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Pilot test of an outpatient satisfaction survey instrument

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PILOT TEST OF AN OUTPATIENT
SATISFACTION SURVEY INSTRUMENT

A Thesis
Presented to
The Faculty of the Department of Occupational Therapy
San Jose State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Renaissance Winter
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ABSTRACT

PILOT TEST OF AN OUTPATIENT SATISFACTION SURVEY INSTRUMENT

by Renais Winter

This paper describes the design and pilot test of a patient satisfaction questionnaire, tailored for an outpatient rehabilitation department, incorporating elements of care suggested in the literature and in sample questionnaires. The sample of convenience was comprised of 53 English-speaking subjects, all of whom had received a minimum of 3 therapy treatments prior to participation.

Results of the pilot study were analyzed both to revise the instrument as well as to highlight areas of service on which to focus quality improvement efforts. The data indicated that the pilot instrument encompassed most service issues involved in patient satisfaction. Revision entailed the elimination of questions shown to be relatively unimportant to patients and the modification of questions to incorporate patients' use of language. Service improvement priorities suggested by the data include: department and referral source communication, outcomes equaling patient expectations, completeness of treatment, and patient success with home programs.

Acknowledgement

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CHAPTER 1

Introduction

Purpose

The purpose of this pilot study was to develop an instrument to measure patient satisfaction with outpatient health care services delivered by the rehabilitation department of San Francisco General Hospital (SFGH). The resulting questionnaire will be used as part of SFGH's continuous quality improvement (CQI) program to recommend changes in service delivery to improve the quality of health care in this department and to serve as a baseline against which to measure patient perception of service after implementation of changes. The survey, along with other quality of care assessment tools, will be presented to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) during the accreditation review.

Statement of the problem

Instruments for hospital surveys of patient satisfaction often contain detailed questions on the care delivered primarily by physicians and nurses. These instruments may include a small section pertaining to the services of the rehabilitation department. While a small section may be sufficient to give an indication of general satisfaction with rehabilitation services, it is not sufficient to give information in great enough detail to allow the rehabilitation team to assess and improve care. Some rehabilitation departments have constructed questionnaires for their own use but these

questionnaires may not be generalizable to the rehabilitation department in another facility. Some rehabilitation department questionnaires may also focus primarily on the services of physicians and nurses and not ask similar questions regarding the services provided by occupational therapists, physical therapists and speech pathologists. The construction of custom-made instruments may contribute to biased response data.

Before attempting to create a survey instrument, the researcher conducted a literature review and solicited survey instruments from rehabilitation departments with the intention of finding an instrument appropriate for the needs of SFGH. After reviewing both survey literature and instruments, the researcher failed to find an instrument suitable for this study.

In creating a survey instrument, the researcher merged and adapted questionnaires from other facilities to focus on assessing the services of occupational therapists, physical therapists and speech pathologists. In pilot testing the instrument, the researcher examined data for indications of the need for further adaptations of the instrument as well as for indications of the need for improvement of services or for further research.

Assumptions

The researcher assumed that qualities related to satisfaction with the services of physicians and nurses would also be qualities that are valued in the services provided by other professionals. These qualities included strong communication skills, personal

concern, technical skills, and interpersonal skills. The researcher also assumed that aspects of care that have been shown to be linked to patient satisfaction with hospital services may be applied to a department of a hospital if those services are provided by the department.

Research Questions

In this pilot study, the researcher attempted to answer the following questions: (1) To what extent are patients satisfied with outpatient rehabilitation services? (2) For what aspects of care do these patients report relatively less satisfaction? (3) Are the aspects of care measured by this instrument important to the patient? (4) What aspects of care important to patient satisfaction need to be added to the survey instrument? (5) What aspects of care that are relatively unimportant to the patient need to be deleted from the survey instrument?

Definitions

Satisfaction--the state of having one's expectations, needs, demands or wishes fulfilled. (Webster's Encyclopedic Unabridged Dictionary, 1989, p. 1270).

Aspects of care--subgroupings that categorize interactions, environment, interventions, and attitudes of facility and/or staff. Included in these subgroupings are the following: (1) availability--ease of obtaining care; (2) communication/information--clarity, appropriateness, thoroughness of communication method; and quality and quantity of information given by staff; (3) participation--

actions by staff and patient that indicate or promote patients' sense of self-efficacy in their own health care; (4) interpersonal--actions by staff that show concern and respect for patient and patient's values; (5) technique--patient perceptions of the competency of therapists; (6) results--patient perceptions of the efficacy of the treatment; and (7) access/physical environment--ease of locating and gaining entry to facility and department/ physical pleasantness of facility and department.

Outpatient rehabilitation services--all services provided by the rehabilitation department including but not limited to services provided by occupational therapists, physical therapists, physical therapy assistants, speech pathologists, therapist aides and receptionists. Types of services provided include patient evaluation, patient education, training in adaptive techniques, assessment for and training in the use of assistive equipment, therapeutic exercise, modalities, splinting, family training, scheduling, and referrals.

Significance of the Study

Occupational therapy's roots in the philosophy of moral treatment have historically lead to a practice that places the patient, not the disability, at the center of treatment. The philosophy of moral treatment emerged in the early nineteenth century and was focused on providing humane, normalizing activities for the mentally ill (Pedretti & Zoltan, 1990). Occupational therapy (OT) treatment has traditionally been based on respect, caring, and inclusion of the individual in the "regimen of daily life" (Bockoven, 1971). Sachs and

Labovitz (1994) characterize OT as a "caring profession" that "encompasses concern for the entire spectrum of human needs" (p.998). The American Occupational Therapy Association (AOTA) standards of practice (1993) state that the goals of OT intervention shall be "appropriate to the individual's needs, personal goals, and expected outcomes after intervention" (p. IV.3) and that the occupational therapist "advocates for creative, adaptable options that produce satisfaction for the consumer" (p. VI.6).

Howard (1991) contends that cost containment, productivity and efficiency goals of health care facilities have placed constraints on the treatment that occupational therapists are paid to provide. Reimbursement decisions are often based on thinking that values "technology and the scientific method" more than the "holistic use of a variety of treatment methods" (p.880). She adds that some reimbursement policies may conflict with traditional OT values and, consequently, be transforming the way OT defines itself. Spiegel and Blackhaut (1980) contend that third party reimbursement policies reward technological treatments and penalize for time spent listening and explaining (p. 210). Burke and Cassidy (1991) caution that the economics of the system rather than the needs of the patient may dictate services rendered. They see the occupational therapist as balancing the "moral commitment we have to the individual with the economic responsibilities we have to our employer" (p.174). Ellek (1993) advises occupational therapists to become familiar with quality assurance instruments as these instruments have an

important role in health care provision and policy formation.

Occupational therapists can help to address the complex needs of patients, promote the financial goals of the facility, and determine if OT services are meeting AOTA standards by researching the level of patient satisfaction in departments where OT has a large presence.

CHAPTER 2

Literature Review

Introduction

The following review explores the use of patient satisfaction surveys in quality management and the importance of consumer satisfaction to the healthcare industry. The trend toward interdisciplinary collaboration in both quality assessment and service provision will be examined. The review includes an overview of present day practices in the measurement of patient satisfaction as well as a discussion of the flaws of satisfaction survey techniques and results.

Quality Management and Patient Satisfaction

In the present day competitive health service industry, health care providers pay increasingly closer attention to quality measurement and management. Government agencies and health care organizations scrutinize facilities and rate them according to quality of care measures. Facilities compete to obtain referrals and to attract and keep customers (Munro, Jacobsen, & Brooten, 1994; Steiber & Krowinski, 1990). Hospitals must make a transition to patient-focused organizational systems to meet accreditation standards (JCAHO, 1995, p.33). Outcome measurements used to assess quality of care now frequently include patient satisfaction (Banta, 1992; Carey & Seibert, 1993; Munro et al.). Steiber and Krowinski suggest that for a healthcare organization to succeed, it

must give customer satisfaction a central place in its organizational strategy, especially as ratings of quality and patient satisfaction with hospital care are highly correlated. Level of satisfaction with care relates to patient reports of willingness to return to or to recommend the health care facility (Rubin, 1990). Leebov, Vergare, and Scott (1990) promote concern for patient satisfaction, and discuss the patient as a consumer who expects value for money spent and who can be a source of publicity. They add that the dissatisfied consumer can use up valuable staff time, implying that attention paid to patient satisfaction can help keep costs down. According to Munro et al., patient satisfaction has been shown to be a better indicator of the results of nursing care than some traditional measures such as mortality and morbidity. Patient satisfaction, in addition to being a measure of quality of care, contributes to improved patient compliance with treatment plans (Banta; Ley, 1988; Spiegel & Blackhaut, 1980; Steiber & Krowinski). Lebov et al. link quality of communication to patient compliance. Peloquin (1993) found that patients credited interpersonal aspects of health care services, such as a caring attitude, with giving them courage in facing their illness or disability.

Collaboration and Quality Improvement

While research that pertains solely to occupational therapy is invaluable to the profession, interdisciplinary collaboration seems to be the main thrust of recent quality improvement thinking. Standard TX. 1.3 in the JCAHO (1995) hospital accreditation manual specifies

that "qualified individuals plan and provide the care, treatment, and rehabilitation in a collaborative and interdisciplinary manner, as appropriate to the patient" (p. 130). The manual states under Pl. 1 and Pl. 1.1 that "until improvement activities become collaborative (across departments, interdisciplinary), they will be less effective in improving performance" (JCAHO, p. 225). Kibbe, Kaluzny, and McLaughlin (1994) argue that practice guidelines, which have often been targeted at individual physicians, are more appropriately focused on organizations. They add that quality and cost of care are responsibilities shared by all members of a health care organization and that the provision of health care services is a complex and collaborative process (p. 184). Responding to the CQI successes of interdisciplinary practices, some medical schools are training new physicians in skills needed to be team members (Headrick & Neuhauser, 1994). Collaborative efforts to improve outcomes can maximize resources, allow for combining of data bases and put the focus of quality improvement on the patient or consumer rather than on specific disciplines or individuals (Reiley, Seibert, Miller, Canney, & McHugh, 1994). Patient-centered care (PCC) focuses on meeting patient needs as defined by the patient rather than the health care provider and may entail not only collaboration but also cross-training of providers (Wakefield et al., 1994). As a further extension of the concept of patient-centered care, Sentara Health Systems has instituted cross-training and decentralization of services as part of

their effort to provide patient-focused health services. ("CEO interview," 1992). In addition to concerns of providing patient-focused services, advocates of cross-training claim the practice will allow institutions to cut as much as 30% from the cost of labor (Perry, 1991). The occupational therapist working in collaboration on quality improvement projects will ensure that the values and concerns of the profession remain visible and viable.

Measurement of Patient Satisfaction

It is possible that some health practitioners may accurately discern dissatisfaction in a patient, however, Lebov et al. (1990), citing a study by Merkel (1984), maintain there is no correlation between "actual patient satisfaction and physician perception of patient satisfaction" (p. 45). According to Munro et al. (1994), there are many survey instruments used to measure patient satisfaction but no standardized approach, which makes comparisons among studies unreliable. Wolff (1994) states that patient satisfaction surveys can be used to compare results between hospitals. The American Hospital Association, in its Quality Measurement and Management Project, is attempting to develop a uniform system to establish national norms for patient satisfaction with hospital performance (Steiber & Krowinski, 1990).

How does one define patient satisfaction? Yerxa, Burnett-Beaulieu, Stocking, and Azen (1988) cite Brophy's definition of satisfaction as "a sense of well-being in one's subjective experience" (p. 215). Spiegel and Blackhaut (1980) describe patient satisfaction

as implying a belief that one has obtained the maximum benefit from health services received even though one may be in a poor state of health. Bendtsen and Bjurulf (1993) contend that patients who receive care that most closely approximates their expectations will express the greatest satisfaction. Munro et al. (1994) also define satisfaction in reference to a positive correlation between patient expectations and their perceptions of nursing care received. Steiber and Krowinski (1990) compare expectations with perceptions of care and add that in situations that patients do not understand, they will lower their expectations.

