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Angello, Mary L., Ph.D.

City University of New York, 1989

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THE DENTIST-PATIENT RELATIONSHIP: PERCEPTIONS OF PATIENT NEEDS

by

MARY L. ANGELLO

A dissertation submitted to the Graduate Faculty in Sociology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1989

This manuscript has been read and accepted for the Graduate Faculty in Sociology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

THE DENTIST-PATIENT RELATIONSHIP: PERCEPTIONS OF PATIENT NEEDS

by

Mary L. Angello

Advisor: Lindsey Churchill, Ph.D.

This research examines the dentist-patient relationship utilizing data collected from twenty-one private dental offices and 276 dental patients who participated in a dental quality assurance project. The findings of this study support several hypotheses: One, various dental patient types can be found in a dental practice; two, the dental practitioner recognizes the needs of these patient types and attempts to satisfy them through his/her work and chairside talk. Three, the mutual participation model as described by Szasz and Hollender can be used to examine the dentist-patient relationship.

Two dental patient types, Comfort Needs and Esthetic Needs are identified. An Oral Disability Index classified 92 patients as Comfort Needs and 39 patients as Esthetic Needs. Comfort Needs

patients are more likely to be female, 51 years of age or older, have a high school education or less and a family income of under $20,000. The average Esthetic Needs patient is also most likely female, 31 to 50 years of age, has a college background and a family income of $35,000 or over. The utilization of dental services was examined and notes Comfort Needs patients rank restorative services first, then diagnostic and preventive services. Esthetic Needs patients rank fixed prosthetic services first, followed by diagnostic and restorative services.

An analysis of chairside conversations indicates the dentist identifies each dental patient type and uses talk to develop a relationship. Both dentist and patient use ties (direct/indirect remarks) which relate to pain or esthetics to achieve cohesiveness in the conversation. Evidence shows chairside talk functions to initiate and sustain a sense of continuity of dental care. Several theoretical models are used to explore the dentist-patient relationship. This study substantiates that the creation of an atmosphere in which patient needs are expressed and addressed is an important element of the dentist-patient relationship.

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CHAPTER 1

INTRODUCTION

The purpose of this study is to investigate the interaction between the dentist and the dental patient in the dental office. Two types of dental patients are identified and used to explore the nature of the relationship between patient and dentist. The dentist-patient relationship has not been the subject of formal research in dental sociology or for students in any phase of dentistry. More often than not, it has been the focus of jokes, comedy or less serious drama. Journals designed to reach dental practitioners who are not primarily interested in research but in solutions to everyday problems, will include articles about interpersonal relations. Dental Economics and Dental Management are two of the journals that provide articles about practice management with tips on how to deal with patients. Dental marketing experts supply strategies on how to attract patients.

Most studies look at the negative influences exerted on the relationship by both dentist and patient, according to Ayers'(1982) review of research on dentist and patient behaviorial attitudes.

The dentist-patient relationship is multifaceted and numberous factors influence that relationship. Bishop (1983) describes this relationship as:

> "Interactions between the dentist and that patient that involve mutual understanding and that affect patient satisfaction and patient compliance; two quality issues. It expresses, on one hand, the dentist's interest and concern for the patient and the patient's health and, on the other, the patient's trust and the patient's confidence in the skill and ability of the dentist."

The responsibility of the dental professional towards the patient has been elaborated on by dental schools in their training programs and by dental associations in their philosophy of dental care. These responsibilities focus on individualized dental care of high quality as recognized by standards of acceptable care and monitoring of the care rendered the patient. The dentist is to maintain professional competence through continuing education; to keep abreast of the patient's physical and emotional health through updated dental and medical histories; and to advocate patient compliance to prescribed regimens of treatment. No one in dentistry disputes the professional and legal accountability of the dentist for diagnosis, treatment and planning, yet the idea of the rendering of dental services as an "intrinsically more personal method of earning a living than is manufacturing of a product" (Bishop 1983)

is prevalent among dental providers. Dentists tend to agree that it is the reputation a dentist earns through his/her personality and patient rapport that directly influences his/her success or failure. The professional's ability to fully understand the patient's psyche and psychosocial needs not only influences his/her own relationship, but is reflected in office design, practice management and personnel training. However, few studies exist which probe dentist-patient interactions conducted on a one-to-one basis in a relatively long-term relationship. This study attempts to focus on some aspects of the microsocial world of the dental practice.

Various models of the physician-patient relationship have incorporated the concept of roles and reciprocal role expectations. Parsons (1951) defined specific variables, achievement, universalism, functional specificity, affective neutrality and collectivity orientation, as shaping the privileges and responsibilities of the physician's role. His concept of the sick role characterizes the reciprocal role expectations of society for the patient. Szasz and Hollender (1956) described three basic models of interaction between patient and physician. In the first model, activity-passivity, the physician assumes all the responsibility for the patient's care; the extreme situation involves a comatose or unconscious patient. In the

second model, guidance-cooperation, the physician gives advice, direction or instructions and the patient complies. In the third model, mutual participation, responsibility for the therapeutic interaction is shared by both the physician and the patient. Szasz believed that the mutual participation model was necessary in psychoanalysis to create an atmosphere in which the patient could reflect upon bodily signs and re-interpret them into ordinary language. This model calls for a reciprocal, collaborative relationship between participants to insure successful treatment.

Martin Lipp, in The Bitter Pill, presents successful relationships between physicians and patients which depend on each adequately meeting the needs of the other:

> "Oftentime these wishes are only vaguely understood and both doctor and patient are seldom able to articulate exactly what they seek at any given time. Moreover each person's needs change as circumstances change."

The dentist-patient relationship has not been examined in the same depth as the relationship between the physician and the medical patient. Yet this relationship is often an intense intimate face-to-face encounter extending for long periods of time. This study examines the components of a dentist-patient relationship which hs remained intact over a period of five years or more,

indicating the existence of a successful alliance. I assume the patient has developed trust in the dentist and I examine the work done by the dentist to maintain the equilibrium of the relationship.

The research reported here supports the hypothesis that the mutual participation model best describes the successful dentist-patient relationship, but does not describe it completely. Dentists accommodate the needs of patients according to perceived types; comfort needs, function needs and esthetic needs patients. Comfort needs patients are concerned with the control of pain and anxiety. Function needs patients widh to retain and maintain the use of their teeth. Esthetic needs patients are interested in how they look. The dental practitioner meets these needs in the process of providing dental services.

Twenty-one dentists and 276 patients in private practices in Westchester, Nassau and Suffolk Counties, and New York City provided the data used in identifying the typology of patients, the utilization of dental services by each patient type, and the elements of talk between patient and dentist. An examination of the utilization data indicates the dentist renders different rates of treatment for each patient type. Audio-taped conversations between the dentist and the patient provided the raw data for an ethnomethodological

analysis which demonstrated that a reciprocal interaction between the participants serves to develop and maintain the dentist-patient relationship over a number of years. This dissertation analyzes the elements of the interaction.

