USING COMPLAINT BEHAVIOR TO IMPROVE QUALITY THROUGH THE STRUCTURE AND PROCESS OF SERVICE DELIVERY

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ABSTRACT

This paper reports the impact of a complaint management program on the relative number of complaints regarding structure and process elements of service delivery in a hospital. *Structure* refers to tangible characteristics of a service and *process* refers to the interaction between the consumer and service personnel. The results indicate the number of both structure and process complaints increased as a result of the introduction of a complaint management program; however, the number of structure complaints increased at a greater relative rate.

INTRODUCTION

Complaints provide organizations with an opportunity to recover from their mistakes, retain dissatisfied consumers, and influence consumers' future attitudes and behavior (Estelami, 1999; Swan and Oliver, 1989). An effective complaint management process can be an important quality improvement tool that allows organizations to obtain customer feedback that is useful in making improvements that increase customer satisfaction, loyalty, and profits (American Productivity and Quality Center, 1999; Javetz and Stern, 1996; Mulholland and Dawson, 1998). While choice of service providers is somewhat restricted by third party payers in the healthcare industry, it has not been completely eliminated. Many choices are available when shopping for health plans, and insurers are interested to know when patients are dissatisfied with providers listed in their health plan (Nin Ho, O'Donnell, and Chen, 1998). Patients who are dissatisfied with a service provider belonging to the health plan may express their concerns directly to their employers or choose to enroll in a different health plan when given the opportunity (Bergman, 1994).

Complaint management programs enable organizations to receive complaint information in order to identify and accommodate dissatisfied customers and identify common failure points in order to improve service quality (Allen, Creer, and Leggitt, 2000). It is important for an organization to view complaints as a quality improvement tool and make it easy for customers to complain (National Performance Review, 1996). Quality has long been defined in terms of structure, process, and outcome (Donabedian, 1966). This paper reports the impact of a complaint management program on the relative number of complaints regarding the structure and process elements of care. Structure refers to tangible characteristics of a service and process refers to the interaction between the consumer and service personnel. Our real-world, one hospital, research setting did not allow us to gather outcome data as this was not tracked in the complaint management program under study. The results indicate that a greater number of process complaints than structure complaints were received, both before and after the introduction of a complaint management program. The number of structure complaints, however, increased at a much greater rate after the complaint management program was introduced.

BACKGROUND

Intense competition in the healthcare marketplace is a factor motivating hospitals to develop and implement quality improvement activities as a means to differentiate themselves from competitors and attract new patients (Holmboe, Meehan, Radford, Wang, and Krumholz, 2000). Many efforts used to evaluate healthcare delivery systems have concentrated on clinical components including medical audits and peer review. While these measures effectively evaluate the quality of care delivered by providers, they do not take into account quality from the patient's perspective (Nelson-Wernick, Currey, Woodbury, and Cantor, 1981). Quality

improvement focuses on the customer, so it requires feedback as vital input (Javetz and Stern, 1996).

Health care organizations can learn a great deal about areas in need of quality improvement by asking customers, including patients, their families, their employers, and their insurers. Customers can provide special insight on clinical areas and services that receive the most frequent complaints and/or those that are in most need of improvement. Formal healthcare complaints are important indicators of consumer perspectives about quality (Harrington, Weinberg, Merrill, and Newman, 2000). More recently, health care organizations have become more customer-oriented as patient satisfaction has increasingly been recognized as an important quality improvement initiative, and an important component in the assessment of quality of care (Burroughs, Cira, Chartock, Ross, Davies, and Dunagan, 2000; Zemencuk, Hayward, Skarupski, and Katz, 1999).

Satisfied patients serve as referrals for a healthcare organization by encouraging others to use the service provider. Patients' choices of health care organizations are influenced by the opinions of other patients (Gemme, 1997). The influence a dissatisfied patient can have on other potential customers is equally important to consider. Customer dissatisfaction can extend beyond the immediate event through conversations that disgruntled customers have with others. A provider's reputation can be damaged from negative word-of-mouth actions taken by dissatisfied customers (Clark, Kaminski, and Rink, 1992; National Performance Review, 1996; Richins, 1983). The average dissatisfied customer will tell between nine and ten other people about the unsatisfactory experience, with one in every eight customers recounting the poor service event to more than 20 individuals (Technical Assistance Research Program, 1979).