According to Steiber and Krowinski (1990), ten elements around which patient satisfaction surveys are often constructed are: "(1) accessibility/ convenience, (2) availability of resources, (3) continuity of care, (4) efficacy/outcomes of care, (5) finances, (6) humaneness, (7) quality/ competence, (8) information gathering, (9) information giving, and (10) pleasantness of surroundings" (p.17). Many dimensions of performance suggested by JCAHO (1995) to measure quality of health care, although not specified as patient satisfaction criteria, are similar: efficacy, availability, timeliness, continuity, respect and caring (p. 32). Aday, Andersen, and Fleming (1980) consider the aspects of "convenience of services, availability of services, financing care, humanness of doctors, quality of care, facilities, and continuity of care" of importance (p. 143). An inpatient satisfaction questionnaire discussed by Carey and Seibert (1993) includes religious care as one of its eight scales. The La Monica-

Oberst survey as described by Munro et al. (1994) is divided into 3 subscales: trust, technical-professional, and education. Dimensions of care proposed by Ware, as put forth and used by Bendtsen and Bjurulf (1993) in their own study, fall into 8 categories: "(1) art of care, (2) technical quality of care, (3) accessible, (4) finances, (5) physical environment, (6) availability, (7) continuity, and (8) efficacy/outcome of care" (p. 244). Peloquin (1993) stresses that elements leading to higher levels of patient satisfaction include the importance of a caring attitude and treatment of the patient, not the disease. Yerxa et al. (1988) developed a questionnaire that measures patient satisfaction with the patient's own performance. However, dissatisfaction with level of performance may not indicate a consumer's rating of care received. The dissatisfaction may reflect a patient's negative self-judgment regarding ability to follow-through independently.

Drawbacks of Satisfaction Surveys

Wolff (1994) states that 80% of respondents to patient satisfaction surveys indicate satisfaction with services received. One explanation for the positive trend is that satisfied patients are more likely to participate in a survey than dissatisfied patients (Ehnfors & Smedby, 1993; Rubin, 1990). Steiber and Krowinski (1990) elaborate that although patients are generally satisfied with the care they receive, they may not be satisfied with particular elements of care. Aday et al. (1980) caution that because the majority of consumers express high levels of satisfaction with care, questionnaires must be

developed with care to avoid bias that contributes to this tendency. Spiegel and Blackhaut (1980) describe a study in which quality of care as analyzed by the researchers was compared to patient satisfaction ratings. Of those reporting high levels of satisfaction, 33% had actually received fair to poor care as determined by chart review analysis. However, congruency with researchers' ratings was found in 83% of those reporting dissatisfaction (p. 111). Munro et al. (1994) report that results from the La Monica-Oberst survey were positively skewed and suggest that questionnaires include both positively worded and negatively worded questions. Examples of positively and negatively worded versions are: "gives the impression that my care is top priority," and "is not as attentive as she/he should be." Everett and Boydell (1994) contend that survey results may measure patients' reported experience of outcomes expected and valued by the staff but may fail to represent patient satisfaction with services that patients consider important. The authors used a survey instrument created and administered by patients to test the validity of a prior survey. They suggest using both quantitative and qualitative methods to accurately measure patient satisfaction. Williamson (1992) relates that consumer narratives often contain detailed information not asked for nor found in patient satisfaction surveys.

Criticisms of patient satisfaction questionnaires as bases for shaping policy suggest that consumers are not appropriate sources of judgment regarding technical issues and that questionnaires are a

"soft measure" whose reliability and validity are difficult to establish (Aday et al., 1980). Studies of patient satisfaction often show that the technical aspects of care rate the highest satisfaction (Hill, Bird, Hopkins, Lawton, & Wright, 1991). Banta (1992) contends that, while patients may be more qualified to judge the interpersonal aspects of care, they are also quite capable of distinguishing differing levels of technical excellence.

Other criticisms of patient satisfaction surveys relate to the construction of the instruments. Carey and Seibert (1993) state that although customer satisfaction surveys are widely used, they are usually of a very simple design and have not been psychometrically evaluated. Out of 21 instruments surveying patient satisfaction with nursing care examined by McDaniel and Nash (1990), only nine had established psychometrics with formal procedures. Validity of patient ratings has been supported by comparison of ratings with independent observations, chart review, and staff confirmation of reports of omissions (Meterko, Nelson, & Rubin, 1990).

Summary

Patient-focused care and the inclusion of patient satisfaction as an important outcome of care are part of the ethical foundations of OT practice. Pressure from third party payers has constrained the traditional practice of OT, but the trend in health care toward patient-centered care and continuous quality improvement may provide an avenue to reaffirm the importance of the OT perspective.

Patient surveys are the most common way of measuring satisfaction with services. Criticisms of survey instruments as lacking standardization are significant for studies that attempt to compare institutions or generalize results. For CQI efforts within a department, a survey that has not been standardized can still yield valuable information about patient perceptions of care and provide indications of the need for and direction of improvements in service.

Because the response curve for satisfaction surveys tends to be positively skewed, the researcher must construct the instrument to counteract that trend and to allow for as much sensitivity as possible in response categories (Aday et al., 1980). The instrument must appear easy to complete, be as anonymous as possible, and allow room for respondents to add concerns not originally included.

Although questionnaires surveying patient satisfaction with physicians, nurses or hospital-wide services are numerous, no published questionnaires were found whose measurement of outpatient satisfaction focused on the services of occupational therapy, physical therapy, and speech pathology in a rehabilitation department. The articles that were found regarding patient satisfaction with rehabilitation services tended to focus on a single diagnosis or on satisfaction with a modality or assistive device. The researcher requested unpublished questionnaires from facilities with rehabilitation departments. A critique of these instruments appears in the methodology section.

Conceptual Framework

The concept of CQI is highly compatible with systems theory thinking. Patient satisfaction surveys may be seen as part of the feedback loop through which the hospital system can receive, process and respond to the most vital element of the hospital system--the consumer. The Model of Human Occupation (MOHO) as described by Kielhofner (1985), with its base in systems theory, is a natural framework through which to view the issue of patient satisfaction and the interaction of the hospital system with the varied levels of patient perception.

In MOHO, ". . . the system represents Man, and the interaction of the human system with the environment is human occupation" (Kielhofner & Burke, 1980). The rehabilitation department environment includes the people, objects and events that the patient encounters. The responsiveness of this environment to the patient's output--communication, behavior, expressed needs--creates feedback to the patient regarding his/her value to this environmental system. The patient uses this feedback to determine the efficacy of further participation.

The literature has suggested that patient satisfaction is positively linked to compliance with treatment (Banta, 1992; Ley, 1988; Spiegel & Blackhaut, 1980; Steiber & Krowinski). Ley suggests that the concept of compliance itself has an authoritarian flavor. Rather than seek compliance, MOHO seeks to engage the consumer or patient on the volitional level, supporting the individual's sense of

personal causation. Perceived self-efficacy has been linked to successful performance and " . . . thus it is important for therapists to enable clients to articulate their needs and have a real voice in the therapeutic process" (Gage & Polatajko, 1994, p.460). The volitional subsystem is the most important of the subsystems in enhancing or impeding adaptive occupational behavior (Kielhofner, 1985).

The patient's interaction with the rehabilitation environment will or will not promote a positive response depending on how the experience is processed by the patient. The experience is dependent on: compatibility of the staff's and patient's values, consistency with role expectations for staff and patient, positive regard for the patient by staff, and promotion of the patient's own interests (Kielhofner & Burke, 1980). The aspects of care delineated on the questionnaire are components of the environment that may encourage or constrain the patient. The components of the rehabilitation system reflect the values of the system. The importance of the patient to the system must be evident within the patient's experience of the rehabilitation environment.

CHAPTER 3

Design and Methodology

Introduction

The design and methodology section will begin with a critique of unpublished questionnaires used in the creation of the pilot instrument, followed by a description of the pilot instrument. The researcher will discuss scoring, content validity, criteria for inclusion of participants in the pilot study, administration considerations, type of setting, and limitations of the survey.

Critique of Questionnaires

Unpublished questionnaires were solicited from eight local facilities with rehabilitation services. Of the eight local rehabilitation facilities contacted, two reported not using any patient satisfaction measurement instruments, five sent copies of their questionnaires, and one did not respond. Two questionnaires were also received from a rehabilitation facility in the midwest. This last site was the only facility to include information regarding the creation of the instruments.

The researcher examined the questionnaires for applicability to SFGH's needs and for adherence to survey technique guidelines discovered during a review of the literature. The following critique discusses the results of that examination. (For a summary of critique, see Table 1, page 29.)

Appearance and Readability

Survey instruments should look both professional and easy to read (Sudman & Bradburn, 1982). The Mills-Peninsula rehabilitation questionnaire (MPRQ), (1994), printed on heavyweight paper in a brochure format easily meets the goal of professionalism, but the print in blue ink, although attractive, may be too pale for individuals with diminished vision to read easily. The Community Hospital of Monterey questionnaire (CHMQ), (1994), in comparison, appears hastily constructed. The CHMQ contains spelling errors, undefined medical abbreviations, awkward sentence construction and misaligned answer options. In constructing a survey, one cannot assume that professional abbreviations, even as simple as using "pt" for patient, are known by the consumer (Steiber & Krowinski, 1990). A questionnaire not important enough to the researcher to correct may not appear important enough to the consumer to complete (Sudman & Bradburn). Organization, alignment, and spacing of questions and answer options contribute to readability. According to Sudman and Bradburn, the appearance of being "easy to do" has more influence on willingness to respond than the length of the instrument.

Introductions and Instructions

Introductory remarks serve to motivate and guide the respondent in completing the questionnaire. The questionnaire from Davies Medical Center (DMCQ), (1994) has neither introduction nor instructions at the beginning of the form. An explanation of the

purpose of the survey is included at the end along with a statement of appreciation. Even an instrument that appears simple should include instructions. The CHMQ begins with directions for an answer format that uses numerals. After the sixth question, the numerals disappear without further directions regarding how the respondent should answer. The researcher cannot assume that the respondent will know how to answer. In diverse urban populations, there may be people who have no experience with questionnaire formats. Wolff (1994) cites poor response rates as a possible cause of bias and one of the drawbacks of using survey methodology, therefore, every attempt must be made to motivate potential respondents.

Double-barreled Questions

Although excessive length has been cited as one of the most frequent problems with questionnaires, attempts to shorten the instrument by combining questions can lead to other problems (Steiber & Krowinski, 1990). Many of the questionnaires contain "double-barreled" questions, a term used to describe questions that ask for a single response to more than one issue (Steiber & Krowinski; Sudman & Bradburn, 1982). For example, in the CHMQ, the researchers ask if the reception was courteous and efficient. Such questions create dilemmas for both respondent and researcher. If the reception were courteous and inefficient or rude and efficient, the respondent could not give a single true answer. The Sequoia Rehabilitation Unit questionnaire (SRUQ), (1994) contains pairs of adjectives such as "accessible and approachable" and "helpful and

informative." The former pair addresses the issues of availability and interpersonal skill while the latter pair addresses the issues of efficacy and communication. In the DMCQ, one question asks whether staff were "professional, knowledgeable, and supportive." Once again, the elements that the patient is asked to judge may not occur together. The question combines aspects of competency and interpersonal behavior, but cannot truly assess either.

Structure and Response Agreement

Many questions on the CHMQ have a sentence structure that conveys a statement rather than a question and are recognizable as questions only because of the question mark at the end. It is possible that this structure may influence the respondent as the structure implies the answer expected, for example, "your home program was legible and understandable?" If the answer options were agree/disagree, the statement form would be more appropriate. With the available yes/no answer option, the question would be better worded, "was your home program understandable." "Because of the prevalence of non attitudes, question wording can have a substantial effect on survey results. A 10-20% difference [in response data] can often be attributed to seemingly trivial changes in wording" (Weisberg & Bowen, 1977, p. 87).

Response Set

Some respondents will complete a questionnaire by mechanically marking the same answer for all questions. This behavior has been labeled "acquiescent response" by Spiegel and

Blackhaut (1980) and "response set" by Weisberg and Bowen (1977). Both authors recommend the use of questions stated alternately in a positive or a negative format to neutralize the effect of the response set on data. Not one of the survey instruments received has questions stated in a negative format. Response set seems to be more of a factor with lower education and lower income respondents (Spiegel & Blackhaut, 1980, p.181).