CHAPTER 2

THE DENTIST-PATIENT RELATIONSHIP: PREVIOUS RESEARCH

The past two decades have seen a proliferation of research in dental patient problems such as compliance, motivation, expectations, dental values and patient satisfaction (Chambers 1972, Strauss 1976, Weisenberg 1972, Weinstein et al 1979, Jenny 1973, O'Shea 1971, 1982 and Corah et al 1986). Dental studies concerned with the dental practitioner have focused on quality of care, technical competence, dental career pathways, and the economics and organization of the dental practice (Stern et al 1979, Milgrom et al 1980 and Rosner 1975). Few studies exist which take as their topic of investigation, the interaction between the dentist and the dental patient.

In 1965, an exploratory study was initiated by the Den al Health Education and Research Foundation of the University of Sydney, Australia to shed some light on the dentist-patient relationship (Martin et al 1965). The research team was guided by the realization that the dentist-patient relationship was of crucial importance to the standing of dentistry with the public. After eighteen months

of interviews with dental groups and laypeople, they found a strange and unsatisfactory relationship between dentists and patients.

The empirical evidence they present documents the lack of trust patients have in dentists, the dislike patients feel for the passive role they assume in the dental chair, and the lack of control over the power of speech. Patients interviewed identified the dentist as "impersonal, business-like and efficient" with a "disregard for the humanity of the patient" (Martin pg. 34). Patients, especially women, attached great importance to the fact that with physicians they have a choice in what information they reveal to him. With the dentist, there is no discussion of symptoms or professional information necessary to allow the dental work to proceed. The dentist, in the patient's view, is not dependent on prolonged questioning to do his/her work.

Martin and his research team concluded that the dentist is in constant tense relationship with the patient throughout the performance of the dental procedure. They suggest the dentists compensate for the hostile and unstable psychological climate in which they work (negative feedback from patients and society, stated or unstated) by withdrawing, allocating the task of educating the patient to dental assistants and dental hygienists, by exaggerating their interest in

technical competence and "their subtle but very effective detachment and withdrawal from involvement with patients" (Martin, pg. 40). They recommended that dental school curriculums include courses in human problems and interpersonal relationships to help dentists cope with their own anxieties, the patients' needs and the demands of their profession.

Weinstein and co-authors (1973) looked at the relationship dental students develop with their clinical patients when students are being socialized into the dental profession. Using a sample of 97 junior and senior dental students and 799 clinical patients, Weinstein tried to assess patient measures of dissatisfaction and discomfort and student attitudes towards patients. Although Weinstein et al were not successful in providing determinants of patient dissatisfaction, they did conclude that class standing of the student was an important predictor of patient measures. Patients of the senior dental students expressed more dissatisfaction, more anxiety and presented a higher rate of discontinuation of treatment than the patients of the junior dental students. The junior dental student not fully socialized into the dental profession was more successful in the management of the dental patient.

Shub (1978) examined the dental student-patient relationship

and how it is influenced by the mechanical and technical aspects of patient care in a dental school clinic setting. The faculty's primary focus on the technical aspects of patient care causes the dental student to define the patient's role in terms of completed work and final grades. The consequence of this training is depersonalization and a narrowing of the dental student's interest to the oral cavity, more specifically to the tooth.

Corah (1986) expresses the dentist-patient relationship as reciprocal expectations which are influenced by the perceptions of both participants. Several studies list various elements of satisfaction as perceived by patients (Kress and Silversin 1985, Hengst and Roghmann 1978): patients prefer dentists who minimize their waiting time, dental offices that are attractively furnished, evidence of modern up-to-the minute equipment; dentists highly visible in the community who staff hospitals and dental schools and dentists who take time to explain and consult.

Jenny (1973) surveyed reasons why parents are satisfied or dissatisfied with their children's dentist. The results indicated 91% of the sample were satisfied with their dentist. For reasons why, 52% ranked professional competence high; 37% ranked the dentists' relationship with their children high and 34% ranked personal charac-

teristics as high. These personal characteristics included: liking the dentist personally, the dentist was honest, careful, kind and humorous, patient, gentle and shows great concern. Jenny noted parents in high socioeconomic levels were more likely to cite professional competence and those parents in low socioeconomic levels to value the dentist's relationship with their children as high. However, Jenny found an inability on the part of parents to evaluate the technical competence of dental treatment and therefore, suggests parents are responding to and using the positive personal characteristics of the dentist as indicators of professional competence. Mechanic (1985) also found medical patients when questioned will assume their doctors are technically competent and look for warmth and physician interest in them as individuals, especially in times of frightening or serious illness. Linn (1967) states the patient who voluntarily presents for treatment implicitly accepts the dental provider's authority and competence. Bailit (179) indicated a low level of variance among dental practices surveyed for patient satisfaction, technical competence and dentist personality. Patients in these dental offices who had been treated for at least three years were basically all satisfied with their dentist.

The consensus among researchers sees the successful dental

practice as dependent on the quality of the dentist and patient interaction much more than on the technical ability of the dentist (Martin 1965, O'Shea 1986, Corah 1986). Though patients claim they search for a competent dentist, they actually look for a dentist they like and then attribute technical competence to the dentist.

Corah et al (1982) in an attempt to define the scope of problem behavior by patients which can affect the technical and interpersonal quality of care screened 466 dentists. They found an inverse relationship between the frequency of occurrence of problem behavior and bother to the dentist. Four behaviors which occurred with some frequency: showing fear, not keeping mouth open, talking during treatment and jerking head away are cited. Showing fear was the most frequent behavior but ranked lowest in bother to the dentist. Grabbing the dentist's hand ranked first in bother to the dentist but last in frequency of occurrence. These findings suggest the dentist's expectation for fear-related behavior and for a demonstration of patient confidence in technical ability. Grabbing his/her hand or jerking head or body away during injection or drilling implies a lack of confidence in the dentist. Corah assumes these hostile behaviors are attempts by the patient to deal with stress or fear. When asked how they cope with problem behavior, the

dentists responded "by refusing to continue a bothersome patient in the practice." (Corah 1982, pg. 832.)

O'Shea (1985) found dentist's perceptions of patients tend to fall into three broad categories, dental sophistication (the patient has positive and appropriate attitudes towards dental care); likeability (the patient is on time, follows advice, and is likely to pay bills on time.)

Weinstein et al (1979) shows significant relationships between the dentists' perception of patient values and the quality of care provided. Patients who value dental care receive a higher level of restorative care than those patients perceived as non-appreciative.

O'Shea (1986) concluded the dentist perceives patient dissatisfaction with the management of pain and anxiety, the quality of care and with patient handling in general as primary factors for why patients leave a practice. The "art of caring" (Kress and Silversin 1975) measured by dentists in terms of patient satisfaction deals with the interpersonal elements of the relationship between the office and the patient. The dentist strives to achieve patient satisfaction to maintain their patronage and to stimulate additional

referrals, Dentists increase their marketing efforts as they become aware of the need to tailor their practices to meet specific needs of patients: offices located in convenient areas, services offered at convenient times; fees and payment terms (use of charge services) compatible with the patient's ability to pay (Mangold 1986).

The dental practitioner's perceptions of what the patient's needs are shapes the dental practice in terms of decisions made, affecting the organization and structure of the office, the types of and ways in which services are delivered and the nature and quality of the dentist-patient interaction.