Understanding Complaints

Consumers in the healthcare industry are reluctant to complain because they fear they may receive lower service quality if and when the need for future care arises (Tax and Brown, 1998). Less than half of the patients who have a negative experience with a hospital respond actively to change the dissatisfactory situation, which suggests that written complaints only reflect a small portion of the total complaints (Carmel, 1990). Many times customers will lodge complaints with the nearest employee they can find, so organizations could benefit from requesting that employees attempt to capture the complaint as soon as possible (Dagher, Kelbert, and Lloyd, 1995). While it is important to ensure that complaints delivered in this manner are communicated back to the organization, it is vital for a more accurate assessment of organizational performance (Tax and Brown, 1998). Hospitals that give close attention to oral complaints made to hospital personnel will receive a more accurate reflection of the level of dissatisfaction with hospital services (Carmel, 1990). Potential problems in the process of care include bottlenecks, waits, delays, queuing, and interruptions; communication failures; errors and things going wrong; misplaced charts, equipment, and other necessary tools; frustrations, irritations, and anger; rework and do-overs; and places where the phone is used to find missing paperwork or straighten out other problems (Nelson, Batalden, and Ryer, 1998).

Given the important influence of complaint management on patient satisfaction and loyalty, health care organizations will benefit from welcoming and encouraging patient complaints. In "best practice" organizations outside of healthcare, customer complaints are viewed as opportunities for improvement (American Productivity and Quality Center, 1999). However, in healthcare organizations, complaint data has only recently been recognized as a management tool (Allen, Creer, and Leggitt, 2000). While many hospitals have instituted procedures for handling patient complaints in response to accreditation requirements, some organizations still do not track complaints for improvement purposes and/or do not formally capture all complaints (Allen, Creer, and Leggitt, 2000; Pichert, Federspiel, Hickson, Miller, Gauld-Jaeger, and Gray, 1999). Complaints offer

valuable insight into areas of the organization that are in need of improvement. Organizations that do not respond to customer complaints risk a negative image in the eyes of the consumers who complained (Clark, Kaminski, and Rink, 1992). The resolution of complaints can build customer confidence in the organization (National Performance Review, 1996; Singh and Wilkes, 1996).

Structure and Process of Care

Health care delivery elements can be divided into structure, process, and outcomes. Structure characteristics of a service refer to tangible characteristics of the service system. The structure of a service includes the physical environment and physical facilities in which the service occurs, as well as billing procedures and other amenities such as food and parking. Other specific aspects of the environment that comprise the structure of a service include comfort of resting areas, layout and comfort of rooms, overall cleanliness, décor, cheerfulness of the facilities, convenient locations, and modern equipment (Fottler, Ford, Roberts, Ford, 2000). Even before the purchase, consumers commonly look for cues about the organization's capabilities and quality that are evident in the physical environment (Bitner, 1992). The physical environment delivers a message about the organization, its products, and its quality long before the actual encounter takes place, and is much more important for services than it is for most goods (Hutton and Richardson, 1995).

Consumers' judgments of satisfaction and service quality for intangible services outside of healthcare are more likely to be influenced by tangible items, such as the physical environment (Fowler, MacRae, Stern, Harrison, Gerteis, Walker, Edgman-Levitan, and Ruga, 1999). Studies in the healthcare industry indicate that the physical environment is an important determinant of patient satisfaction, and is often rated the lowest on satisfaction surveys (Bowers, Swan, and Koehler, 1994; Singh 1990).

Process characteristics are based on the interaction between the consumer and service personnel within the service environment. The process includes characteristics such as responsiveness, friendliness, courtesy, competence, access, communication, and availability of the physician and other hospital staff. Other process characteristics include interpersonal relationship between patient and caregivers, and caregiver expressions of empathy (Reidenbach and Sandifer-Smallwood, 1990). Interpersonal relations between the patient and physician include the actual healthcare delivery and play an integral part in the development of patient satisfaction.

Patients frequently rank process characteristics of communication and interpersonal aspects of the healthcare experience highest in importance (Cohen, 1996; Hall and Dornan, 1988; Ross, Steward, and Sinacore, 1993; Williams and Calnan, 1991). In fact, perceptions of quality are defined by such process elements as communication and understanding of physicians, nurses, and other medical staff, and these personal interactions are very important in influencing satisfaction (John, 1990; MacStravic, 1994; Nelson, Batalden, and Ryer, 1998). Since patients tend to judge the quality of the healthcare experience based on their perceptions of the emotional aspects of the encounter rather than clinical aspects, interpersonal relations play an important role in patient satisfaction and perceived quality (Lytle and Mokwa, 1992; Mullan, 2001; Zifko-Baliga and Krampf, 1997). The quality of the interactions between the hospital staff and patient is reflected in the patient's level of satisfaction with different aspects of care (Bell, Krivich, and Boyd, 1997).