Language Used in Questionnaires

Everett and Boydell (1994) recommend using patients' own language to construct questions. Both the Rehabilitation Institute of Chicago inpatient questionnaire (RICIQ), (1992) and outpatient questionnaire (RICOQ), (1992) were developed "based on patients' perspectives of what was important to them during their stay" (K. Cichowski, personal communication, January 9, 1995). The RICIQ reflects patient input in the wording and content of questions. For example, one item asks how well the staff listened, "when you just needed to talk to someone." Another asks whether the staff was supportive "without pushing too hard." Patient input for the outpatient questionnaire is not as evident and both of the above questions were eliminated from the outpatient questionnaire.

Response Categories

Two level scales. Steiber and Krowinski (1990) maintain that two level response scales such as agree/disagree and yes/no, lose a significant amount of information and make comparisons over time difficult. Yes or no questions, while obviously a good format for fact-

finding questions, are considered less sensitive for discerning opinions and attitude (Steiber & Krowinski; Sudman & Bradburn, 1982). The SRUQ begins with nine questions to be answered yes or no. Out of a total of 45 questions on the MPRQ, 25 questions offer only a yes or no answer option. Questions such as, "did you receive a packet of information about the hospital and its services during this hospital stay?" require only an affirmative or negative response. Most of the other questions would benefit from the increased sensitivity of multi-level response categories. For one MPRQ item, "were family conferences helpful?" a respondent may answer yes in cases where an accurate response might be not sure, a response that may indicate the need for change. When questioned about a therapist's professionalism, on the CHMQ, a patient who would have responded fair, if given a rating scale, might be unwilling to label the therapist unprofessional when forced to answer yes or no.

Respondents on the DMCQ and the SRUQ do not have the answer options of not sure or does not apply. Respondents have no way of indicating that they did not receive services or that they were unsure of the type of services that they did receive. A nonresponse cannot be interpreted by the researcher and a forced response may not represent the patient's uncertainty (Steiber & Krowinski, 1990; Sudman & Bradburn, 1982). Data indicating patients do not know which services they have received may point to a need for improved communication. Data from a survey conducted at Lucile Packard Children's Hospital at Stanford in 1994 regarding pediatric services

indicated that many parents whose children had been treated by an occupational therapist responded that their children had not received occupational therapy (G. Grove, research assistant, personal communication, November 29, 1994).

Open-ended questions. All of the six rehabilitation questionnaires have open-ended questions or room for patients' comments. The rehabilitation questionnaire from Santa Clara Valley Medical Center (VMRQ), (1994) has only one open-ended question which is on the first page of the form, although it asks for comments after many of its closed-ended questions. Sudman and Bradburn (1982) warn against placing questions that require long written responses at the beginning of a questionnaire because written answers require more work than closed-ended questions. Another reason for putting open-ended questions at the end is that the information the respondent writes may be included in a question on another page. The open-ended question at the end can be used to add new information. The SRUQ has only a very small space for comments at the end of the form which may be insufficient for including concerns of the patient not covered on the questionnaire. Respondents generally do not write more than what appears to be expected (Sudman & Bradburn).

Closed-ended questions. Closed-ended questions must offer balanced response categories. For example, the response categories for most of the questions on VMRQ are: excellent, good, adequate, poor and N/A. The answers have a built-in response bias. If

adequate is considered to be a neutral response then the positive response categories outnumber the negative two to one. Adequate may also be considered a positive response. The answer categories should have equal weight for positive and negative responses, especially considering the tendency toward positively skewed results (Aday et al., 1980; Munro et al., 1994; Spiegel & Blackhaut, 1980; Steiber & Krowinski, 1990; Sudman & Bradburn, 1982; Wolff, 1994).

Content

The CHMQ includes questions in many of the areas deemed important in the literature such as communication, access, availability, interpersonal and physical environment (Bendtsen & Bjurulf, 1993; Steiber & Krowinski, 1990). Not included are questions pertaining to patient perceptions of competency or efficacy. The SRUQ, although quite short, manages to include questions pertaining to communication, perception of efficacy, patient input, physical environment and physician interpersonal skill. As an inpatient form, it does not address questions regarding problems with registration, clerical staff, access to facility, or billing, which have been shown to be issues of concern to outpatients (Aday et al., 1980). The SRUQ also does not address the issues of privacy or interpersonal skills of staff other than the physician.

The DMCQ asks the respondent to judge whether the staff worked together as a team. The patient may not know how to judge the teamwork of the staff but could respond to questions about specific behaviors that indicate teamwork such as lack of repetitious

questioning, coordination of therapy sessions, and consistency of training by therapists from different disciplines.

The MPRQ covers a wide range of disciplines and services including physician, nursing, housekeeping, transport, meals, occupational therapy, physical therapy, speech pathology, neuropsychology, social work, business and billing. The number of questions that relate directly to the services of occupational therapy, physical therapy, or speech therapy, however, is quite small. One question asks about communication, one about scheduling, two about the rehabilitation department, and one about equipment and instructions for self-feeding.

The VMRQ asks the patient to rate each discipline on courtesy and concern, responsiveness to the patient's needs, and effect on the ability to care for self. Questions about communication were asked regarding physicians, nurses, social workers, respiratory and urology technicians but not regarding physical therapists, occupational therapists, or speech therapists. The questionnaire did not address patient involvement in setting goals nor patient perceptions of competency.

Issues of concern to outpatients are included in the RICOQ such as scheduling, registration, appointment delays, transportation and parking (Aday et al., 1980). There are only three questions that directly relate to the services of therapists: one concerning communication, one concerning skill, and one concerning friendliness. The communication question combines therapist response to

questions with therapist explanation of treatment, issues which were treated separately in the inpatient version. Questions about therapists listening, pushing too hard, or including patient and family in decision-making have not been included in the outpatient form even though the issues would arise in outpatient treatment as well as inpatient.

Only one of the survey instruments received, the RICOQ, was specifically designed to measure satisfaction with outpatient services. Many of the questions on that form do not apply to the needs of SFGH. The RICOQ also does not include questions regarding patient involvement in goal setting, perceptions of efficacy of treatment, or an adequate number of questions relating to the services of occupational therapy, physical therapy, and speech therapy.

Positive Skew

The first substantive question on the MPRQ asks the respondent to write the most positive thing remembered from the hospital stay. Although positive comments are an important part of an evaluation, the request for praise would be best placed at the end of the form both because it is an open-ended question and because it sets a tone asking for positive responses in a situation where response data has been shown to be positively skewed (Aday, et al., 1980; Munro et al., 1994; Spiegel & Blackhaut, 1980; Steiber & Krowinski, 1990; Sudman & Bradburn, 1982). This question is followed by two lines for the written response. The next question, which asks for suggestions for improvement is followed by only one

line for the written response. More space for written comments is provided after other questions later in the form, but the initial visual impression encourages positive over negative comments. Other factors contributing to positively skewed data include biased response categories and a preponderance of positively worded questions.

Anonymity

Both the DMCQ and the VMQR request identifying information from the respondent. The request for the patient's name may curtail the honesty of the responses (Wentland & Smith, 1993). When a questionnaire is administered by mail, as is the VMQR (M. Damon, Director of Rehabilitation, personal communication, December 14, 1994), the return envelope can be coded allowing the respondents to be tracked while the instrument itself remains anonymous (Steiber & Krowinski, 1990). Although mailed questionnaires are generally preferred to on-site administration, the method of administration has less influence on response veracity than the degree of anonymity (Sudman & Bradburn, 1982; Wentland & Smith). Sudman and Bradburn also suggest placing demographic questions at the end of the survey instrument.

Table 1.
Review of Questionnaires

Variables	<u>Questionnaires</u>		
	MPRQ	CHMQ	DMCQ
Problems with appearance	Pale ink	Sentence structure, misalignment	Extensive use of italics
Introductions and instructions	Format change with no instructions	Format change with no instructions	No
Double-barrel questions	Yes	Yes	Yes
Response agreement	Yes	No	Yes
Counters response set	No	No	No
Response structure	Over half yes/no	Response options missing	No neutral or N/A
Content	Minor reference to OT, PT, SLP	Missing categories	Missing categories
Correct for positive skew	Positive bias	Positive bias	No
Anonymous	Yes	Yes	No

(table continues)

Table (continued)

Variables	<u>Questionnaires</u>		
	SRUQ	RICIQ/RICOQ	VMRQ
Problems with appearance	Misalignment of responses	N/A, telephone administration	Too many types of questions on first page
Introductions and instructions	Limited	Excellent	Adequate
Double-barrel questions	Yes	One	Yes
Response agreement	Yes	Yes	yes
Counters response set	No	No	No
Response structure	Mostly yes/no, no neutral or N/A	Varied, no neutral	Begins with open-ended, biased options
Content	Missing categories	Issues missing from outpatient version	Missing categories
Correct for positive skew	No	No	No
Anonymous	Yes	No	No

Summary

None of the survey instruments received from rehabilitation departments were suitable for use without adaptation due to construction flaws, content deficits, and/or incompatible target populations. The instruments provided excellent source material for an adapted instrument tailored to the structure and services of SFGH.

Instrument Design

The pilot survey instrument was created by adapting questions from the rehabilitation department survey instruments previously discussed, and by using aspects of care discussed in the literature review. The pilot questionnaire consisted of four sections (see appendix A). The first section was designed to measure patients' degree of agreement with elements of care that have been linked to patient satisfaction (Aday et al., 1980; Meterko et al., 1990; Spiegel & Blackhaut, 1980). This section contained 25 quantitative questions. The second section of the questionnaire contained qualitative questions to allow for inclusion of features of service considered salient to patients that may not have been covered in the quantitative section as suggested by Everett and Boydell (1994) and Meterko et al. (1990). The third section asked for demographic information and the fourth section contained 16 questions rating the importance to patients of various aspects of service. Descriptions of each section follow.

Section One: Satisfaction Questions

The first section of the pilot questionnaire contained 25 closed-ended questions that were answered using a Likert scale with the response categories of strongly agree, agree, not sure, disagree, strongly disagree, and does not apply. Questions in this section were stated in both positive and negative format.

Questions were included from the basic service areas of: (1) availability, (2) communication/information, (3) participation, (4) interpersonal, (5) technique, (6) results, (7) physical environment, and (8) access. These aspects of care correspond to those discussed in the literature review with two exceptions (Bendtsen & Bjurulf, 1993; Steiber & Krowinski, 1990). Questions concerning cost and financing were not included as the rehabilitation department does not bill separately from the hospital. Questions regarding continuity of care were considered not salient for outpatients at this site because patients are generally seen by the same therapist throughout outpatient treatment.

Section Two: Qualitative Questions

The second section contained two open-ended questions: one asking what needed to be improved and one asking for comments or stories. Space was also left after each grouping of closed-ended questions in section one for patients to elaborate on the aspect of care in question because it has been found that some respondents who have indicated satisfaction will add written critiques (Ehnfors & Smedby, 1993).

Written comments were categorized according to the type of information they contain. The first category contained general positive comments. The second category focused on positive comments that were specific and related to material mentioned in the instrument. The third category examined complaints and suggestions, again relating to issues raised in the questionnaire. Comments in the fourth category related to services other than those of the rehabilitation department. The fifth category contained statements patients made about themselves. Comments that referred to aspects of care not mentioned in the questionnaire were placed into the sixth category.

The primary purposes of soliciting patient commentary were to gain information regarding additional aspects of care not included in the pilot questionnaire; to improve the language used in the questionnaire; to elucidate causes of dissatisfaction; and to investigate patient suggestions for improvement. These purposes will guide the analysis of the qualitative material.

Section Three: Demographic Information

The introduction to the demographic questions explained that the results would be used to ensure that services provided met the needs of differing groups of patients. Information was solicited regarding age, gender, and ethnic identification. The researcher did not include questions regarding income or educational levels in the interest of keeping the questionnaire as short as possible. In addition, questions regarding income level are considered highly

sensitive to patients (Wentland & Smith, 1993). Questions regarding referral source, reason for referral, and method of transportation were added as part of another research project and while the results will be noted, the data will not be part of the analysis.