CHAPTER 3

MODELS OF PRACTITIONER-PATIENT RELATIONSHIPS

Differing theoretical perspectives provide models of patient-practitioner relationships in the medical sociology literature. The most influential analysis, formulated by Parsons (1951) analyzes patients and practitioners in terms of social roles learned by the participants, with certain rights, privileges, and obligations. The characteristics of the physician's professional role are achievement, universalism, functional specificity, affective neutrality, and collectivity orientation. The technical-specificity of professional behavior is the basis for the doctor's achieved status and autonomy. The universalistic variable assures that the physician treats all patients alike, and the norm of functional specificity requires that all interaction with the patient be limited to the relevant areas of the illness. Affective neutrality refers to the distance the physician is to maintain from the patient so as to maintain objectivity in diagnosis and treatment. A collectivity orientation directs the the physician to work in the interest of the society at large and not for his or her own particular interests. According to Parsons,

these values are instilled in the professional through early family socialization and later, through medical socialization.

Parsons(1951) conceptualized the patient's privileges and obligations in the sick role (pg. 428-447) as exemption from normal social obligations, not responsible for his/her condition, but responsible for recognizing that there is a problem that needs help, seeking technically competent help, and cooperating with the physician. Parsons saw the roles of physician and patient as learned sequences of behavior, necessary to minimize the dysfunctional effect too high a rate of illness could have on society. In response to criticisms from other social scientists that his model stressed the physician's dominance over the patient, Parsons (1975) emphasized the necessity for an asymeetric relationship between the physician and patient, stating that the "therapeutic benefits of the vast accumulation of medical knowledge and competence" depended on the inherent "institutionalized superiority of the physician's role" (pg. 271-272).

Building on the Parsonian model, Szasz and Hollender (1956) developed three basic variants of the nature of the relationship itself:

1. Activity-passivity: Physician is active and does something

to the patient. Patient is passive, unable to respond or interact.

2. Guidance-cooperation: Physician gives advice, direction or instruction. Patient is cooperative, seeking help from the physician.

3. Mutual participation: Physician helps patient to help him/herself. Patient is partner in decision making and problem-solving.

The Szasz and Hollender model of mutual participation requires that participants:

1. "have approximately equal power.
2. be mutually interdependent, i. e. (need each other).
3. engage in activity that will be in some ways satisfying to both." (Szasz and Hollender 1956, pg. 102).

The first two variants of this model, activity-passivity and guidance-cooperation are essentially doctor-centered situations and laden with power. They approximate very closely Parsons' model of the physician as an agent of social constrol over the patient. Szasz and Hollender suggest that the mutual participation model is an anomaly in medicine, requiring the physician to develop a relationship "characterized by a high degree of empathy, has elements often asso-

ciated with notions of friendship and the imparting of expert advice " (pg. 103). They felt each of the three basic variants could be useful in patient management in the appropriate situation. Their description of the therapeutic relationship "as a situation (more or less fixed in time) and as a process (leading to change in one or both participants)" (pg. 106) allows for the physician and patient to complement each other. Szasz and Hollender felt quite strongly that the mutual participation model is not compatible with the way medicine is currently practiced.

Bloom (1963), accepting Parsons' premise of the physician-patient relationship as a social system, presents a transactional model which places this relationship in a field of forces (pg. 24). This external environmental field, which determines the expression of the role and status of the actors, includes for the physician, the professional culture, for the patient, the familial culture, and for both, the external dominant sociocultural matrix. The dynamics of this field are similiar to Parsons' socialization model in that the learned sequences of behavior influences the behavior of the actors. Bloom goes on to describe the internal dynamics of the relationship's interaction as occurring on two levels:

1. "in processes of communication which emphasize social-emotional

problems (expressive)

2. ways that focus on the main task on hand (instrumental)" (pg. 247) with roles being explicit (meeting expectation of assigned role) or implicit (changing role-structure). The equilibrium of the relationship is dependent on the complementarity of roles. Bloom suggests that the transactional aspects (both verbal and non-verbal processes) of the physician-patient relationship can be manipulated by the physician for effective patient management.

Freidson (1961, 1970) challenged the Parsonian model, viewing the physician-patient relationship as a clash between two distinct social systems. He focused on the conflict between the competing interests of the physician and patient. He saw the physician in a power situation and patients influenced by their interpersonal networks in their everyday lives, interacting in different situations compromising their expectations and needs. Freidson found that patient confer with other laypeople on health problems and found physicians to be client-dependent (Friedson 1970) when they worked in a solo practice. He questioned the possibility of mutual participation between patient and physician, noting that physicians expect compliance but patients "seek service on their own terms." (Freidson 1961, pg. 191). Hauser (1981) suggests that the mutual participation

model may not be "realizable" (pg. 135) unless the current method of health care delivery changes.

The current mode of health devlivery assumes the imbalance of the physician-patient relationship as necessary to cure the patient (Parsons 1975). Freidson (1970) states the dominance of the physician is grounded in the physician's ability to control information. Wolinsky (1980) and West (1984) see the institutionalized physician's dominance in almost every social situation and especially in interpersonal encounters as a result of situational dependency, situational authority and professional prestiage. Situational dependency because the patient is aware he/she cannot provide for the health care he/she needs. Situational authority defined as the legitimation of the physician's right to a monopoly over medical knowledge and specialized training which grants them exclusivity over who provides medical services. Professional prestiage secured by the certification given physicians as licensed healers in this society gives physicians a distinct advantage in all social interactions. Though Wolinsky acknowledged the mutual participationg model could be applied to cases of preventive medicine where routine physical exams engage both the patient and the physician, he cautioned that the basis of this model was equal levels of specialized knowledge. Without this base of

These models of physician-patient relationships are theorical types which can be used to measure findings from empirical studies.

Empirical studies attest to the dominance of doctor-centered communication and distortion of information in interactions between physicians and patients. Plaja (1968) studied physicians and patients in three outpatient clinics in Colombia and documented several styles of physician-patient interaction. Three groups of physician styles were identified:

1. Bureaucratic, task-oriented: Characterized by efficient, limited sensitivity, this style utilized a standard form of questioning from which the physician did not deviate.
2. Insecure and detailed: The contacts were long and mechanically detailed; patients' responses ranged from vague and incorrect with irrelevant details given, to detached and matter of fact.
3. Amiable, person-oriented: This style used an individualized approach characterized by empathy and explicit awareness of the patients and their complaints.

specialized knowledge intrinsic to both participants, the physician-patient relationship is essentially asymmetrical.

The recent emergence of consumerism as a social movement which curtails the power of the seller to compete, monopolize production and options for the buyer (Haug and Lavin, 1983) has attempted to challenge the physicians' dominance of medical interactions. A consumerist perspective implies "the seller has no particular authority; if anything, legitimated power rests in the buyer, who can make the decision to buy or not buy as he or she sees fit" (Haug and Lavin 1981, pg. 213).

Haug and Lavin (1983) set forth a consumer mode of the physician-patient relationship which is based on:

1. mutual exchange between problem-solving participants.
2. The patient orchestrates he/her own health care.
3. The patient selects from various consultants and services for assistance.
4. The patient assumes responsibility for the choices made and monitors his/her health services carefully.
5. The patient sees the physician as a part-time consultant with specialized expertise, but limited knowledge of or interest in the patient's total health care needs. (Pratt 1978, pg. 209)

Plaja's prominent finding was that the amiable and person-oriented physician style was demonstrated by student physicians. Their exchanges with patients were a collaborative effort which included discussion of both medical symptoms and emotional problems.