Outcomes refer to the result of the service interaction or process, such as consumer satisfaction and quality perceptions, and encompass both physical well-being and emotional well-being (Zifko-Baliga and Krampf, 1997). Previous research has documented the importance of outcome elements such as quality of treatment received. Outcomes, such as satisfaction and perceptions of quality, are influenced by the structure and process characteristics of the service.

RESEARCH OBJECTIVE AND METHOD

The objective of this research is to identify the impact of a complaint management program on the relative number of complaints on the structure and process elements of care. Because interpersonal relations are so important to patient satisfaction (MacStravic, 1994), and patients can typically judge the process elements of the healthcare encounter (Lytle and Mokwa, 1992), the following research proposition is tested in this study:

> *P_1 Complaints regarding the process of care will be more frequent than complaints regarding the structure of care.*

The introduction of a complaint management program in which the organization encourages complaints for quality improvement purposes should lead to more complaints being documented and tracked (Allen, Creer, and Leggitt, 2000). Fewer than half of the patients who have a negative experience with a hospital respond actively to change the dissatisfactory situation, suggesting that written complaints attached to satisfaction questionnaires reflect a conservative estimate of patients who actually have a complaint (Carmel 1990). As a result, the second research proposition tested is:

> *P_2 Complaints regarding both the process and structure of care will increase following the introduction of a complaint management program.*

Consumer perceptions of quality are strongly influenced by tangible aspects (Bowers, Swan, and Koehler, 1994; Fowler, et al., 1999; Singh 1990). However, tangible components of the service are very difficult to control (Hutton and Richardson, 1995), and the consumer may believe their complaints will not influence these factors. Furthermore, patients may perceive that complaints regarding the environment or structural aspects of a hospital are not as serious as complaints regarding the process aspects such as care and treatment (Allen, Creer, and Leggitt, 2000). With a complaint management program present they may perceive that the organization is interested in their feedback, therefore complaints about structure aspects of care may increase at a greater rate than process complaints. Because of this, patients will provide complaints about the structure of care when solicited but otherwise would not. As a result, the third research proposition tested is:

> *P_3 Complaints regarding structure will increase at a higher rate than complaints regarding process following the introduction of a complaint management program.*

In order to investigate the research propositions, complaints were tracked over a two-year period. A community hospital was identified that had recently implemented a complaint management program that agreed to track complaints and provide data to the researchers for analysis purposes. There was an average of 3,400 patients per year admitted to the community hospital over the past three years. The year before the complaint management program was implemented, the hospital received complaints from approximately two percent of the patients admitted. After the implementation of the complaint management program, the number of complaints from patients admitted to the hospital increased to four percent. This percentage of complaints is consistent with other hospitals that report similar complaint rates (Mulholland and Dawson, 1998; Mace, 1998).

The protocol for tracking complaints involved three steps. Patients were informed of the complaint process upon admission to the hospital and were provided with written information on how to formally initiate the complaint process. In addition, posters encouraging patients to express complaints were placed throughout the hospital. If a patient elected to file a complaint, a service representative was instructed to record the complaint on a patient complaint log and forward the log to the appropriate department manager. The formal patient complaint log contained information for patient information, date and place of occurrence that prompted the complaint, the

content of the complaint, and the action taken to resolve the complaint.

Complaints were logged and tracked for follow-up, documentation, and improvement purposes. Two researchers coded the complaint forms into structure or process complaints and were in 95% agreement. The items that were not in agreement were examined and a consensus was reached between the two researchers regarding the category they were to be placed in. Structure complaints included complaints regarding 1) food service; 2) the environment (aspects of the physical facility such as accommodations and room); 3) equipment in the facility (ranging from technological to patient bed); 4) billing (difficulties with billing process concerning insurance or patient bill); and 5) lost and found (reports of missing or lost items during the hospital visit). Process complaints included complaints regarding 1) physician; 2) all staff members other than physician; 3) communication (interpersonal interactions between the patient and hospital staff); 4) time (spent waiting on processes, procedures, discharge); and 5) continuum of care (cohesiveness of various components of the hospital stay such as care process, treatment, and discharge planning).

Complaints were tracked in two time periods. Complaints were tracked for the full year preceding the implementation of the complaint management program and for one full year after the complaint management program was put in place. This hospital was identified after the complaint management program was in place. Data had been collected by the hospital prior to the complaint management program being put into place. Although data had been collected, it had not been categorized into structure and process elements. A total of 65 complaints were received in the first period and 146 complaints were received in the second period.