Section Four: Importance Questions

In this section, patients were asked to rate elements of care according to their importance to the patient. Patients used a three-point scale with the response categories of very important, somewhat important, and not important. Not all elements of care rated in this section match the elements rated in the first 25 questions. Exact replication was sacrificed in the interest of brevity. Questions in this section were used to analyze the content of the instrument but were not intended for inclusion in the final survey instrument.

Scoring

Scores were calculated after patients completed the questionnaire. The response options were assigned a numerical value from 0 to 5. The more positive the response, the higher the numerical value assigned. Consequently, for positively worded statements, the answers ranked from 5 for strongly agree to 1 for strongly disagree. For negatively worded questions, the reverse ranking applied, from 5 for strongly disagree to 1 for strongly agree. A value of 0 indicated a response of does not apply in all instances. Questionnaires containing blank responses were excluded from the computation of combined scores. Questionnaires containing scores of 0 were included in the computation of combined scores because of

the small number of complete questionnaires with no responses of does not apply. Questions which received a 0 or were left blank were eliminated from data analysis of individual questions. Because these questions were eliminated, response numbers varied for each question and each grouping of questions.

Scoring for the fourth section was from 3, for the response very important, to 1 for not important. These numbers are in the reverse order of those appearing on the pilot questionnaire. They were reversed to make the order consistent with that used in the first section (highest numerical value for highest satisfaction or highest importance). Because the questions asked for patient values rather than experience, the researcher did not include a response option of does not apply.

Content Validity

Prior to administration, the pilot instrument was analyzed for face validity by asking four students and three outpatients to read the questions and to give feedback regarding unclear, objectionable, or redundant material. The researcher also solicited comments on length and ease of reading (Hill et al., 1991). Patients who critiqued the questionnaire were not asked to be respondents.

The four students had few suggestions for improvement. Two students questioned the use of the word "skilled" in reference to the therapist in the segment focusing on technique, stating that the meaning of the word was not clear. The dictionary definition of the word as demonstrating one has "the ability, coming from one's

knowledge, practice, aptitude, etc., to do something well," fit the intent of the question. Skilled also appeared to be the simplest word choice when compared to its synonyms (Webster's Encyclopedic Unabridged Dictionary, 1989, p. 1335). In addition, none of the patient-readers expressed difficulty with the meaning of skilled. The word was retained.

Question 7, regarding repetition of information to service providers, was questioned by two students as being confusing for patients. However, none of the three patient-readers had difficulty with the concept, including one patient whose first language was Spanish. This patient was able to summarize the purpose saying, "It's about whether your therapist and doctor have good communication."

Question 26 was re-worded at the suggestion of one patient to read "therapy services" instead of "therapies." No other word, phrase, or question was found to be objectionable or confusing by either the student- or patient-readers.

One patient-reader commented that the instrument was too long and that it offered too many choices. Another patient-reader countered that the questionnaire was not too long "if people were interested." None of the other readers thought the questionnaire was too long. The researcher decided not to shorten the pilot instrument but acknowledged that the final version of the instrument should be shorter.

Inclusion Criteria

All adult patients who were scheduled for treatment at the outpatient rehabilitation department on the days during which the survey was conducted and who had been to three or more treatment sessions were eligible for inclusion. Length of treatment varies considerably and discharge dates may be extended (M. Han, Department of Rehabilitation Coordinator, personal communication, February 23, 1995). It is also common for outpatients to skip scheduled therapy sessions. In one study, the rate of "no-shows" was 30% for return patients and 50% for new patient appointments (Parker & Kroboth, 1991, p. 431). Surveying after three treatment sessions was chosen to allow time for patients to experience results of the intervention without excluding patients with brief treatment. The times for administration were chosen to accommodate the schedule of the researcher. The sample was a sample of convenience.

Administration

For the pilot study, questionnaires were handed out and collected by the researcher within one visit. Respondents were asked not to sign the questionnaire and to place it in an envelope before returning it to the researcher. Respondents were informed in writing and verbally regarding the purpose of the survey. Respondents were also informed that individual questionnaires would not be shown to the staff or therapists, who would be shown final results only, in order to provide assurance of confidentiality which has been shown to affect response rate (Parker & Kroboth, 1991). Patients were

offered the use of a private office in which to complete the questionnaire. Patients were also offered candy and told they could keep the pen used to complete the questionnaire. By offering these rewards the researcher hoped to maximize participation and to counter resistance provoked by the length of the pilot instrument. Administration procedures for the revised survey instrument will be designed by the rehabilitation department at SFGH. The revised instrument will be self-administered and will eventually be offered in multiple languages.

Setting

According to the coordinator of the outpatient rehabilitation department at SFGH, the population served has the following characteristics (M. Han, personal communication, November, 1994):

- often does not have family support
- consists primarily of individuals for whom MediCal provides financial coverage or who are medically indigent (45%-55% and 15%, respectively).
- tends to be younger than those in private rehabilitation settings (average age is approximately 45 years old)
- come from ethnically diverse backgrounds.

The majority of patients are referred to the rehabilitation department primarily from clinics within the hospital. Other referrals originate in clinics at locations throughout the city. Patients must have a physician's order and be registered with the hospital to be given an appointment with a rehabilitation provider. The

rehabilitation department serves both the inpatient and the outpatient population but the location for service provision is separate for the two populations. The majority of outpatient occupational therapy referrals are for hand therapy. According to Dr. Han, the majority of outpatients are able to perform basic and complex self-care tasks (M. Han, personal communication, February, 17, 1995).

Limitations

Method of Administration

The final survey instrument is intended to be given to patients to complete on site. This method of administration has several drawbacks: the patient may not trust the anonymity of the survey process and not respond with complete candor; the patient may have other time commitments and not devote sufficient time and attention to the survey to answer it accurately, or the patient may attempt to complete the questionnaire while waiting for treatment and be interrupted (Parker & Kroboth, 1991; Steiber & Krowinski, 1990). This method of administration has been chosen, in spite of the drawbacks, due to budget and personnel constraints, and as a method to assure return of completed questionnaires.

Language Considerations

The survey was written in English. Because a portion of the patients do not speak English or may be illiterate, an option to have the questionnaire read aloud or to have adult family members translate for the respondent was offered. Questionnaires

administered in either way were marked as an interview or a translation. Even though the quality of translation and the influence of an interviewer cannot be determined for this study, the value of including the responses of these patients outweighed objections to the added variables. Analysis of the response data will acknowledge the ambiguity raised by these variables.

CHAPTER 4

Data and Results

Introduction

Discussion of the results of the survey will begin with information concerning reliability, format bias, response rate, administration method, participant characteristics, services received and service rating. Discussion of satisfaction data follows the research questions presented earlier: (1) To what extent are patients satisfied with outpatient rehabilitation services? (2) For what aspects of care do these patients report relatively less satisfaction? (3) Are the aspects of care measured by this instrument important to the patient? (4) What aspects of care important to patient satisfaction need to be added to the survey instrument? (5) What aspects of care that are relatively unimportant to the patient need to be deleted from the survey instrument? A review of written comments will follow.

General Data

Reliability

The internal consistency for the quantitative section, questions 1-25, was tested using Cronbach's alpha. The reliability coefficient was .81. The face validity was discussed earlier in the methodology section. The instrument was found to be both valid and reliable.

Response Rate

The survey instrument was administered to patients at the SFGH outpatient clinic over a period of 11 days in May and June of 1995. The total number of individuals who had scheduled appointments during those 11 days numbered 269. Of the 269 patients, 88 had fewer than three visits and 5 were minors leaving a pool of 176 individuals who met the criteria for inclusion in the pilot study.

Not all qualifying patients were included in the pilot study for various reasons. The researcher approached patients while they waited in the waiting rooms. Because there were two waiting rooms--one for patients receiving occupational therapy and one for patients receiving physical therapy--the researcher was not able to approach all patients who had appointments at the same time. During interview administration with one individual, the researcher was unavailable to solicit participation of other patients. Some patients arrived late and went immediately to therapy leaving no opportunity for participation requests.

The researcher approached 100 patients or 56.8% of the available patients. Of those approached, 8 refused; 7 took the form home and did not return it; and 28 did not speak English or have a translator available at that time. Of the 58 survey instruments returned by respondents, 5 surveys were discarded for the following reasons: one respondent was underage; one respondent had aphasia and was unable to clearly indicate levels of agreement; 3 instruments

were over 50% incomplete. None of the remaining 53 questionnaires had more than 3 unanswered questions for the quantitative questions 1-25 and 35-50. The 53 questionnaires represent 19.7% of the total outpatient population scheduled for appointments during the 11 days of this study and 30.1% of the outpatients who met the criteria for inclusion in this study.

Administration

Only one questionnaire was marked as a translation. Because this questionnaire was taken home to be translated by family members, the characteristics of the translator(s) are not known. Of the remaining 52 questionnaires, 41 were self-administered, and 11 were administered verbally by the researcher. Results were not analyzed by type of administration.

Respondent Characteristics

Respondents were 63.5% male and 36.5% female (N=52). The ages ranged between 21 and 71 with 72.5% between the ages of 21 and 46 (N=51). The median age was 41. Patients (N=53) classified themselves primarily as Caucasian (43.4%), African-American (30.2%), and Latino (17%). Only one respondent identified as Asian/Pacific Islander and one as Native American (1.9% each) with 5.6% reporting to be "Other". Most patients arrived at the facility by bus or transport service (78.8%) with 17.3% traveling by car. Over half of all respondents were referred by the Ortho Clinic. The remainder were referred with relatively equal distribution by other clinics in SFGH with 8.2% referred from an external clinic.

Services Received

Outpatients who received only occupational therapy numbered 18 (33.9%) and those who received only physical therapy numbered 33 (62.9%). One patient (1.9%) received both therapies. One questionnaire had no marking for type of therapy received. None of the questionnaires included for analysis in this pilot study were completed by respondents receiving speech therapy. The researcher approached 3 of the 6 individuals scheduled for speech therapy during the 11 days the researcher was on site. Of those approached, 2 refused. One patient agreed to participate in the survey but the questionnaire was unusable because the respondent was unable to clearly indicate differing levels of agreement. One of the six individuals was an infant.

Service Ratings

Question 26 asked respondents to rate the therapy services from excellent to poor with corresponding scores of 5-1. Respondents had the option to answer did not receive (a score of 0). Only scores 5-1 were analyzed. Occupational therapy received a score of 4 or better from 92.9% of respondents (N=28), physical therapy received 86.8% positive ratings (N=38), and speech therapy received 100% (N=5). For all of the above therapy services, the number of scores exceeded the number of respondents who received that service.

Question Format Bias

During analysis of scores for questions, the researcher noted what appeared to be a tendency for the positively formatted

questions to have a higher percentage of positive responses than the negatively formatted questions: The 8 highest scoring questions had positive formats while the 11 lowest scoring questions had negative formats. When the researcher analyzed the correlation between format and score, the resulting correlation coefficient was 0.40, with 95% confidence limits between 0.11 and 0.62. This level of correlation would suggest an influence related to format, but not strong enough to invalidate the results.

Satisfaction Data

Review of Scoring

As previously stated, the researcher created questions 1-25 in both positive and negative formats. The response options were assigned a numerical value from 0 to 5. The more positive the response, the higher the numerical value assigned. Consequently, for positively worded statements, the answers ranked from 5 for strongly agree to 1 for strongly disagree. For negatively worded questions, the reverse ranking applied, from 5 for strongly disagree to 1 for strongly agree. A value of 0 indicated a response of does not apply in all instances.

Satisfaction in General

To answer the first research question, "to what extent are patients satisfied with outpatient rehabilitation services," the researcher first examined combined scores for questions 1-25. Because all 25 questions were used, any questionnaire with blank responses for these questions was excluded from the total. The

remaining complete questionnaires numbered 44. The highest possible score for this section was 125 or a rank of 5 for all 25 questions. The lowest possible score was 25 or a rank of 1 for all 25 questions. Actual combined scores ranged from a low of 65 to a high of 125.