Another study which appears to confirm the narrow focus of a doctor-centered style was conducted by Byne and Long (1972). They identified four styles of interviewing used by more than sixty general practitioners with 2500 patients:

1. Silence, listening, reflecting.
2. Clarifying and interpreting.
3. Analyzing and probing.
4. Gathering information.

However, they noted only three physicians used the style pattern of silence, listening and reflecting, which they determined to be patient-centered. All of the other physicians maintained control over the patient by utilizing one or several of the other three styles which are clearly doctor-centered.

Many empirical studies have substantiated the theme of asymmetry between physician and patient (Davis 1968, Labov and Fanshel 1977, West 1984, Mishler 1984). West's (1984) analysis of empirical studies of physican-patient discourse found problems related to the

use of medical jargon, the lack of sociable conversation, medical sessions too short to permit patient expressions of chief concerns (McKinley 1975, Pendleton and Bochner 1980). Sociable conversations were often categorized as extraneous or inappriopriate (Bain 1979, Brody and Stokes 1970 and Korsch and Negrete 1968). Davis (1968) suggests good rapport with a patient means the physician is in control. Korsch and Negrete (1968) found physician friendliness is a component of patient satisfaction and stressed good rapport as necessary to patient compliance. Mishler (1984) demonstrated that current forms of clinical practice based on an imbalance of power between patients and physicians cannot allow for quality or humane medical care.

The relationship between the dentist and the dental patient differs from the physician-patient relationship in the definition of the health problem and the scope of the medical authority. The dental patient is disinclined to view a dental health problem as an illness. Though the dental problem may cause discomfort and perhaps some dysfunctioning, it is not experienced by the patient (or by the dentist) as life-threatening. The average dental patient will usually visit the dentist for a check-up with a specific problem in mind. When an acute dental episode occurs, the patient expects the

dentist will provide a cure or relief from pain.

Dental patients see the dentist working within a very narrow scope of practice. Only problems of the teeth and gums fall within the dentists' range of expertise even though they are trained to recognize and treat other oral diseases (O'Shea and Fusillo 1971). Dental patients find a dentist first and then attribute technical competence to the one they have settled on. Dental patients rarely shop for dental care, but accept care as provided by their dentist without question. Dental patients seem to value their dentist on a level other than technical competence. Studies in patient satisfaction indicate professional competence and personal characteristics are the most important criteria for remaining with a dentist (Jenny 1973), but since patients have no way of evaluating technical competence, their main criterion for evaluating a dentist are personal characteristics. Where patients are highly dissatisfied and consider changing dentists, the reason most cited is financial expense (O'Shea 1986).

The research undertaken in this study has been guided by the assumption that a mutual participation model is invoked as the dentist and patient establish a working relationship. Some aspects of a consumerist model may be operating which can explain certain elements

of the interaction which occurs. (Note Table #3-1).

TABLE #3-1

ELEMENTS OF DENTIST-PATIENT INTERACTION

Mutual Participation Model	Consumer Model
1. Patient is not knowledgeable about dental services he/she	1. Patient buys expert technical skills as needed.
2. Routine dental exams involve dentist-patient in prevention of oral disease	2. Patient is not really sick, is not dependent on care.
3. Fees are not a consideration for services patient sees as offered by the dentist.	3. Fees are factor in use of dental services.
4. There is a mutual selection process operating.	4. Dentist sells self and dantal services.
5. Dentists tailor practice to meet patient needs.	5. Dentist gives patient what patient wants, not what he/she thinks is best.

Mangold (1986) presents a behavioral model of a dental consumer decisionmaking process that may bring the dental patient to the dental practice. The dental consumer recognizes the need for dental services because of an immediate physical problem such as pain or from a basic understanding of the need for regular dental care. The patient then uses some channel of communication to gather information about price, dental services, personal appeal of the dentist and professional qualifications. The patient may use a layperson referral system or nonpersonal sources such as newspapers, radio ads

or local professional associations. The patient then makes a decision according to the information he/she considers important. Then a dentist or dental clinic is selected.

The elements of a mutual participation model as set forth by Szasz and Hollender can be seen in the dentist-patient relationship:

1. "have approximately equal power:"
    a. The dentist selects his/her patient deliberately according to personal compatibility.
    b. The patient can leave the practice at any time and terminate treatment at any stage.
    c. The patient though a passive participant in the dental chair can always bite the dentist's finger, refuse to open his/her mouth, break appointment etc.
2. "are mutually interdependent:"
    a. The dentist is dependent on the patient as client. Without the client's patronage there is no dental practice.
    b. The patient needs the dentist to perform and complete dental procedures or (if necessary) for a clean bill of dental health.

3. "engage in activity that will be in some ways satisfying to both:"

    a. The dentist takes pride in technical dental competence thus maintaining a sense of professionalism.

    b. The patient has a sense of increased self-esteem.

    c. The patient's perceived needs based on the dysfunctioning oral problems are attended to by the dentist.

    d. The dentist experiences fulfillment of his/her professional role in attending to the patient's perceived needs.

Szasz and Hollender allude to this experience: "The physician's gratification cannot stem from power or from control over someone else. His satisfactions are derived from more abstract kinds of mastery, which are as yet poorly understood." (1956, pg. 103).

It is common for dentists to acknowledge among themselves that the dentist-patient relationship is built on compatibility between dentist and patient and not on the quality of care. Table #3-1 indicates that some elements of the mutual participation model and the consumer model can explain some of the sources of compatibility dentists and patients share: There is mutual

selection of participants; dentists structure their practices to meet patient needs; dentists comply with patient demands and not what they may feel is better dental treatment.

There are no studies available that examine patient needs in terms of their own perception of oral dysfunctioning. This study identifies patient perceptions of their dental needs and examines whether satisfaction of these needs constitutes a basis for compatibility between dentist and patient.

CHAPTER 4

RESEARCH DESIGN

One of the goals of this study is to identify types of patients who use the services offered by the dental practitioner. I am aware because of my past experiences working in dental offices that dental patients demonstrate specific needs which reflect their primary orientation towards life in general. Some patients who are in pain will require considerable comforting and various treatment modalities to alleviate discomfort during dental procedures: Comfort Needs patients. Other patients though they may be in pain, are more concerned with how the treatment offered will affect their appearance. They may desire and request procedures which enhance their appearance even though the procedures are not dentally essential: Esthetic Needs patients. Still other patients whose main concerns are for dental services which will restore or retain their oral functioning can be found in a dental practice: Function Needs patients. These are only three of the many types of dental patients dentists work with in a one-to-one, face-to-face relationship on an ongoing daily basis.

The problem presented for the research design of this study

was how to classify patients into three major catagories: Comfort Needs patients, Esthetic Needs patients and Function Needs patients. The hypothesis of this study is that as each dental patient is identified with specific needs, the dentist responds to these needs thus establishing the foundation for a relationship. The ensuing relationship is constructed and maintained through the dialogue the dentist and patient share during the course of treatment and the satisfaction of the patient's dental needs in the kinds of services rendered. Therefore, an examination of the utilization of dental procedures by patient types and a look at the contents of the dentist-patient discourse during chairtime are necessary components of the research design. A questionnaire was developed and used to classify patient types, dental charts were screened for services rendered and audio-taped conversations were analyzed for the effects of the content material on the dentist-patient relationship.