RESULTS AND FINDINGS

The complaints were analyzed using chi-square analysis to determine the interaction between complaint increase and complaint type and whether these differences were significant from the first year to the second year of complaint collection. The results of the overall chi square analysis were significant at the .10 level ($chi^2(1)=3.48$, $p<.10$). The results were not significant at the .05 level, however, the .10 level may be used in exploratory research with relatively small sample sizes (Huck and Cormier, 1996). The number of process and structure complaints by year is shown in Figure 1. A breakdown of the process and structure complaints specific categories is shown in Figure 2.

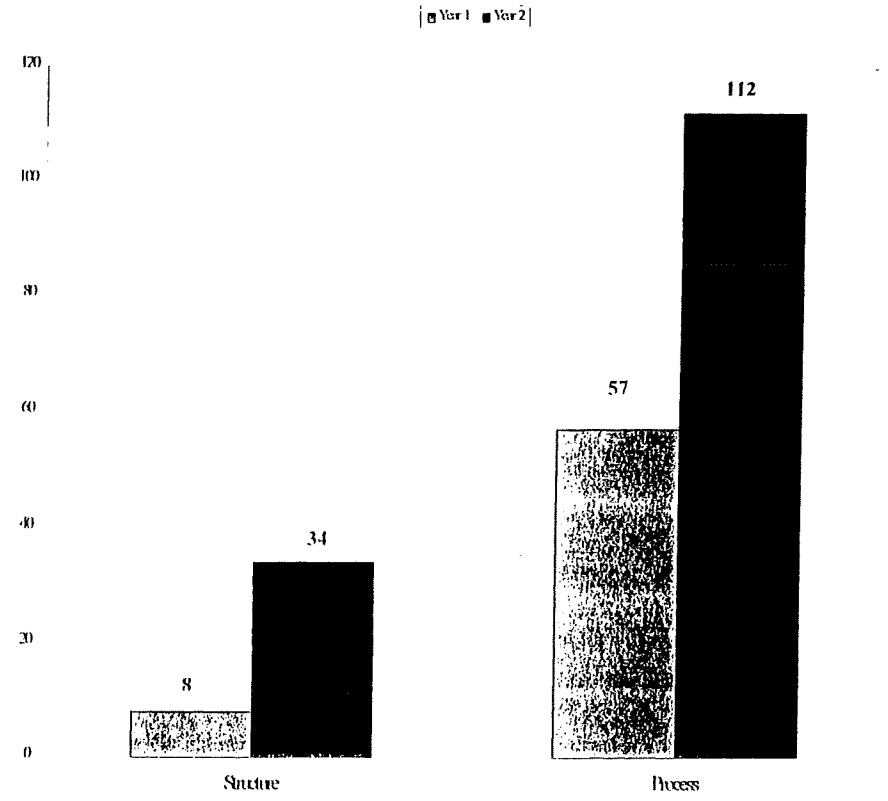
P_1 - Complaints Regarding the Process of Care Will Be More Frequent Than Complaints Regarding the Structure of Care

There were significantly more complaints regarding the process of care than the structure of care both before and after the complaint management program was introduced. There were a total of 211 complaints for the two years. Of the 211 complaints, 169 complaints were related to process and 42 complaints were related to structure; thus Proposition 1 was supported. The process complaints involved staff members (29%), physician (16%), time (16%), communication (16%), and continuum of care (3%). The structure complaints involved equipment (7%), environment (6%), food (4%), billing (2%), and lost and found (1%).

P_2 - Complaints Regarding Both the Process and Structure of Care Will Increase Following the Introduction of a Complaint Management Program

Of the 211 complaints received, there were 65 complaints in Year 1 and 146 complaints in Year 2. This represented a 125% increase in complaints, providing support for Proposition 2. While the increase in complaints may appear to be a disadvantage to an organization, an effective complaint management program can result in more complaints with more opportunities to recover dissatisfied customers and to enhance quality improvement in the service delivery process.

