of performance among hospitals. Health care is the last domain where the customer's evaluation is questioned as a valid measure of product or service quality (Mack, File, Horwitz and Prince 1995). The new turbulent paradigms of competition and choice require adaptation and development of organizational responses. Those who do not adapt will soon be overtaken by events.

MEASURING SATISFACTION

Parasuraman, Zeithaml, and Berry (1988) reduce satisfaction with individual service encounters to five factors in their SERVQUAL model. Although this and other gap models have been used extensively in the literature, considerable disagreement remains about their ability to measure patient satisfaction. (See Mishra, Singh, and Wood 1991; Taylor and Cronin 1994; Headley and Miller 1993.) Bitner (1992) finds that, in addition to interactions with staff and the technical outcomes of service provision, the physical environment, or "servicescape," significantly influences customer responses.

Although attempts to measure service satisfaction are often criticized for having produced little actionable information (Coyne 1989), Nelson, Rust, Zahorik and others (1992) find that patient ratings of hospital quality closely match the ratings of hospital employees, and account for almost one third of the variation in profitability. Thus the importance of measuring patient satisfaction is difficult to ignore.

Standard measures among health care organizations are almost nonexistent because surveys are usually developed in-house. Patient satisfaction is usually thought of as a composite of how well the hospital has met the patient's expectations on a variety of dimensions, including waiting time, speed of nursing response, perception of physician or nurses' caringness, physical surroundings, room temperature, and food service. Patients' judgments of their own medical outcomes were thought to be unreliable. More recently, the effect of medical outcomes on satisfaction (Lytle and Mokwa 1992) and differences in the ways that physicians and patients perceive quality (O'Connor, Shewchuk, and Carney 1994) have been considered. Among other dimensions that have been explored are the effects of severity of condition on quality perception (Eastaugh 1986), patient loyalty (MacStravic 1987) and religious affiliation (Andeleeb 1993).

Controversy continues about whether meeting expectations, which may be low and not reflect what the customer wants (rather than expects), is an appropriate way to measure and boost consumer satisfaction. Gilbert, Lumpkin and Dant (1991) describe the interaction of expectations, confirmation and satisfaction with longitudinal changes in customer expectations caused by changes in the competitive environment. In a later study, Dant, Lumpkin and Rawwas (1991) relate "dis/satisfaction" to 14 variables in both a private physician setting and in a clinical setting.

The complex outcomes and interactions of the ER experience influence a hospital's ability to attract repeat business and to generate subsequent positive word-of-mouth communications. Because of its importance for a hospital's image and customer base, we explored satisfaction among 368 urban Medicare patients who had recently used ER services.

METHODOLOGY

Subjects

Between April and June 1993 calls were made to residents in five metropolitan areas: Boston, MA; New York, NY; Stamford, CT; Washington, DC; and Wilmington, DE. Telephone interviewers used random digit dialing to reach and interview patients who had used ERs during the previous 12 months.

However, respondents in our sample who indicated that Medicare paid for their treatment may not be representative of all people on Medicare, which could only be determined through replication on a larger scale. ER patients without telephones would not have been included in the study, possibly contributing to underrepresentation of the elderly poor. However, the proportion of people without a telephone is very small.

The overall refusal rate (those who refused to allow household screening) was 24%, and an additional 16% of eligible respondents refused to cooperate with the interview. For the purposes of this study, only those patients who indicated that their ER visit was covered by Medicare were included in the analysis. Of the 1,316 respondents, 368 indicated that Medicare paid for their ER care, and these constitute our sample.

Measures

Fornell (1992) reported that customer satisfaction research using standard five-or seven-point scales often finds that more than 80 percent of customers report high levels of satisfaction, and that this is probably an artifact. He proposes that the skewness problem is alleviated by extending the scale to improve the respondent's ability to make fine distinctions and by using a multiple-indicator approach. We used a 10-point scale for measures of satisfaction and importance.