SAMPLE:

The research design to implement the goals of this study was used in a dental quality assurance study conducted by the Lutheran Medical Center. This study was sponsored by the American Fund for Dental Health, the research unit of the American Dental Association and funded by W.K. Kellogg Foundation. It drew voluntary participa-

tion from 600 patients in twenty-one dental offices. The selection of the dental practitioners and their patients was effected in response to mailings and other marketing strategies such as ads in dental journals and presentations at dental society meetings. Each participating dentist was asked to submit a list of one hundred patients. A letter outlining the design of the study and its objectives asking for voluntary participation was sent to each patient. The final patient population for the initial clinical audit of 306 was assembled from those patients indicating a willingness to participate. Each of these patients has a history of not less than five years experience of dental procedures with the dentist they registered with. Of the 306 patients audited, only 276 patients qualified as useful for the work pertinent to this study. The patients ranged in age from nine years old to over sixty years of age. The twenty-one dentists were general practitioners recruited from Westchester County, Nassau and Suffolk Counties and the five boroughs of New York City. The dentists ranged in age from thirty-five to over sixty years of age and had been in a solo practice for five years or more.

DATA COLLECTION:

Every patient completed a registration form (see appendix) on the day of the clinical audit which gathered demographic information.

The clinical examination conducted by an outside dentist surveyed the present status of the patient's oral health, the adequacy of the clinical record and the technical competence of the participating dentist. The patient was also asked to complete a questionnaire (see appendix) which collected information on the degree of impact made by oral dysfunctioning on everyday life and the patient's satisfaction with the dentist. Information was also collected from the patient's dental record which included number of visits, type of dental procedure and any prescriptions given by the dentist for the five years previous to the clinical audit. Only one dentist volunteered to record on audio-tape conversations occurring during treatment between the dentist and the patients participating in the study. Unfortunately, only four patients agreed to have their chairtime conversations recorded. Therefore, only four verbal transcripts are available for analysis. The decision to use the four transcripts was based on the assumption that any findings could lay the groundwork for future research by identifying possible areas for study.

INSTRUMENTS:

Two instruments were used to collect information on each patient, a Patient Registration form and an Oral Disability Index. These instruments are included in the appendix. The Patient

Registration form asks for the patient's name and address and other demographic data such as date of birth, sex, family income, years of education, occupation and method of payment.

The Oral Disability Index (ODI) is an instrument which asks the respondent to examine certain areas of life and assess the degree of impact dental problems have made, if any. The first and second page of this survey contain thirteen questions which are rated from None At All to A Great Deal on a scale of 1 to 6. The third page asks for time lost from certain activities due to dental problems. All of the questions are structured to fit one of three dimensions, comfort, function and esthetics based on the assumption that individuals who seek dental care do so because they are in pain, are not able to function or are concerned with appearance. It was anticipated that the responses to the Oral Disability Index would show up differences significant enough to classify patients according to their perceived needs. The Patient Satisfaction questions on the last page is a compilation of items used in several instruments.

I have relied heavily on the work done in the development of health status instruments by medical research teams for the construction of an oral disability survey that could begin to look at dental problems in a different way. Several health status measures have

proved very helpful in my attempt to devise a survey which will gather information on patient views of dental dysfunctioning. The medical indices of patient functioning which have been developed classify functioning in terms of the individual's ability to perform everyday activities. The Activities of Daily Living Index (Katz 1970) makes an assessment of an individual utilizing a professional or trained observer. The Health Status Index (Bush et al 1972) views health as "a composite of an individual's level of function at a point in time and his expected transition to other levels, more or less favorable at future times." This Index uses a functional/dysfunctional approach to measure the daily activities of living and draws on the values of society in determining the standards for optimal physical and mental functioning. The Sickness Impact Profile (Bergner et al 1976) makes an evaluation of behaviorial dysfunction in everyday activities and is based on the assumption that sickness is a definition imposed by laypersons or the individual himself. As such the individual experiences the impacts of the sick role whether or not he/she seeks medical care. It is when the individual enters the medical care process that his/her sickness may be defined as disease by the health care provider and labeled a patient. Whether he/she seeks medical intervention or not, it is the individual's

perception of the impacts of sickness that are the basis for this health status measure. The SIP looks at fourteen categories of everyday activities and asks the respondent to react to 235 items on the basis of how the respondent feels at the time the SIP is administered. The reported findings on the correlations between clinical assessments of dysfunction, the Index of Activities of Daily Living and the Sickness Impact Profile indicated significant relationships between them (Bergner 1976).

In developing an instrument that would measure the impact of dental problems in an individual's life, I have made two basic assumptions. One, that there are indeed dental problems as perceived by an individual that have bearing on various aspects of daily living. Two, that individuals experiencing these problems do not necessarily define themselves as sick nor do they take on the sick role when their oral problems are diagnosed as dental disease. Drawing from my dental experience and my knowledge of the social world, I have selected five categories from the fourteen categories used in the SIP instrument which I felt were most likely to be areas in which individuals would perceive oral problems as dysfunctional. These five categories are: work, home and school activities; social interaction; diet and eating habits; communication; and sleep and rest activities. In an attempt

to probe further the extent disability might have on normal functioning, restricted activity days were incorporated (adapted from the National Health Interview Study, Rands Health Insurance Study 1979). To complete the instrument, questions on patient satisfaction were included. These questions were selected and/or adapted from existing patient satisfaction indices (Ware 1979, Weinstein 1971, Sunset Park Dental Clinic 1979, and Montana Dental Association 1979).

METHODOLOGY:

The Oral Disability Index has been constructed along three dimensions, Comfort, Esthetic and Function. Respondents can be classified in one of three classifications of needs perceptions:

1. Perceptions of Comfort: individuals who seek dental care only when they are in pain, usually a crisis situation. This category includes the individual who chooses a dentist because he promises painless procedures. It includes the individual who fears pain, and/or is motivated by fear to avoid future pain. It also includes the individual who seeks a highly supportive dentist. Although the individual in this classification may lack function and/or is concerned about esthetics, the overriding motivation is the alleviation or avoidance of pain or concern with support.

2. Perceptions of Esthetics: individuals who seek dental care

because of a concern about appearance; losing teeth may signify unattractiveness; or are unhappy with present appearance of teeth.

3. Perceptions of Function: individuals who seek dental care because of an inability to use their oral apparatus or who want to preserve what function they presently have.

Only two of these classifications, Perceptions of Comfort and Perceptions of Esthetics are examined in this study. Perceptions of Function will be explored in a future study. It is apparent that there maybe overlapping of concerns in each of these classifications, but I suggest there is solid evidence that each group of patient type feels strong enough about its main concerns to be distinguishable.

Two indices were constructed, a Pain Index and an Esthetic Index. Each index includes the four impact questions that relate to its dimension. An overall Index score was derived by averaging the responses to the four items. An Index score of less than three is recoded as low and scores above three read as High. Patients who score High on the Pain Index are clasified as Comfort Needs patients, and are expected to utilize more frequent emergency visits, show a higher rate of extractions, a higher rate of removable prosthodontics and a higher utilization of prescriptions for pain.