Figure 1
Increase in Complaints by Type from Year 1 to Year 2



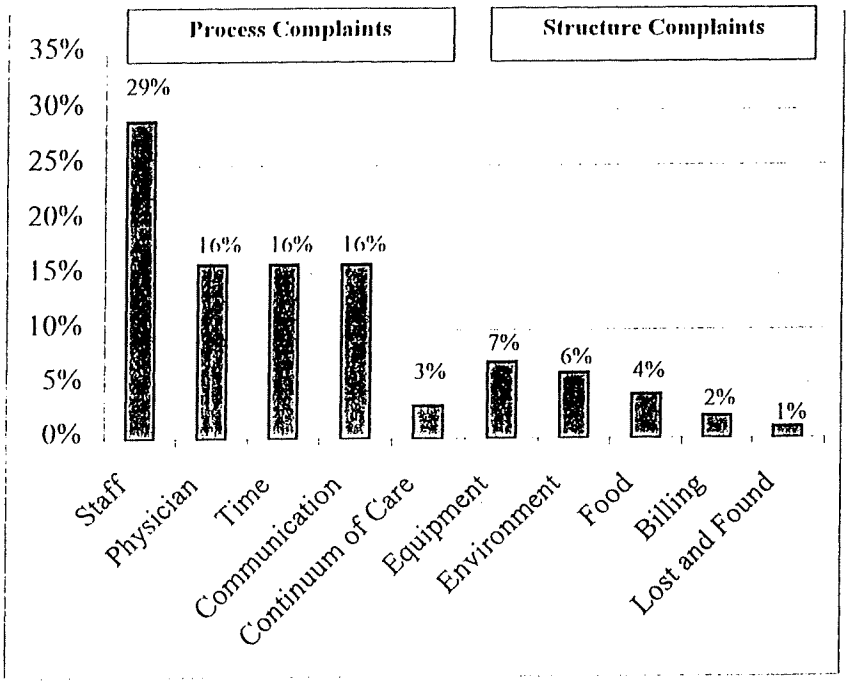
P3 - Complaints Regarding Structure Will Increase at a Higher Rate Than Complaints Regarding Process Following the Introduction of a Complaint Management Program

Of the 65 complaints received in Year 1, 8 complaints (12.3%) were related to structure and 57 complaints (87.7%) were related to process. Of the 146 complaints received in Year 2, 34 complaints (23.2%) were related to structure and 112 complaints (76%) were related to process. Structure complaints increased from 8 to 34, representing a 325% increase. Process complaints increased from 57 to 112, representing a 96.5% increase. While the process complaints continued to greatly outnumber the structure complaints, the structure complaints did increase at a much greater level providing support for Proposition 3.

DISCUSSION

The findings support previous work that suggests that a complaint management program will increase the number of complaints that the organization can use for quality improvement purposes (Allen, Creer, and Leggitt, 2000). This study also illustrates the importance of categorizing complaints, as reported by other researchers (Lim, 1998; Mace, 1998; Pichert, et al., 1999). By categorizing the complaints into structure and process elements, the organization can work toward resolving the complaints by identifying trends and making necessary improvements to ensure that those complaints do not recur. This study also provides support for previous research findings that patients complain about process elements of a service encounter more frequently than structure attributes of the

Figure 2
Complaints by Category



encounter (Lytle and Mokwa, 1992).

Our research further contributes to the complaining literature by showing that consumers, when solicited, will offer more complaints about both process and structure elements, but with a greater increase in complaints regarding structure elements. This finding is important as a complaint management program may obtain unspoken information that can help the organization further its quality improvement efforts. The increase observed in complaints related to structure elements illustrates how certain categories of complaints go unreported without a complaint management program, making it impossible for management to address those complaints.

Limitations of the research and directions for future research should be noted. Outcomes were not examined, as the objective of the research was to analyze a complaint management process as opposed to the outcomes that might derive from it; however, future research should investigate this area. The setting was a real time complaint process rather than a controlled experiment; however, there were no institutional changes that would have influenced the results. The research reported was based on a single hospital, which may limit the generalizability of the findings. Nonetheless, the results offer important insight into the content of complaints received by an organization and the impact of the introduction of a complaint management program.

CONCLUSIONS

In this paper the impact of the implementation of a complaint management program on the number of complaints regarding the structure and process elements of care was examined. The importance of tracking complaint data has been discussed and recommendations for complaint

management have been presented. The results indicate the number of process complaints was greater than the number of structure complaints, both before and after the introduction of a complaint management program. The number of structure complaints increased at a much greater rate after the complaint management program was introduced.

The growing importance of quality improvement has prompted many organizations to make patient satisfaction a primary goal. Quality improvement is enhanced when an organization can track service failures through the development of effective complaint management programs. Health care organizations can become more customer-oriented by taking advantage of the information provided by patient complaints, increasing patient satisfaction and quality improvement in the process. By understanding the complaints in terms of structure and process of care, quality improvement initiatives can be more specifically focused on areas that are most important to customers and in need of improvement.

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