Multiple measures were created for the measurement of satisfaction, following Grönroos's (1984) technical and functional satisfaction dichotomy. We defined technical satisfaction as the patient's satisfaction with the medical aspects of the service. Functional satisfaction was the level of satisfaction with the helpfulness of personnel, or interaction with the staff, including the extent of follow-up by ER personnel, provision of instructions for the condition, and amount of information provided. Respondents were asked about comfort and waiting time, and satisfaction with the physical environment of the ER, following Bitner's (1992) concept of "servicescape."

We also used 10-point scales to measure the importance of the factors affecting the respondents' choices of ER. Six different factors affecting awareness of ER choices were measured in terms of their importance. Eleven other factors involved in decision making were measured by asking how important they were to the decision.

RESULTS AND DISCUSSION

Of the 368 respondents, 213 were female and 155 were male. One hundred ninety-one went to the ER seeking medical help for themselves,

while 177 accompanied someone else. When the groups were compared using t-tests of the means, few significant differences were found, therefore the groups are combined.

The respondents (97 percent) had a choice of more than one ER, and about three fifths had previous firsthand experience with the ER they had used last. Over two thirds went to the ER because they perceived their condition to be serious, a proportion that jibes with anecdotal reports by ER personnel about the reasons for ER visits, which often turn out not to be medical emergencies.

Almost half of the respondents said that they went to the ER because they had no regular physician; 10 percent (37 respondents) chose it because it was convenient. We were surprised to find that such a high proportion of elderly patients, disproportionate users of medical care, reported having no regular physician. A few went to the ER because they needed medical care outside of regular office hours or because they found it bothersome to make an appointment. (See Table 1.)

We looked at the percentage of respondents who indicated eight or higher on the 10-point scale of importance for factors affecting their awareness of the ER. Over half said that referrals by others highly affected their awareness of the facility (a score of 8 or above). However, the mean score was 6, with a high standard deviation (3.15). Friends' unsolicited suggestions were a factor for almost 20 percent of the respondents. Referent opinion plays a large role in awareness of ERs among these respondents.

Surprisingly, the respondents' own research was negligible, with only 4 percent scoring it 8 or over (mean score 2.87). Three percent of the respondents indicated that hospital advertising was important (mean = 1.75) and only 1 percent rated physicians' recommendations as important (mean = 2). (See Table 2.)

In looking at the influences that affect the choice of an ER, we found that five factors dominated the process, as measured by the mean scores on the 10-point scale: prior positive experiences (8.80), trustworthiness of the referral source (8.76), ambulance personnel decision (9.10), absence of negative word-of-mouth (8.55), and confidence in referral source (8.44). Of those indicating eight or above on a 10-point scale of importance, the overwhelming majority (98 percent) said that prior positive experiences would be very important in choosing an ER in the future.

Over 90 percent of the respondents indicated that they would choose the ER based on positive information from someone they trusted or because they had not heard anything negative about the ER, underscoring once again the importance of referent opinion in hospital choice. Rated

TABLE 1. Characteristics of ER Medicare Patients in Sample

Characteristics	Percentage
Sex	
Male	42
Female	58
Medical purpose of visit	
Help for self	52
Help for other person	48
Prior experience with the ER	
Yes	59
No	39
More than one ER available	
Yes	97
No	3
Purpose of ER visit	
Serious condition	68
No regular physician	13
ER convenient	10
After hours	6
Appointment bothersome	2

almost as highly was confidence in the referral source. Over half of the respondents indicated that the number of positive referral sources was very important. This concurs with John's (1994) finding that almost half of his sample of recent hospital patients had asked the advice of someone who had used the hospital's services, and nearly all had been influenced by others' opinions.

Convenience was not a very important factor for most of the respondents, probably because all had easy access to urban transportation. Physician affiliation was a nearly inconsequential influence on respondents' choices. Physicians usually have privileges at more than one hospital, particularly in metropolitan settings.