Patients who score High on the Esthetic Index are classified as Esthetic Needs patients. It is anticipated that Esthetic Needs patients will exhibit a higher rate of utilization of crown and bridge procedures, increased frequency of prophys and a decreased amount of extractions with more endodontic services.

After the two indices were compiled, it was found that fifty two (52) respondents appeared on both indices. To eliminate the problem of double counting individuals, it was decided to place those individuals who scored higher on one index than the other in that index with the higher score. This decision was based on the assumption that though these patients were extremely sensitive to both pain and esthetic concerns, their responses indicated a more intense preoccupation with one dimension over the other.

The Chi Square Statistic was used to compare the Highs on the Pain and Esthetic Index with the Highs of the group appearing on both indices to determine if the relationship between them was similiar. The Chi Square Statistic and the Chi Square distribution was compared at a significance level of .05. The conclusions warranted combining the two groups.

The decision to combine the two groups had the result of adding sixteen individuals to the Esthetic Index and twenty eight

individuals to the Pain Index. Eight individuals were dropped from both indices because they had identical scores on both indices. The revised Pain and Esthetic Indices produced ninety two (92) pain-oriented individuals and theity-nine (39) esthetic-oriented individuals for analysis. Individuals classified as High on the Pain Index will be known as Comfort Needs patients and individuals classified as High on the Esthetic Index will be known as Esthetic Needs patients.

Utilization Rates:

A retrospective analysis was performed of the services provided by the dentist for the five years prior to the clinical audit. Comfort Needs patients and Esthetic Needs patients use dental services at varying rates.

Socioeconomic Status:

An examination of the demographic information collected on each patient provided a profile of each group, Comfort Needs patients and Esthetic Needs patients, identified. The patient characteristics of age, gender, education, family income and method of payment were analyzed for each patient type. It was expected that Comfort Needs patients and Esthetic Needs patients would differ in their level of family income and education, with Esthetic Needs patients showing a higher level of family income and education. Social class variables

may predict the likelihood of a patient being identified as a Comfort Needs patient or an Esthetic Needs patient.

Conversational Activity:

Audio-taped sessions of conversations between the dentist and the patient from randomly selected patients identified as Comfort Needs patients and Esthetic Needs patients are examined. The dentist who volunteered to record these conversations was given a list of randomly selected patients and asked to record conversations with them. The dentist was not informed of the patient's classification, only that they were patients from the office who participated in the study. The content of the conversation was examined for remarks that are directly and indirectly oriented to pain or esthetics as heard by me as a member of this society. Words directly or indirectly related to pain denote suffering, embarrassment, physical discomfort and/or provide comfort or relief from pain. Words related to esthetics denote a concern with physical appearance or image, how one appears to oneself or to others. It is expected that Comfort Needs patients and Esthetic Needs patients and their dentist use certain patterns of conversation to reveal their orientation and maintain a satisfying relationship. The talk that occurs in the dental chair between the dentist and the patient is meaningful and not trivial.

CHAPTER 5

FINDINGS: CHARACTERISTICS OF DENTAL PATIENT TYPES

Studies suggest dental patients do not share the same perceptions and expectations of dentists' behavior. Some patients link negative reactions to dentistry with a personal dislike of their dentist (Kleinknecht, Klepac and Alexander 1973); other patients focus their dissatisfaction on the cost of dental care (Strauss, Lindahl and Barksdale 1983); still others disliked having a dentist start treatment without explanations (Rankin and Harris 1984). Strauss et al (1983) report patients cited the four most important factors for evaluating the dentist's performance as alleviation of pain, technical quality, care and respect for the patient and appearance of treatment.

Dentists also vary in their perceptions of the good dental patient. The good patient presents no obstacle to providing care and permits the dentist to work at optimal levels of quality (Weinstein, Milgrom, Ratner, Rand, Morrison 1978). The most disliked dental patient is the patient who does not hide fear or anxiety (Martin 1965). Patient behaviors such as grabbing the dentist's

hand, criticizing or questioning the dentist's performance are seen as personal assaults (Corah, O'Shea and Skeels 1982). The patient's poor oral hygiene is seen as a devaluation of oral health and the dental practitioner's own worth (Corah et al 1982).

The satisfactory dentist-patient relationship appears to be associated with a mutual selection process (Ayer 1981) by dentists and patients of similiar backgrounds and values. It may be the result of patients acting on their preferences and changing dentists when they are dissatisfied (Collett 1969). I propose, however, that the successful dentist is sensitive to the needs and preferences of the dental patient and responds in ways that insure a comfortable and positive dental experience. When the dentist recognizes and reacts to the psychological and dental needs of each dental patient type, a working alliance is initiated. A working alliance described as an environment in which the patient is encouraged to participate actively (Wittemann 1977) leads to a dentist-patient interaction that is effective.

The patients in this study have expressed satisfaction with the dental work and the performance of the dentist as evidenced by the overwhelming positive responses to the Patient Satisfaction questionnaire. The twenty-one dentists participating in this survey have

maintained relationships with these patients of five or more years' duration implying a satisfactory level of comptibility. It is the hypothesis of this research that these dental practitioners have learned to assess the personal and dental needs of the patient by recognizing and responding to different patient types.

Patients coming through a dental practice exhibit certain requirement which the dentist recognizes. These requirements may be verbalized or demonstrated by some form of behavior. The patient may ask "Does the dentist offer local anesthesia or laughing gas (nitrous oxide)?". "Is the dentist a concerned or supportive professional?" These clues and anxious behavior may indicate to the dentist a patient whose primary need is for comfort, support and alleviation of pain: a Comfort Needs patient.

The patient who seeks dental care to correct or improve his or her oral appearance may also be concerned about an attractive dental environment or the level of the skill the dental professional practices. "Do you do cosmetic dentistry, bonding, crowns?" "How can I whiten my teeth?" Questions of this nature may prompt the dentist to recognize that this patient has esthetic needs of utmost concern: an Esthetic Needs patient.

The survey questionnaire submitted by 276 patients form the

data base the analysis in this study draws on. This sample population is predominately white with a mean age of 38.3 years. 51.1% of this sample is between the ages of 31 to 59; 15.9% is over 59 years of age, with 34.4% over 50 years of age (see Table #4:4). Females outnumber males six to four. Between the ages of 31 to 50, the ratio drops to one female to one male. More than 50% of the population has had some college education; the mean number of years of schooling is 14.3 years. Though 42.5% of the families reported an income of $20,000. to $34,999., 67.5% of the sample reported family incomes of $20,000. and over (see Table #5:11). The sample was evenly divided between using some form of dental insurance and/or self-payment as a method of paying dental bills. It should be noted that this sample is a self-selected group who have a long-standing relationship with their dentist and as such it is not possible to compare findings from this group with a group of patients who do not have a dentist. However, it can be assumed that this sample represents the typical patient population of the average dentist engaged in private practice in the metropolitan New York area. As such the private dental practitioner treats a patient population which differs from the average metropolitan New York population in some significant ways. As the following analysis demonstrates, this sample has patients who are

predominately female, older, better educated and with a higher level of income than the general population of New York City and the metropolitan area.