The mean for the combined scores equaled 102.48 with a standard deviation of 12.66. The median was slightly higher at 102.50. The mean score for a questionnaire on which all 25 questions had received a rank of 4 would be 120. A total of 56.8% of respondents had a combined score equal to or greater than 120. This figure is less than the 80% satisfaction rate found by Wolff (1994) to be common for satisfaction surveys. However, the 25th percentile score equaled 95.5 which equals the score for a questionnaire in which 80% of all questions were given a rank of 4.

Satisfaction with Areas of Care

Scores for questions in each area of care were combined. The medians, means, and percent of patients responding with a rating of 4 or above were computed for each area of care. The lowest perfect positive (LPP) score refers to a situation where all responses were 4. For example, if a section had 4 questions the LPP would then be 16. Medians for all areas of care except that of results were at or above the LPP. The means for two areas of care fell below the LPP mean: the area of results and the area of communication/information. The highest positive response percentages were for the areas of interpersonal (79.2%), access/physical environment (74.5%),

participation (73.1%) and availability (71.2%). The difference between the mean and the LPP for each area of care was smaller than the standard deviation for each area of care. (See Table 2.)

To make comparison easier, the mean for an individual question was computed for each area of care (see Table 3.). Means for an individual question in each area of care were all above 4 with one exception, the area of results. However, the difference between the mean and a score of 4 was less than the standard deviation. The difference between the highest mean and the lowest mean was also less than the smallest standard deviation for any area.

Table 2.

Comparison of Results of Combined Scores for Aspects of Care.

Aspect of care	% Pos	<u>Mdn</u>	<u>M</u>	<u>SD</u>	LPP
Availability ^b	71.2	17.00	16.23	3.36	16
Communication/information ^d	60.0	21.00	19.92	4.15	20
Participation ^b	73.1	13.50	12.64	2.36	12
Interpersonal ^a	79.2	13.00	13.04	1.98	12
Technique ^a	67.9	13.00	12.55	2.37	12
Results ^d	50.0	11.50	11.10	3.60	12
Access/environment ^c	74.5	16.00	16.43	2.71	16

Note. % Pos = percentage of respondents whose ratings were all 4 or better, LPP = the score achieved if each question in the category were rated 4.

^aN=53. ^bN=52. ^cN=51. ^dN=50.

Table 3.

Comparison of Means for an Individual Question by Aspect of Care.

Aspect of care	<u>M</u>	<u>SD</u>
Availability ^b	4.15	0.92
Communication/information ^d	4.02	0.90
Participation ^b	4.27	0.87
Interpersonal ^a	4.32	0.75
Technique ^a	4.25	0.83
Results ^d	3.70	1.18
Access/Environment ^c	4.22	0.70

^aN=53. ^bN=52. ^cN=51. ^dN=50.

Satisfaction Levels for Individual Questions

No median for any individual question fell below 4. For the following question topics, 90% or more of respondents assigned a score of 4 or better: friendliness of reception, scheduling consideration, answers to questions, comprehension of treatment goals, collaboration on goals, therapist pressure, respect for privacy, concern for patient, respectful behavior, confidence in therapist, ease of locating department, pleasantness of environment and cleanliness. For these questions, the means were between 4.58 and 4.28. For the following questions, 80-89.9% of respondents rated the topic 4 or better: treatment explanations, home program information, self-help knowledge, respect, skill of therapist, and increased function. The means for these questions ranged from 4.38 to 4.06. (See Table 4.)

The number of questions for which at least 80% of respondents answered with a score of 4 or higher numbered 18 and are ranked in descending order of positive percentage rate in Table 5.

Table 4.

Comparison of Results for Individual Questions by Aspect of Care

<u>Question topic</u>	<u>N</u>	<u>% Pos</u>	<u>M</u>	<u>SD</u>
Availability				
1. Reception friendliness ^a	51	92.2	4.53	0.78
2. Registration time ^c	51	76.5	3.84	1.19
3. Schedule consideration ^a	52	96.2	4.46	0.85
4. 1st appt. complications ^c	50	78.0	3.80	1.33
Communication/Information				
5. Answers to questions ^a	52	92.3	4.58	0.89
6. Treatment explanations ^c	50	82.0	4.06	1.24
7. Repetition of info ^c	50	58.0	3.44	1.28
8. Goal comprehension ^a	53	90.6	4.45	0.82
9. Home program info ^c	50	84.0	4.06	1.15
Participation				
10. Collaboration on goals ^a	51	90.2	4.37	0.82
11. Self help ^a	53	86.7	4.32	0.87
12. Therapist pressure ^a	50	90.0	4.28	1.05

(table continues)

Table 4. (continued)

Question topic	<u>N</u>	% Pos	<u>M</u>	<u>SD</u>
Interpersonal				
13. Privacy ^a	50	98.0	4.58	0.61
14. Concern for patient ^a	53	90.8	4.49	0.72
15. Respect ^a	51	90.2	4.39	1.10
Technique				
16. Skilled therapist ^a	53	86.8	4.38	0.84
17. Confidence in therapist ^a	53	92.5	4.49	0.78
18. Completeness of treatment ^c	52	57.8	3.75	1.22
Results				
19. Expectations met ^c	50	72.0	3.86	1.18
20. Increased function ^a	50	84.0	4.28	0.95
21. Home program success ^c	43	74.0	3.86	1.27
Access/Physical Environment				
22. Ease of locating dept. ^a	51	90.2	4.29	0.97
23. Signage ^c	52	71.2	3.58	1.29
24. Cleanliness ^c	52	94.3	4.40	0.66
25. Pleasantness ^c	52	90.4	4.27	0.87

Note. % Pos= the percentage of respondents giving a score of 4 or better. Appt. = appointment and dept. = department. N figures vary because both blank and does not apply responses were excluded.

^aMdn=5.00. ^bMdn=4.50. ^cMdn=4.00.

Table 5.

Rank of Questions Receiving 80% or Greater Positive Response Rate.

Rank	Question number and topic	% Pos
1	Q13. Privacy	98.0
2	Q3. Schedule consideration	96.2
3	Q24. Cleanliness	94.3
4	Q17. Confidence in therapist	92.5
5	Q5. Answers to questions	92.3
6	Q1. Reception friendliness	92.2
7	Q14. Concern for patient	90.8
8	Q8. Goal comprehension	90.6
9	Q25. Pleasant environment	90.4
10	Q10. Collaboration on goals	90.2
	Q15. Respect	
	Q22. Ease of locating department	
11	Q12. Therapist pressure	90.0
12	Q16. Skilled therapist	86.8
13	Q11. Self-help	86.7
14	Q9. Home program information	84.0
	Q20. Increased function	
15	Q6. Treatment explanations	82.0

Note. % Pos= the percentage of respondents giving a score of 4 or better.

Relative Dissatisfaction

To answer the second research question, "for which aspects of care do respondents show relatively less satisfaction," the researcher looked at individual questions only. The questions were examined in two ways. The first method ranked questions to which fewer than 80% of patients responded with a positive score (4 or better). The second method involved ranking questions by the percentage of respondents who assigned each question a score of 2 or 1. Only questions for which this percentage exceeded 10 were included in the ranking.

When questions were ranked according to the percent of positive responses from the lowest percent up to but not including 80%, the researcher found 7 questions. The question with the lowest percentage of positive responses (57.8%) concerned completeness of treatment. Number 2 on this list with 58.0% positive responses was question 7 regarding repetition of information. The rest of the questions had positive response rates between 70-79%. (See Table 6.)

Using the second method, the researcher found the same 7 questions, in a slightly different order, and 2 additional questions. The two highest percentages of negative responses fell to questions 7 (repetition of information) and 23 (signage adequacy) with 32.0% and 26.9% respectively. Four questions had between 17-20% negative responses regarding first appointment complications, satisfaction of expectations, treatment explanations, and completeness of treatment. For 15.6% of respondents, the registration

process took too long. The two questions concerned with home programs received 14-16.3% negative responses. (See Table 7.)

Table 6.

Rank of Questions by Lowest Percentage of Respondents Assigning Scores of 4 or 5 (N=53).

Rank	Question topic	% Pos
1	Repetition of information	58.0
2	Completeness of treatment	57.7
3	Signage	71.2
4	Expectations met	72.0
5	Home program success	74.0
6	Registration time	76.5
7	1st appt. complicated	78.0

Note. % Pos = percent of respondents assigning score of 4 or 5.

Table 7.

Rank in Descending Order of Questions by Percentage of Respondents Assigning Scores of 2 or 1 (N=53).

Rank	Table 5 rank	Question topic	% Neg (n)	
1	1	Repetition of info	32.0	(16)
2	3	Signage	26.9	(14)
3	7	1st appt. complicated	20.0	(10)
4	4	Expectations met	18.0	(9)
	N/A	Treatment explained	18.0	(9)
5	2	Treatment complete	17.3	(9)
6	5	Home program success	16.3	(7)*
7	6	Registration time	15.6	(8)
8	N/A	Home program instructions	14.0	(8)

Note. % Neg = percent of respondents assigning score of 2 or 1.

* Discrepancy due to high number of N/A responses.

Satisfaction by Respondent Characteristics

General satisfaction scores were compared for the characteristics of age, gender and ethnic identification using ANOVA and Kruskal-Wallis one way analysis of variance. Satisfaction by age group was determined by sorting respondents into 5 groups by decade as follows: 21-30, 31-40, 41-50, 51-60, and 61 and above. Comparison of general satisfaction scores by age, gender or ethnic identification showed no significant differences for either parametric or nonparametric analysis. (See Tables 8 and 9.)

Table 8.

Results of ANOVA of General Satisfaction Scores by Respondent Characteristics

Variation	<u>SS</u>	<u>df</u>	<u>F</u>	<u>t</u>
Gender ^{a**}				
Between	155.97	1		0.986
Within	6733.01	42		
Total	6888.98	43		
Age Group ^{a**}				
Between	349.35	4	0.521	
Within	6539.62	39		
Total	6888.98	43		
Ethnic Identification ^{b**}				
Between	202.39	5	0.230	
Within	6686.59	38		
Total	6888.98	43		

^an=44. ^bn=40.

^{**}p>0.1

Table 9.

Results of Kruskal-Wallis One Way Analysis of Variance of Total Score Versus Respondent Characteristic.

	<u>Respondent characteristic**</u>		
	<u>Age</u>	<u>Gender</u>	<u>Ethnicity</u>
<u>N</u>	51	52	53
<u>H</u>	3.536	2.192	1.738
<u>df</u>	4	1	5
<u>p*</u>	NS	NS	NS

Note. H is equivalent to Chi square.

*NS = Not significant.

Satisfaction scores for individual questions were compared for the characteristics of age, gender and ethnic identification again using Kruskal-Wallis one way analysis of variance. For this comparison only three ethnic groups, African American/Black, Latino/Hispanic, and Caucasian/European, were included. Native American and Asian American/Pacific Islander groups were omitted because each group contained only one respondent and any differences noted could be ascribed to individual rather than group preferences. No significant ($p < .05$) differences in scores for male and female respondents appeared. Only one question produced a difference ($p < .05$) according to age group--question 25 regarding physical pleasantness of the treatment area. Group 5 ($n=6$), ages 61

and over, had the highest mean score, 5.00, and group 4 ($n=8$), ages 51-60, showed the lowest mean, 3.38.

For the three ethnic groups considered, non-parametric measures revealed 2 questions with significant differences ($p<.05$) in scores between the groups: question 6 regarding treatment explanations and question 15 regarding respectful behavior. For both questions, respondents identifying as Caucasian/European ($n=23$) had the highest mean scores, 4.35 and 4.61 for questions 6 and 15 respectively. Mean scores for those identified as Latino/Hispanic ($n=9$) were 3.89 for question 6 and 4.00 for question 15. Respondents who identified themselves as African American/Black ($n=16$) had mean scores of 3.38 for question 6 and 3.63 for question 15.