Only 2 percent attached importance to whether or not the facility was a teaching hospital. This is difficult to interpret without additional informa-

TABLE 2. Importance Ratings of Factors Affecting Awareness of ER Services

Factors Affecting ER Awareness	Percent Saying Important*	Mean	S.D.
Referrals from other people	52	6.09	3.15
Friend's unsolicited suggestion	19	3.05	2.92
Own research	4	2.87	2.92
Hospital advertising	3	1.75	1.58
Physician recommendation	1	2.02	1.48

*The percentage includes those who responded eight or higher on an importance scale of 1 to 10.

tion about the respondents' knowledge of the positive and negative aspects of teaching hospitals, such as state-of-the-art care, versus decreased privacy and a greater likelihood of undergoing procedures of all types to serve teaching needs. Its importance would likely vary according to the level of care the patient required. (See Table 3.)

Overall, Medicare patients rate their experiences at the ER as not very satisfactory; no feature of the experience achieved an average rating of six or more. When the respondents rated their encounter with the ER, only one in five perceived the competence of the medical personnel to rate eight or higher on the 10-point scale. Even fewer gave the waiting area top scores, although the average was almost as high as for medical personnel. Patients' scores, shown in Table 4, indicate that almost none of the respondents rated the follow up by ER personnel, the provision of care instructions, the waiting time or the provision of information by the personnel at eight or above. Although numerous articles in the medical literature have stressed the importance of communication, information provided by the ER personnel rated lowest of all the variables, with only 1 percent reporting high satisfaction. This variable had a mean of 1.9 out of 10.

Given the low ratings of the various aspects of their experience, it is logical to expect that overall satisfaction ratings would be low, and they were. (See Table 5.) Only 10 percent of the respondents were satisfied with either their medical care (mean = 3.60) or the staff interaction aspects of the ER experience (mean = 3.97). More (14 percent, mean = 5.33) were satisfied with the facilities.

TABLE 3. Factors Affecting Selection of the Emergency Room

Factors Affecting ER Choice	Percent Reporting Important*	Mean	S.D.
Prior positive experiences	98	8.80	0.79
Trustworthiness of referral source	92	8.76	0.85
Absence of negative word of mouth	89	8.55	0.92
Confidence in referral source	84	8.44	1.00
Number of positive referral sources	52	7.14	1.51
General positive word of mouth	51	7.14	1.66
Number of negative referral sources	30	5.73	2.57
Most convenient	7	4.85	1.66
Physician affiliation with hospital	4	2.11	2.96
Is a teaching hospital	2	3.66	1.65

*The percentage includes those who responded eight or higher on an importance scale of 1 to 10.

TABLE 4. Patient Assessment of Satisfaction with Emergency Room Services

Satisfaction Items	Percent Reporting Satisfaction*	Mean	S.D.
Competence of medical personnel	19	5.98	1.38
Comfort of waiting area	15	5.58	1.57
Extent of follow-up by ER	6	2.56	2.11
Provision of care instructions	5	4.26	1.86
Waiting time	3	4.25	1.82
Information provided by personnel	1	1.92	1.45

*The percentage includes those who responded eight or higher on a satisfaction scale of 1 to 10.

TABLE 5. Proportion of Patients Who Rate Satisfaction with the ER Service Experience Highly Important

Satisfaction Variables	Percent Highly Satisfied*	Mean	S.D.
Satisfaction with medical aspects	10	3.60	2.49
Satisfaction with facility	14	5.33	1.60
Satisfaction with personnel	10	3.97	2.23

*The percentage includes those who responded eight or higher on a satisfaction scale of 1 to 10.

When asked about their future intentions, three quarters of the respondents expected to pass on negative information about the ER, and over half indicated that they would go to another ER if possible. Twenty-two percent would use the same ER again if it was convenient, and 18 percent would take a family member to the same ER. Only 11 percent would recommend the ER or would encourage others to use it, and 7 percent would suggest to others that they go elsewhere. This high level of negative word-of-mouth opinion has the potential to affect the hospital's reputation and to counter promotional efforts. If referent opinion is as strong as some researchers have found and the impact of advertising is as weak as our respondents reported, this is a serious weakness. (See Table 6.)