The Oral Disability Index was developed to identify the primary oral concerns of patients and is used in this study to classify respondents into two dental patient types, the Comfort Needs patient or the Esthetic Needs patient. Ninety two (33 1/3%) of the total patient sample (276) were identified as Comfort Needs patients. Thirty nine (14.1%) were classified as Esthetic Needs patients.

Table #5:1 shows the percent distribution of patients identified as Comfort Needs patients or Esthetic Needs patients in each of the twenty one dental offices participating in this study. According to this table patients are more likely to be classified as Comfort Needs patients than Esthetic Needs patients. The average percent of Comfort Needs patients per dental office was 32.9%. Only three dental offices had no Esthetic Needs patients (office #4, #18 and #19). 52.0% of the dental offices evidenced more than one third of their participating patients as Comfort Needs patients. Four (19%) dental offices had as many Comfort Needs patients as they had Esthetic Needs patients. Three dental offices (#8, #12 and #13) had percentages of Esthetic Needs patients greater than their percentage

TABLE #5:1

CATEGORIES OF DENTAL PATIENTS
BY DENTAL OFFICE

Dental Office #	Patients in study	%Comfort Needs Pts.	% Esthetic Needs Pts.
1	19	36.8	5.2
2	20	30.0	5.0
3	17	41.1	17.6
4	9	33.3	0.0
5	11	18.0	18.0
6	12	33.3	8.3
7	14	28.5	14.2
8	10	10.0	30.0
9	9	33.3	33.3
10	10	30.0	10.0
11	17	52.9	11.7
12	13	15.3	23.0
13	13	25.0	38.4
14	6	66.6	16.6
15	17	41.1	11.7
16	14	35.7	14.2
17	10	20.0	20.0
18	12	50.0	0.0
19	21	28.5	0.0
20	11	36.3	18.0
21	11	27.2	27.2
% of Total Patient Sample		33.3	14.1
	(276)	(92)	(39)

of Comfort Needs patients. These findings indicate that although most dental practices consist of both types of dental patients, dentists tend to accommodate one dental patient type more than the other. Seventeen (80%) dental offices had more of one dental patient type than the other.

Patient Characteristics:

Various social demographic characteristics define all patient populations. This study chose to use gender, age, education, income and method of payment as independent variables for three reasons:

1. to present a profile of each dental patient type: Comfort Needs and Esthetic Needs.
2. to ascertain whether there are significant differences between dental patient types.
3. to determine whether any or all of these characteristics can predict the likelihood of a dental patient being classified as a Comfort Needs patient or an Esthetic Needs patient.

Gender:

Certain expectations exist in our culture in regard to gender which may influence the perception dentists have about patients. One is that females are more sensitive and more easily hurt, therefore they are permitted to express feelings of pain and discomfort.

Females are also expected to be more concerned about appearance. In working with patients, dentists are more apt to suspect comfort and esthetic needs in females than in males. Knowledge about the gender composition of Comfort Needs patients and Esthetic Needs patients can hope to balance the expectations of dental professionals in meeting the needs of patients.

Table #5:2 looks at the distribution of dental patients according to gender. It indicates that 2/3 of the dental patients in this sample are females. The ratio of more females to males is reflected in both Comfort Needs and Esthetic Needs patient groups. Comfort Needs females comprise 71.7% of this group while males account for 28.3%. Females classified as Esthetic Needs make up 69.2% and males show up as 30.8%. It would appear that males who do admit to concerns about pain are more moderate about expressing them than females. Females are much more willing to express their concerns about pain and discomfort and to seek help. This finding reflects the characteristic socialization pattern of gender roles in American society. Males are discouraged from showing pain or discomfort especially in the presence of an authority figure (in this case the dental practitioner). Males also view asking for or needing help as weakness. Females as the culturally defined weaker sex demonstrate their

freedom to show pain and discomfort and also to ask for and to seek help particularly from an authority figure.

TABLE #5:2

CATEGORIES OF DENTAL PATIENTS
BY GENDER

	All Patients		Comfort		Esthetic	
Males	39.9	(110)	28.3	(26)	30.8	(12)
Females	60.1	(166)	71.7	(66)	69.2	(27)
		(276)		(92)		(39)

Chi square calculations indicate significance at .05 in comparing all dental patients to the Comfort Needs patient and Esthetic Needs patients.

Table #5:3 compares the percent gender composition of Comfort Needs and Esthetic Needs patients. There seems to be no significant difference in the composition of males and females between the two categories of patients. Chi square calculations confirm there is no significance at .05 level. Comfort Needs patients command a higher percentage of males and females than Esthetic Needs patients. When males in both categories are compared, males are just as likely to be Comfort Needs patients as females. This finding indicates males and females have similiar amounts of comfort needs. We can conclude that

gender is not a factor in a patient's perceptions of comfort or esthetic conerns impacting on their lives.

TABLE #5:3

COMPARISON OF DENTAL PATIENT TYPES
BY GENDER

	Male		Female	
Comfort Needs	68.4	(26)	71.0	(66)
Esthetic Needs	31.6	(12)	29.0	(27)
		(38)		(93)

Age:

Age has a specific relevence in this study because it directly influences the kinds of services the dentist renders and indirectly the manner in which these services are performed. Age as an independent variable is expected to reveal considerable information about each dental patient type. The following age categories were created because of certain phenomenona specific to each group. Each age group presents the dentist with a set of problems, both dental and personal which must be addressed so a working alliance can be forged.

Under 18: Events specific to this age group include: the erupting of permanent teeth; entering the school system involving freedom from constant parental supervision

over diet; exposure to peer pressure and peer's diet habits. These are also the years when decisions about dental visits and necessary dental work are made and enforced by parents.

18 - 30: Young adult years bring on complete freedom from parents and added stress due to: college, entering workplace, locating self in social world. Making and keeping dental appointments become one's own responsibility.

31 - 50: Adult years are marked by stress: establishing a career, beginning a family; maintaining balance between growing family, career and social life. Dental visits may be preventive or crisis-oriented depending on priority that is set by individual.

51 - 59: Mid-life: resolutions about careers have been made; family obligations may be strong with children in college; aging parents to care for. Retirement may be in the near future; children may be leaving home. Most likely, visits to the dentist are a routine part of the health care regimen.

60 and over: Retirement years: coping with advancing age; losses

may involve job, spouse, friends and/or health. Dental health may or may not be a low priority. Transportation, illness may hinder visits to the dentist. Fixed income may be a factor in deciding dental procedures to be done.

TABLE #5:4

CATEGORIES OF DENTAL PATIENTS
BY AGE

	All Patients		Comfort		Esthetic	
Under 18	12.9	(35)	13.3	(12)	17.9	(7)
18 - 30	18.4	(50)	18.9	(17)	25.6	(10)
31 - 50	33.1	(90)	33.3	(30)	43.6	(17)
51 - 59	18.6	(51)	21.1	(19)	10.3	(4)
60 and Over	16.9	(46)	13.3	(12)	2.6	(1)
		(272)		(90)		(39)

Table #5:4 examines the influence of age on experience with pain and esthetics of patients in the study. This table shows that the greater percent of patients in the study are in the 31 - 50 age category (33.1%) followed by patients 51-59 (18.6%), 18-30 (18.4%), 60 and over (16.9%) and those patients under 18 (12.9%). The age breakdown of Comfort Needs patients follows a similiar pattern with the exception of the under 18 (13.3%) and over 60 (13.3%) which form the tails of a bell curve. The greatest impact pain makes on the Comfort Needs

patient occurs in the 13-50 age group following at 18.9%.