Importance Data

Questions 35-50 were included to answer the last three research questions regarding which aspects of care measured by this instrument were important to the patient; which important aspects of care needed to be added to the survey instrument; and which relatively unimportant aspects of care needed to be deleted. Questions 35-50 asked respondents to rate aspects of care as very important, somewhat important, or not important. For analysis, the three responses were assigned the numerical values of three, two, and one, respectively. These numbers are in the reverse order of those appearing on the pilot questionnaire. They were reversed to make the order consistent with that used in the first section (highest numerical value for highest satisfaction or highest importance). Of

the 16 questions in this section, 11 corresponded to topics rated for satisfaction in the first section of the questionnaire, and 5 questions contained new elements of care.

Questions were ranked according to the percentage of respondents assigning the topic a rating of very important. For 5 questions, over 90% of respondents rated the element of care as very important. When responses of somewhat important were added, the percentages were between 98-100% for these same 5 questions regarding treatment explanation, skill of therapist, answers to questions, self-help knowledge, and increased function.

Two questions regarding concern for patients and listening to patients both received a very important rating from almost 85% of respondents. For questions concerning friendliness, cleanliness, and punctuality, 71-77% of respondents circled very important. Slightly fewer than two-thirds of respondents rated participation in setting goals, physical comfort, or understanding the differences between types of therapy as very important. When the response options of very important and somewhat important were combined, the response rate for all of the above questions was over 90%.

Three questions received less than 90% for the combined very/somewhat important categories. Questions 46 and 48, which focused on privacy and attractiveness of treatment area, were rated not important by 13.3% and 15.1% respectively. Question 42 regarding the inclusion of family and significant others in treatment

planning received a rating of not important from almost 40% of respondents. (See Table 10.)

Comparison of the means for questions 35-50 resulted in significant differences using Kruskal-Wallis one way analysis of variance ($p < .05$). The mean of each question was compared with the highest mean (2.94) to determine which questions had significantly lower scores for importance. All questions with a mean of 2.76 or less differed significantly from the highest mean score. No question that received a very important rating from fewer than 80% of respondents had a mean greater than 2.76. Questions for which fewer than 80% of respondents answered very important can therefore be considered relatively unimportant to patients surveyed.

Respondents rated the importance of five topics not included in questions rated for satisfaction: listening to patient concerns, inclusion of family/significant others in goal setting, physical comfort during treatment, punctuality of sessions, and understanding the difference between different types of therapy. Only one of the above topics, listening to patient concerns, received more than an 80% response of very important. The issue of punctuality was rated very important by 71.7%. Least important to respondents was the inclusion of family or significant others in goal setting, with only 26.4% of considering the issue very important. Three topics included in both satisfaction and importance ratings were rated very important by less than 75% of respondents: patient collaboration on goal setting, privacy, and attractiveness of treatment area.

Table 10.

Rank of Questions 35-50 in Descending Order of Importance (N=53)

Rank	Question number and topic	% VI	% NI	<u>M</u>	<u>SD</u>
1	Q38. Therapist skilled	94.3	0.0	2.94	0.23
	Q41. Self-help knowledge	94.3	0.0	2.94	0.23
	Q43. Improved function	94.3	0.0	2.94	0.23
2	Q37. Treatment explanation	94.3	1.9	2.93	0.33
3	Q39. Questions answered	90.6	1.9	2.89	0.38
4	Q40. Listens to patient	84.9	0.0	2.85	0.36
5	Q36. Concern for patient	84.9	1.9	2.83	0.43
6	Q47. Friendliness	76.9	3.8	2.74	0.52
	Q49. Cleanliness of area	75.5	0.0	2.76	0.43
7	Q50. Punctuality	71.7	5.7	2.66	0.59
8	Q35. Tx goal collaboration	64.2	9.4	2.55	0.67
9	Q44. Physical comfort at Tx	62.3	7.5	2.55	0.64
10	Q45. Understand difference between OT, PT, SLP	62.3	9.4	2.53	0.67
11	Q46. Privacy	60.4	13.2	2.48	0.72
12	Q48. Pleasantness of area	47.2	15.1	2.32	0.73
13	Q42. Family/significant others involved ^a	26.4	39.6	1.81	0.83

Note. Tx= treatment, % VI= % of very important responses, % NI= % of not important responses.

^aN= 52.

The researcher compared the scores of the 11 questions in the satisfaction section with the scores of their counterparts in the importance section and analyzed the scores for correlational values. Of interest for quality improvement would be topics rated highly for importance that received low satisfaction scores resulting in a negative correlation. Of the questions that received at least 80% responses of very important, no absolute correlational value exceeded .22. When all 11 questions were considered, the correlational coefficients ranged from $-.09$ to $.42$ indicating little correlation between scores for importance and satisfaction.

Qualitative Responses

The researcher included qualitative questions primarily to gain information about aspects of care not included in the pilot instrument, to elucidate reasons for dissatisfaction, to solicit suggestions for improvement, and to improve the language used in the questionnaire. The researcher categorized the written responses according to the type of information presented. Quantity and content of patient comments follows.

Qualitative responses were solicited in three ways. One question asked for possible improvements; one question asked for stories of patient experiences; and at the end of each group of questions in a category of care, the questionnaire asked for comments. Almost two-thirds (33) of the respondents commented in writing, although many of these comments were general and quite short. The number of written responses totaled 79. General

statements or comments related to concerns raised in the questionnaire numbered 56. A total of 16 written comments contained information about the respondent or contained material unrelated to services provided by the rehabilitation department. The remaining written statements contained 5 issues not raised in the pilot questionnaire.

General Positive Comments

Almost a quarter of the written comments fell into a category of generally positive statements containing no specific reference to elements of care. Most of these statements were short, nonspecific, and used adjectives like "fine," "great," "good," "very satisfactory," "wonderful," and "alright." One statement named three therapists along with the adjective "greatest," and one respondent wrote, "proud to be a patient."

Positive Comments on Aspects of Care

Other positive comments referred directly or indirectly to aspects of care specified in the questionnaire but did not add details or information not already included in the instrument. The majority of these comments concerned interpersonal aspects of care and results. Typical phrases classified as interpersonal include: "the people in PT are friendly"; "my therapist is very nice and understanding"; ". . . all the people were pleasant"; and "they were all friendly." Generally positive responses classified as comments on results included: "I like it because it's done me good" and ". . . really helped me to return to regular activities quickly." Several comments

stated that the program or therapist had been "helpful." A few responses repeated, with only slight variation, the content of a particular question, such as "the therapist explain [sic] everything to me," instead of ". . . explained treatment procedures" (question 6). General positive comments regarding technique included , "my therapist is very good," and "I really feel that I am in competent hands."

Most of the positive comments were general in nature although a few specified actions that contributed to a positive experience. Two respondents remarked that staff members had gone out of their way to arrange extra service for the patient. Another noted that the therapist helped the patient "to set and reach goals on a weekly basis." Another patient stated that she had observed "people involved greatly assist each other."

Suggestions and Complaints

In the category of availability, the researcher found two patients who felt they had had to wait too long to get their first appointment--in one case, two weeks and, in the other, one to two months. One patient recounted arriving for therapy early and having to wait over an hour. One comment on scheduling could also be considered an interdepartmental communication concern. The patient reported having a doctor's appointment that was delayed, interfering with a therapy appointment scheduled later.

Regarding communication and information, two respondents asked that therapists (and other health professionals) inform

patients of both the positive and the negative potential outcomes. One comment included a request for statistics regarding recovery, limitations and range of motion. Several complaints fell into the interpersonal category. Two patients called their therapists "a little indifferent." Another referred to the therapist as "a little harsh sometimes," and one wanted "someone more friendly and caring." Regarding completeness of treatment, one patient suggested the use of massage to decrease pain prior to treatment.

Comments on Extra-departmental Services

Two patients complimented their therapists by stating how superior the therapists' explanations were when compared to the doctors' explanations. One respondent asked for a "more patient doctor." Regarding the adequacy of signage, one patient commented that "no departments in the hospital are well marked." Another patient requested that research "focus on other departments for system failures. . . . please survey outpatient satisfaction on night nurses while at SFGH - food distribution, manhandling, inattention, etc. etc."

Self-reflective Statements

In response to question 10 regarding collaboration in setting goals, one patient wrote that ". . . the therapist knows what she's doing so I don't discuss it with her." Another patient stated, "I don't know what it is that I don't know that would be appropriate for goals for therapy." Regarding completeness of treatment, one respondent wrote, "I don't know how much better I could be." Three patients

expanded on the inability to do their home programs because of pain or distractions at home.

New Issues

Three respondents commented on the quantity of therapy received, asking for longer sessions, more frequent sessions or for the rehabilitation department to open on weekends. One respondent reported difficulty with public transportation and suggested SFGH offer transportation services. Two respondents commented on the therapist making a mistake. Two respondents stated that staff "went out of their way" to arrange a referral and one complained that the therapist suggested a referral but "did not follow up." Raising an issue indirectly related to communication, one patient complained that physician specialists do not know about or refer patients to other therapies.

Summary of Results

Results of the pilot study showed general satisfaction levels to be positively skewed but less than the levels anticipated. Minor differences in satisfaction with categories of care were found with the highest score for the area of interpersonal care and the lowest for results. For individual questions, the highest percentage of respondents gave positive ratings to care received in the areas of respect for privacy, schedule consideration, cleanliness of environment, trust in therapist, answers to questions, friendliness of reception, concern for patient, goal comprehension, pleasantness of

physical environment, goal collaboration, respect, ease of locating the department, and amount of therapist pressure.

Respondents expressed relative dissatisfaction with the issues of repetition of information, signage adequacy, complications in getting the first appointment, meeting expectations, completeness of treatment, length of time for registration, and home program success. Dissatisfaction for these topics was measured both by low percentages of positive response and by negative response percentages greater than 10. Two other question topics, treatment explanations and home program instruction clarity, garnered negative response percentages above 10. Significant differences in satisfaction scores according to age was found regarding pleasantness of environment. Ethnic identification revealed differences in responses to questions regarding treatment explanations, and respect.

For section 4, all but 3 questions received responses of very or somewhat important from 90% of respondents. However, only 7 of the 16 questions had over 80% responses of very important. The elements of care discussed in these 7 questions were: therapist skill, self-help knowledge, improved function, treatment explanations, answers to questions, listening to patient, and concern for patient. One of the seven questions contained a new element of care: listening to patient. Two topics that were rated for satisfaction in section one received relatively low ratings for importance: privacy and attractiveness of environment. Written comments were often short

and general in nature and consequently not suitable for addition to the revised instrument. Many comments discussed topics identical or similar to issues raised in the questionnaire. New issues raised in written remarks included therapist mistakes, therapist follow-up with referrals, increased length/frequency of sessions, transportation services, and physician knowledge of services available to patients. Words and phrases used by patients suitable for inclusion in the revised instrument will be discussed in the next chapter.

CHAPTER 5

Discussion and Recommendations

The pilot study had a dual purpose: to revise the survey instrument as indicated by results and to examine patient responses to detect elements of service in need of improvement. Each purpose will be discussed separately, although some comments may apply to both discussions.

Interpreting Satisfaction Scores

The general level of satisfaction found during this pilot study was slightly lower than levels discussed in the literature review. However, a lower than average level of satisfaction does not necessarily indicate a lower level of service. The extensive use of negatively formatted questions (12 out of 25 questions) may have reduced the positive skew normally found in satisfaction surveys (Aday, et al., 1980; Munro et al., 1994; Spiegel & Blackhaut, 1980; Steiber & Krowinski, 1990; Sudman & Bradburn, 1982). The general satisfaction score may have been lower than predicted because of the inclusion of the response option does not apply, which had a score of 0, creating a false negative influence. Questionnaires with responses of 0 were retained to keep the sample size reasonable. The general satisfaction level yields little usable information in itself and can best be used as a baseline for indications of improvement over time.

Percentages of positive response for individual questions can show relative satisfaction with elements of service. However, no

standard percentage has been established as the demarcation between acceptable and unacceptable levels of patient satisfaction. If 80% of respondents in most surveys report satisfaction with services, is this sufficient for a facility to remain competitive? For this pilot study, percentages have been used primarily to set priorities for improvement. Question topics which garnered fewer than 80% positive responses take highest priority followed by those within the 80-90% range.

Results of this pilot study cannot be generalized to the population served at SFGH's outpatient rehabilitation department because of the lack of representation for the non-English speaking patients (one translation only). However, changes made in the language of the revised instrument should not impact future translations which must accommodate common word usage in the language of translation.