IMPLICATIONS

Contrary to the results of Hansagi, Carlsson, and Brismar (1992) in Sweden, our preliminary study of Medicare patients indicates a very low degree of satisfaction with the services provided by hospital emergency rooms. The sample demographics were not comparable and the medical care systems are very different, making direct comparisons impossible. Multinational and cross-cultural studies of patient expectations and satisfaction are rare for these reasons; however, this is an important area for further research, especially for hospitals with diverse ethnic populations in their catchment areas.

When looking at future intentions, a substantial majority of the respondents was very likely to make negative comments about the ER to their friends. Half of the respondents reported that they consider the number of

TABLE 6. Patient Reports of Future Intentions

Future Intentions	Percent Saying They Would*	Mean	S.D.
Say negative things about the ER	74	7.75	1.76
Go to another ER if possible	52	6.46	2.73
Use the same ER if convenient	22	4.93	2.50
Bring another family member to ER	18	5.08	2.04
Recommend the ER	11	3.33	2.38
Encourage others to use ER	11	3.13	2.44
Suggest others go elsewhere	7	7.35	2.57

*The percentage includes those who responded eight or higher on a likelihood scale of 1 to 10.

positive referrals, and almost nine out of ten consider the absence of unfavorable word-of-mouth information when choosing a hospital, suggesting that patient satisfaction has a meaningful impact on future patronage.

Negative opinion can cancel out management's efforts to promote the hospital's image in the community. The importance of prior experiences, rated highly influential by almost all of the respondents, is significant not only for the individual, but for those who will be influenced by that person's opinions. The importance of referent opinion, combined with the lack of importance of hospital advertising, is an important issue. It is important to determine whether this holds true to as great a degree for non-emergency choices. Hospitals are implementing more advertising and public relations strategies, and their relative effectiveness is significant as hospitals try to trim budgets. For ER selection, the importance of hospital advertising was negligible.

Quality of care and staff interaction, as perceived by the patient, and subsequent patient satisfaction rate a high priority in both the medical and the interactive aspects of service provision. Our respondents indicated a high probability of passing their opinions on to others. Since dissatisfied customers tend to recount their experiences more often than satisfied ones do, the high level of negativity expressed by our respondents could have an effect out of proportion to their numbers. Hospital administrators need to examine ways to improve satisfaction with care.

Hospital administrators can take easily implementable steps to improve satisfaction. The literature from a number of fields suggests that improved communication is a highly effective method of improving patients' perceptions of the medical experience. Several medical journal articles have stressed the positive correlation between the quality of physician-patient communication and the probability of malpractice lawsuits. Administrators will need to verify which improvements in communication improve satisfaction levels, and how to implement them. Interpersonal communication is a well known component of patient satisfaction, yet the poor scores in this study suggest that hospitals continue to ignore its importance.

The results raise interesting questions about why the scores are so low. Among the issues that need further clarification is whether differences in satisfaction with medical care are age-related. Do discrepancies result from different treatment of the elderly by the staff, or do the elderly perceive their care differently? Other factors, such as education and income must also be explored. Because patient ratings correlate highly with a hospital's profitability, these relationships cannot be ignored. In addition, good physician-patient and staff-patient communication are instrumental in decreasing the risk of malpractice lawsuits.

Medicare patients make up a large part of the patient load, and they can be influencers in the family and among their acquaintances. Younger people, who are often privately insured and therefore constitute a very desirable market segment, may be influenced by older relatives and friends' opinions as well as by their own observations of others' medical care. An understanding of the elements that contribute to satisfaction for all patient groups is essential to hospital marketing and image building.

Finally, the effects of improving ER services may work at cross-purposes with other goals, such as decreasing the use of the ER for minor medical problems and advice. Some hospitals have already divided ER intake into true emergencies, and non-emergency patients, treating them in separate areas. This has improved patient throughput, decreased waiting time, and helped hospitals to meet competition from freestanding emergency clinics.

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