Revision of Instrument

The small number of new issues (five) raised by patients in written comments indicates that the pilot instrument covered most topics of importance to the patients surveyed. The issue of therapist follow-up for referral was mentioned three times, twice positively and once negatively. Another issue, the therapist making a mistake, was mentioned twice. The other four issues, transportation service, quantity of therapy sessions and physician knowledge of rehabilitation services, received only one mention each. With the exception of quantity of therapy sessions, the issues raised were not

added to the revised instrument because the researcher could not confirm the importance of these issues to the sample population. The department will most likely address these issues in quality improvement plans and note any recurrence of these issues in subsequent surveys.

According to the results for section four (level of importance), only one of the five questions containing material not covered in section one (level of satisfaction) garnered sufficient responses of very important to warrant addition to the revised survey instrument. This question, "the therapist listens to my concerns," has been added to the revised instrument in the interpersonal category of care. Two questions which received relatively low importance ratings were deleted from the revised questionnaire: one concerned the topic of privacy and the other, the topic of pleasantness of the environment. Concern for patients' privacy received the highest positive percentage rating for satisfaction (98%). The high level of satisfaction coupled with low importance suggests that the setting does not challenge privacy needs.

Regarding pleasantness of the environment, a difference in satisfaction was noted between two age groups, but the researcher decided to eliminate the question because it received fewer than 50% ratings of very important. The differences in scores for ages 51-60 versus ages 61 and over did not seem a compelling reason to include the question because there was no trend in scores for the age groups; the number of participants in the 2 groups was small ($\underline{n}=8$ and $\underline{n}=5$

respectively); and the inclusion of does not apply responses could have skewed the mean score for the 51-60 group.

In the interest of brevity, the researcher eliminated two other questions, both of which received high satisfaction ratings. Neither was rated for importance. The first, "consideration was shown for my scheduling needs," received the second highest positive response percentage (96.2). The high degree of satisfaction indicates that the present scheduling system, wherein the patient's therapist schedules new appointments at the end of the treatment session, has been successful at meeting patients' needs. The researcher chose to eliminate the second question, "it was easy to find the rehabilitation department," because the content was similar to another question regarding signs directing patients to the rehabilitation department. The former question had positive rating responses greater than 90% while the latter question received the second highest percentage of negative responses. An improvement in signs directing patients to the department would presumably also aid in the ease of locating the department.

In keeping with the original plan to incorporate patients' language as much as possible, the researcher replaced several questions with phrases written by patients. Question 14, "I feel that my therapist(s) cares about me as a person," was replaced by, "my therapist has my best interest at heart." The comment, "I really felt that I was in competent hands," replaced two questions: question 16, "the therapist was very skilled," and question 17, "I completely

trusted my therapist during treatment." The word "competent" is similar in meaning to the word "skilled," and the idea of being in someone else's hands implies trust. Question 20, "treatment improved my ability to do more of the things I need to do," was changed to, "treatment helped me to return to regular activities quickly." In the interpersonal category, the statement, "my therapist was a little indifferent," replaced the deleted question on privacy.

Question 18 regarding completeness of treatment received the lowest percent of positive responses as well as almost 20% negative responses. The low level of satisfaction indicates the necessity of retaining this topic in the revised instrument. The researcher placed the question in the category of technique to inquire about patient perception of the comprehensiveness of treatment provided by the therapist. Several written comments suggest another interpretation. The concept of completeness may refer as well to the quantity of sessions deemed sufficient to reach treatment goals. To differentiate the two meanings and to include an issue raised in written comments, the researcher reworded the original question and added a new question regarding quantity of treatment received. The new questions state, "the therapist could have done more to help me get better," and "I received as many therapy sessions as I needed to reach my treatment goals."

Question 10, "my therapist and I worked together to decide on treatment goals" was retained in the revised instrument even though fewer than two thirds of the respondents considered the issue very

important. The concept of planning treatment in accordance with a client's needs and personal goals is a basic part of occupational therapy standards of practice (AOTA, 1993). In addition, the JCAHO 1995 accreditation manual states, "The rehabilitation treatment plan incorporates, at least; the patient's personal goals for rehabilitation. . ."(p.172).

The researcher eliminated question 26 which asked respondents to rate therapy services, because patients in the pilot study rated services they did not receive and because comparison of satisfaction with type of therapy can be obtained by other methods. Question 26 was originally included to also test whether patients know the difference between types of therapy. The data from this question cannot be used in determining patient differentiation of services because patients who rated a service other than the therapy for which they were scheduled, may have rated services received at another time. The researcher added a new question, "which therapy service(s) do you now receive," to the demographic section to track patient ability to differentiate types of therapy. This question was added, even though patients ascribed relatively little importance to differentiating between therapy types, because public recognition has value to members of each discipline and may have an impact on health care policy formation.

Change in reliability with the removal of selected questions was tested by recalculating the reliability coefficient for questions 1-25 without each deleted question. No single question changed the

reliability coefficient more than 1% using Cronbach's Alpha. However, the affect on reliability of adding or rewording questions cannot be calculated at present.

Discussion of Results

Almost 95% of respondents rated improved function as very important. Slightly more than 80% agreed that treatment had improved their functional abilities. Scores in the eighties may be average for surveys in general, but may nonetheless indicate the need for further scrutiny. Even fewer respondents agreed that improvement met their expectations. One explanation for the somewhat lower scores for these two topics may lie in the small number of treatment sessions attended prior to participating in the survey. As one patient remarked, "therapy is in (the) early stages."

Question 6 regarding explanation of treatment elicited 82% positive responses but also ranked fourth highest for percent of negative responses (18%). Written comments imply that a patient's lack of knowledge may reduce participation, "I don't know what it is I don't know," and ". . . the therapist knows what she's doing so I don't discuss it with her." Northen, Rust, Nelson, and Watts (1995) suggest a link between information provision and ability to participate in decision-making processes such as setting treatment goals. Dissatisfaction with explanations may have influenced the relatively lower importance placed on treatment goal collaboration (question 10). However, regardless of their view of its importance, over 90% of respondents to question 10 agreed that they

collaborated on goal decisions. which connotes consistency of collaborative efforts by the therapists.

The less intense therapy regime of an outpatient setting requires that the patient assume responsibility for independently following a treatment plan at home. The percentage of patients conveying success with their home program (74%) may relate to the rating percentages for improved function and fulfilling expectations. Home program instructions received more positive ratings than patient performance of the home program. The difference in percentages suggest that factors other than lack of understanding influence patient follow-through. One written comment may provide a clue regarding lack of success with home programs, "I didn't want to do therapy at home. I wanted to go to outpatient therapy so I wouldn't have the distractions at home." As a county hospital, SFGH provides medical services to many of the city's homeless population. A successful home program needs to include not only therapeutic activities, but also activities which can successfully be incorporated into the patient's life.

Involvement of family or significant others in setting treatment goals was very important to only 26% of the respondents. The low rating may be due to a functional level sufficiently independent to render nonessential the inclusion of family or significant others. Another possible reason for the low rating may be lack of family or a social support network. The importance rating for this topic among

non-English speakers may differ from the ratings found in the pilot study.

The topic of repetition of information was not rated for importance. The researcher included the question as an indicator of communication between team members. Even though one patient commented, "so what if I had to explain 100 times, it's for my benefit," the ramifications of poor communication clearly appeared in another patient's remark, " (the therapist) did something that was contrary to doctor's orders. She quit when I told her what the doctor said." Rehabilitation patients may be referred by in-house physicians or by physicians from health centers at various locations in the city, presenting an added challenge to interdisciplinary collaboration. The highest percentage of negative responses indicates a need to improve the system of communication between referral source and the rehabilitation department. A strong system of communication is necessary to provide access to information about the patients' needs and to provide for a continuum of care (JCAHO, 1995). Improved communication could also help alleviate a possible problem of physician lack of knowledge about rehabilitation services that was noted by one respondent. According to the coordinator of the rehabilitation department, research regarding the department's relationship to its referral sources has been instituted (M. Han, personal communication, May 19, 1995). The investigation should lead to improved communication and consequently better service to patients.

Two questions received responses that differed according to ethnic identification: question 6 regarding treatment explanations and question 15 regarding respect. These results cannot be generalized to the groups in question because of the small number of subjects in each group ($n > 8$) and because members of some groups were unable to participate due to a language barrier. Question 6 received over 80% positive responses yet appeared fourth in the ranking for percentage of negative responses. Ethnic differences in language use and willingness to ask questions may impact quality of communication. Written comments relating to this topic asked for increased information about negative as well as positive outcomes. Question 15 stated, "my therapist(s) occasionally spoke to me in a disrespectful way." This question received less than 10% negative responses, but the difference by ethnic group adds significance to the negative percentages. The ethnic differences may be even larger if the non-English speaking groups were able to participate. Results suggest a renewed examination of cultural sensitivity within the department.

The issues of registration time and first appointment complications were acknowledged areas of dissatisfaction before the pilot study and results confirmed the need for improvement. In addition, both topics imply inefficiency of the system.

Limitations of the Pilot Study

The following limitations have weakened generalizability of results and may influence subsequent administration of the questionnaire:

- The researcher could not completely answer the third research question, "are aspects of care measured by this instrument important to the patient," because 13 of the satisfaction questions from section 1 were not included in section 4 to be rated for importance. Some questions retained in the revised questionnaire may therefore be of marginal value to patients.
 - The researcher had hoped that non-English speakers would have family or friends available to translate. Unfortunately, only one respondent had the instrument translated. This lack of translation may be a major factor behind the dearth of Asian American/Pacific Islanders in the pilot study despite their high representation in the population, and may have reduced the participation of Hispanic/Latino and other ethnic groups. The experiences and values of non-English speakers may differ from those of the survey respondents.
 - The survey instrument did not meet the communication requirements of persons with communication deficits, such as aphasia. No provisions were made to accommodate this population.
 - The presence of the student researcher may have influenced the behavior of therapists and staff.
-

- The five new questions added to the section investigating importance were selected following a review of the literature and other survey instruments. Elements of service important to patients may have been omitted. Patients may not have raised issues of importance in the written comments.
- The length of the revised instrument, although considerably shorter than the pilot instrument, may still discourage potential respondents. The planned method of administration may not include an element of persuasion equal to that provided by the researcher.

Conclusion

This pilot study has provided an effective addition to the quality management tools of SFGH's rehabilitation department. Although results were positively skewed, the questionnaire was sensitive enough to delineate areas of high satisfaction and areas of needed change. Continuous quality improvement implies a process whereby one actively seeks feedback to create positive change. The patient satisfaction questionnaire created during this study offers many opportunities for dedicated practitioners to exercise creativity and expertise in the refinement of patient care.

Recommendations

The shortcomings noted regarding section 4 (level of importance) suggest the need for comprehensive investigation, especially in translation, of what is important to consumers of

outpatient rehabilitation services. Two avenues of investigation regarding the question of importance are: discussion groups among patients to raise issues important to patients at this setting that were not found in the literature, and comparison of the relative importance of elements of service according to respondent characteristics. Understanding what different groups value is one of the main factors in providing culturally sensitive service.

In view of the relatively low score regarding patient improvement meeting patient expectations, the question arises as to what patients expect of treatment. Knowing patient expectations may help to shape treatment goals and to diminish the gap between expected outcome and patient perception of outcome.

In addition to researching expectations, comparison of patient expectations, patient perceptions of outcomes and therapist assessment of outcomes would illuminate areas of disagreement.

The area of participation is a major concern in an outpatient setting. What factors interfere with the ability to follow the home program and what factors promote success according to patients? The concept of a home program implies the existence of a home. How can a treatment program accommodate those without a home? OT's expertise in adapting activities and environments for client success seems especially necessary to answer these questions.

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Appendix A. Pilot Survey Instrument

SFGH CUSTOMER SATISFACTION SURVEY

Outpatient Rehabilitation Services

The Rehabilitation Department at SFGH wants to provide ongoing, high quality care. Your honest comments will help us to provide the best possible services for our patients. Please take a few minutes to fill out this questionnaire. When completed, please place the questionnaire into the envelope. Thank-you!

Please tell us if you agree or disagree with the following statements by checking the appropriate box.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Does Not Apply
AVAILABILITY						
1. The receptionist was friendly.	☐	☐	☐	☐	☐	☐
2. Registration took too long.	☐	☐	☐	☐	☐	☐
3. Consideration was shown for my scheduling needs.	☐	☐	☐	☐	☐	☐
4. Getting my first appointment was too complicated.	☐	☐	☐	☐	☐	☐

Comments:

COMMUNICATION/INFORMATION

5. The therapist(s) answered my questions to my satisfaction.	☐	☐	☐	☐	☐	☐
6. I wish the therapist(s) explained treatment procedures more clearly.	☐	☐	☐	☐	☐	☐
7. I had to repeat to my therapist things I already told to my doctor (or other therapist)	☐	☐	☐	☐	☐	☐
8. I understood the goals of my treatment plan completely.	☐	☐	☐	☐	☐	☐
9. The instructions for my home program were confusing.	☐	☐	☐	☐	☐	☐

Comments:

PARTICIPATION

10. My therapist(s) and I worked together to decide on treatment goals.	☐	☐	☐	☐	☐	☐
11. I know what I can do to help myself get better.	☐	☐	☐	☐	☐	☐
12. My therapist(s) tried to push me to do too much.	☐	☐	☐	☐	☐	☐

Comments:

INTERPERSONAL

13. My therapist(s) respected my privacy.	☐	☐	☐	☐	☐	☐
14. I feel that my therapist(s) cares about me as a person.	☐	☐	☐	☐	☐	☐
15. My therapist(s) occasionally spoke to me in a disrespectful way.	☐	☐	☐	☐	☐	☐

Comments:

Please check the appropriate box

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TECHNIQUE

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Does Not Apply
16. The therapist was very skilled.	☐	☐	☐	☐	☐	☐
17. I completely trusted my therapist(s) during treatment.	☐	☐	☐	☐	☐	☐
18. The treatment I received could have been more complete.	☐	☐	☐	☐	☐	☐

Comments:

RESULTS

19. The program was less helpful than I expected.	☐	☐	☐	☐	☐	☐
20. Treatment improved my ability to do more of the things I need to do.	☐	☐	☐	☐	☐	☐
21. I am unable to do my home program.	☐	☐	☐	☐	☐	☐

Comments:

ACCESS/PHYSICAL ENVIRONMENT

22. It was easy to find the rehabilitation department.	☐	☐	☐	☐	☐	☐
23. There should be better signs to direct patients to this department.	☐	☐	☐	☐	☐	☐
24. The treatment area was very clean.	☐	☐	☐	☐	☐	☐
25. The treatment area was physically unpleasant.	☐	☐	☐	☐	☐	☐

Comments:

26. Please rate the following therapy services: (Please circle your answers)

	Excellent	Above Average	Average	Average	Below Poor	Did Not Receive
Occupational Therapy	A	B	C	D	E	N/A
Physical Therapy	A	B	C	D	E	N/A
Speech Therapy	A	B	C	D	E	N/A
Other _____	A	B	C	D	E	N/A

If you gave any service a low rating, please tell us why:

27. What could the rehabilitation department have done to make your experience better?

28. Please share with us any comments or stories about your experience with our rehabilitation department.

ADDITIONAL INFORMATION

29. How did you get to the hospital? (Please check box)

☐ bus/cab	☐ walk
☐ friend or family member drive	☐ drive self
☐ special transportation service	☐ other _____

30. Who referred you to our rehabilitation department? (Please check box)

SFGH Clinics:

☐ Family Practice	☐ Ortho
☐ Medicine	☐ Trauma
☐ Neurology	☐ Health Centers
☐ Neuro Surgery	☐ Other _____

Other Clinic (Not SFGH): _____

31. Why were you referred to rehabilitation? _____

We want to make sure everyone receives equally excellent service. We also want to find out if any group has special needs. You can help us by telling us:

32. What is your age? _____ years.

33. What is your sex? ☐ Male
☐ Female

34. What is your ethnic identification:

☐ African-American/Black	☐ Caucasian/European
☐ Native American	☐ Latino/Hispanic
☐ Asian/Pacific Islander (please specify) _____	
☐ Other (please specify) _____	

Please let us know what is important to you. (Circle your answers)

	Very Important	Somewhat Important	Not Important
35. I help decide on treatment goals.	1	2	3
36. Therapist cares about me.	1	2	3
37. Therapist explains treatment.	1	2	3
38. Therapist is highly skilled.	1	2	3
39. My questions are answered to my satisfaction.	1	2	3
40. Therapist listens to my concerns.	1	2	3
41. I learn how I can help myself.	1	2	3
42. Family/significant others included in treatment planning.	1	2	3
43. I improve my ability to do what I need to do.	1	2	3
44. Physical comfort during treatment sessions.	1	2	3
45. I understand the difference between types of therapy.	1	2	3
46. Privacy.	1	2	3
47. Staff and therapists are friendly.	1	2	3
48. Attractiveness of treatment area.	1	2	3
49. Cleanliness of treatment area.	1	2	3
50. Sessions are on time.	1	2	3

THANK YOU FOR YOUR TIME AND HONESTY IN ANSWERING THIS QUESTIONNAIRE.

Appendix B. Revised Survey Instrument

SFGH CUSTOMER SATISFACTION SURVEY Outpatient Rehabilitation Services

S P O

The Rehabilitation Department at SFGH wants to provide ongoing, high quality care. Your honest comments will help us to provide the best possible services for our patients. Please take a few minutes to fill out this questionnaire. When completed, please place the questionnaire into the envelope. Thank-you!

Please tell us if you agree or disagree with the following statements by checking the appropriate box.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Does Not Apply
AVAILABILITY						
1. The receptionist was friendly.	☐	☐	☐	☐	☐	☐
2. Registration took too long.	☐	☐	☐	☐	☐	☐
3. Getting my first appointment was too complicated.	☐	☐	☐	☐	☐	☐

Comments:

COMMUNICATION/INFORMATION

4. The therapist(s) answered my questions to my satisfaction.	☐	☐	☐	☐	☐	☐
5. I wish the therapist(s) explained treatment procedures more clearly.	☐	☐	☐	☐	☐	☐
6. I had to repeat to my therapist things I already told to my doctor (or other therapist)	☐	☐	☐	☐	☐	☐
7. I understood the goals of my treatment plan completely.	☐	☐	☐	☐	☐	☐
8. The instructions for my home program were confusing.	☐	☐	☐	☐	☐	☐

Comments:

PARTICIPATION

9. My therapist(s) and I worked together to decide on treatment goals.	☐	☐	☐	☐	☐	☐
10. I know what I can do to help myself get better.	☐	☐	☐	☐	☐	☐
11. My therapist(s) tried to push me to do too much.	☐	☐	☐	☐	☐	☐

Comments:

INTERPERSONAL

12. My therapist(s) was a little indifferent.	☐	☐	☐	☐	☐	☐
13. My therapist has my best interest at heart.	☐	☐	☐	☐	☐	☐
14. My therapist(s) listens to my concerns.	☐	☐	☐	☐	☐	☐

Comments:

Please check the appropriate box

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Does Not Apply
TECHNIQUE						
15. I really feel that I am in competent hands.	☐	☐	☐	☐	☐	☐
16. The therapist could have done more to help me get better.	☐	☐	☐	☐	☐	☐
17. I received as many therapy sessions as I needed to reach my treatment goals.	☐	☐	☐	☐	☐	☐
Comments:						

RESULTS

17. The program was less helpful than I expected.	☐	☐	☐	☐	☐	☐
18. Treatment helped me to return to regular activities quickly.	☐	☐	☐	☐	☐	☐
19. I am unable to do my home program.	☐	☐	☐	☐	☐	☐
Comments:						

ACCESS/PHYSICAL ENVIRONMENT

20. There should be better signs to direct patients to this department.	☐	☐	☐	☐	☐	☐
21. The treatment area was very clean.	☐	☐	☐	☐	☐	☐
Comments						

22. What could the rehabilitation department have done to make your experience better?

23. Please share with us any comments or stories about your experience with our rehabilitation department.

ADDITIONAL INFORMATION

24. How did you get to the hospital? (Please check box)

☐ bus/cab	☐ walk
☐ friend or family member drive	☐ drive self
☐ special transportation service	☐ other _____

25. Who referred you to our rehabilitation department? (Please check box)

SFGH Clinics:

☐ Family Practice	☐ Ortho
☐ Medicine	☐ Trauma
☐ Neurology	☐ Health Centers
☐ Neuro Surgery	☐ Other _____

Other Clinic (Not SFGH): _____

26. Why were you referred to rehabilitation? _____

27. Which therapy service(s) do you now receive:

- ☐ Occupational Therapy (OT)
☐ Physical Therapy (PT)
☐ Speech Therapy (ST)
☐ Other _____

We want to make sure everyone receives equally excellent service. We also want to find out if any group has special needs. You can help us by telling us:

28. What is your age? _____ years.

29. What is your sex? ☐ Male
☐ Female

30. What is your ethnic identification:

☐ African-American/Black	☐ Caucasian/European
☐ Native American	☐ Latino/Hispanic
☐ Asian/Pacific Islander (please specify) _____	
☐ Other (please specify) _____	

THANK YOU FOR YOUR TIME AND HONESTY IN ANSWERING THIS QUESTIONNAIRE.

Appendix C. Consent Form

College of Applied Sciences and Arts • *Department of Occupational Therapy*
One Washington Square • San José, California 95192-0059
Main Office: 408/924-3070 • Fieldwork Office: 408/924-3078 • FAX: 408/924-3088

Dear Participant:

I am a graduate student at San Jose State University and I would like your help in conducting a study of outpatient satisfaction with the services and environment of the rehabilitation department at San Francisco General Hospital. The results of this study will help the members of the rehabilitation department to give you the kind of health care that you think is important. The attached questionnaire asks for your opinions and comments. Please take 15 minutes to complete the questionnaire. When you are finished with the form, please put it in the envelope provided and return it to me.

Please understand that your participation is voluntary. The questionnaire is anonymous and will be kept in the possession of the student researcher only. Choosing not to participate will not affect your relations with the rehabilitation department or with San Jose State University.

The results of the study may be published but there will be no information that could result in your identification. There are no risks associated with this study and it is hoped that the survey will benefit you and other patients by helping the rehabilitation department to continuously improve the quality of health care services.

If you have any questions about this study, I will be happy to talk with you. You can reach me at (408) 924-3070. If you have questions or complaints about this study or about research subject's rights, or in the event of a research related injury, please contact Serena Stanford, Ph. D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Sincerely,

Renais Winter, OTS

Graduate Student Researcher

Appendix D. Permission to Use Human Subjects

City and County of San Francisco

**Department of
Public Health**

**San Francisco General Hospital
Medical Center**

April 10, 1995

Dr. Gordon Burton
Occupational Therapy Department
San Jose State University
1 Washington Square
San Jose, CA 95192-0059

Dear Dr. Burton,

Your graduate student in Occupational Therapy, Renais Winter, has requested to conduct a patient satisfaction survey for the Department of Rehab Services at San Francisco General Hospital. We are delighted to provide Renais the opportunity to conduct her research at SFGH. It is our mission as a teaching hospital to participate and support training and research efforts. This project is considered as part of the continuous quality improvement project for the Rehab Department. We believe that the results of her research will help us improve the quality of care that we provide to our patients.

Sincerely yours,

A handwritten signature in cursive script that reads "Margaret Han".

Margaret Han, Ph.D.
Rehab Coordinator

Office of the Academic Vice President • Associate Academic Vice President • Graduate Studies and Research
One Washington Square • San José, California 95192-0025 • 408/924-2480

TO: Renais Winter
427 Vernon St.
San Francisco, CA 94132

FROM: Serena W. Stanford *Serena W. Stanford*
AAVP, Graduate Studies & Research

DATE: April 24, 1995

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Pilot Test of an Outpatient Satisfaction Survey for
the Rehabilitation Department of San Francisco
General Hospital (SFGH)"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Serena Stanford immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that each subject needs to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal, will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.