There are a number of sociological factors which help to explain what these age groups rank themselves in such a manner. One would expect to find individuals 31 to 50 years of age ranking high in comfort concerns because these years are stressful, fraught with problem-solving situations: coping with family events, career moves, failures and successes. The high sensitivity to discomfort at age 51 to 59 for both males and females (see Table #5:5) can be attributed to a number of reasons. For females, the loss of familiar roles; children leaving homes, a decrease of active involvement in nurturing situations, adjusting to spouses who are retiring, ill or lost through death; for males, similiar concerns about retirement and family changes, bring about added stress and increased vulnerability to pain and discomfort. These crisis situations may cause Comfort Needs persons to increase their level of comfort and support requirements. These requirements decrease as adjustments to accommodate new life situations are made in later years.

The percent composition of Comfort Needs patients shows both categories, those under 18 (13.3%) and those over 60 (13.3%) to be at the low end of the range. One might expect an increase in concerns with comfort and pain in the aging patient whose oral health declines

with neglect and the influence of the chronic illnesses of age. However, the older patients in this survey have had maintenance dental care over a long period of time, at least five years, so that oral problems are minimal. The impact of sustained dental care over time is reflected in the substantial decrease in the number of persons 60 and over who report concerns with pain impacting on their lives.

Among patients identified as Esthetic Needs, the highest concern with esthetics occurs in the 31-50 age group (43.6%) followed by the 18 to 30 age group (25.6%) and individuals under 18 years of age (17.9%). Esthetic needs for patients over 50 years of age declines to 10.3% and 2.6% for those 60 years and older. These statistics correlate well with American cultural values of esthetics. Eighteen to fifty are years of the greatest involvement in the workplace and in other social arenas. Individuals under eighteen years of age are also concerned with esthetics as they are sensitive during these formative years to how their developing image appears to others.

When the age categories of dental patient types are collasped into early years under 30, middle years 31-50, and later years 51 and over, some of the fine distinctions are lost between the age groups. However, the relationship between the sample population and the Comfort Needs and Esthetic Needs patient becomes clearer. Comfort

Needs patients follow very closely the pattern set by the sample. Esthetic Needs patients deviate with a sharp drop in percentages in the 51 and over group (12.9%). (see Table #5:5).

TABLE #5:5

DENTAL PATIENT TYPES
ACCORDING TO AGE

	All Patients		Comfort		Esthetic	
Under 30	31.3	(85)	32.2	(29)	43.6	(17)
31 - 50	33.3	(90)	33.3	(30)	43.6	(17)
51 and Over	35.5	(97)	34.4	(31)	12.8	(5)
		(272)		(90)		(39)

Blurring of the distinctions between categories into more general classifications of early, middle and later years brings the age finding closer to our expectations for these dental patient types. Comfort Needs patients are older (86.1%) and Esthetic Needs patients are younger (13.9%) as Table #5:6 indicates.

TABLE #5:6

COMPARISON OF DENTAL PATIENT TYPES
BY AGE

	Under 30		31-50		51 and Over	
Comfort Needs	63.0	(29)	63.8	(30)	86.1	(31)
Esthetic Needs	37.0	(17)	36.2	(17)	13.9	(5)
		(46)		(47)		(36)

Education:

Members of this society commonly assume that individuals with education have the ability to work well with others and to establish long-term relationships with common goals and interests. Patients with high levels of schooling often share the same social and cultural background as dental practitioners (Ayer 1981). Thus education may be a factor which influences the longevity of the dentist-patient relationship. Education may also be a factor in whether pain or esthetics is a patient's primary concern. Table #5:7 reports the effect of education on the perceived impact of pain and esthetics by dental patient types.

TABLE #5:7

CATEGORIES OF DENTAL PATIENTS
BY EDUCATION

	All Patients		Comfort		Esthetic	
Less than high school. . .	18.9	(51)	23.6	(21)	18.0	(7)
High school.	18.1	(49)	15.4	(14)	12.8	(5)
College	63.0	(170)	60.9	(56)	69.2	(27)
		(270)		(91)		(39)

The majority of dental patients in this sample (63.0%) have has some college education. The rest of the sample divide themselves

among those with high school (18.1%) and those with less than high school (18.9%). Comfort Needs patients and Esthetic Needs patients conform to the majority of patients in the college group, 61.5% and 69.2% respectively. However, they differ from the sample in how they stratify patients with less than a high school educaion and those with high school. Comfort Needs patient report 23.6% have less than high school and 15.4% have high school. Esthetic Needs patients report 18.0% have less than high school and 12.8% have had a high school education. To examine the question as to why Comfort Needs patients deviate from the sample in how they rank patients with less than high schook, Table #5:8 was constructed. It shows the distribution of the various age categories of Comfort Needs patients according to the level of education as reported by them. It gives a clearer picture of the Comfort Needs patient as related to age and education. The Comfort Needs patient who reports an educational level of less than high school may be reflecting a generational influence due to age. 57.1% of those patients with less than high school are under 18 years of age which is not surprising as this is in keeping with school attendance behavior at that age. What is not clear at first is the large number of Comfort Needs patients 51 years and over reporting less than high school, 42.9%. For patients 51 years and

over, a high school education was not as widespread an expectation in their adolescent years as it is at present. These patients were more likely to go into the workforce at an early age. Females were more likely to marry than to complete a high school education. Note the lower percentage of patients 51 and over who report a college education (21.9%). The higher level of post-secondary education among Comfort Needs patients in age categories 18-30, 29.0% and 31-50, 49.1% supports this assumption.

TABLE #5:8

COMFORT NEEDS PATIENTS
AGE BY EDUCATION

	Less than H.S.		High School		College	
Under 18.	57.1	(12)	0.0		0.0	
18-30	0.0		7.7	(1)	29.0	(16)
31-50	0.0		15.4	(2)	49.1	(27)
51 and Over	42.9	(9)	76.9	(10)	21.9	(12)
		(21)		(13)		(55)

According to Table #5:9 the concern with esthetics is higher among college-educated patients because they are more likely to be eighteen to fifty years of age when appearance is a primary concern. 37.0% of Esthetic Needs patients reporting a college education were 18 to 30 years of age; 48.2% were 31 to 50 years of age and 14.8% were

51 years or older. Among Esthetic Needs patients reporting less than a high school education, 83.3% were under 18, 16.6% were 31 to 50 and 16.6% were over 50 years of age. The Chi Square statistic for both Tables #5:8 and #5:9 were significant at a given level of .05. When Comfort Needs patients and Esthetic Needs patients are compared (note Table #5:10), Comfort Needs patients are more likely to have less education (high school or less 74.5%) than Esthetic Needs patients (college 32.5% high).

TABLE #5:9

ESTHETIC NEEDS PATIENTS
AGE BY EDUCATION

	Less than H.S.		High School		College	
Under 18	83.3	(5)	40.0	(2)	0.0	
18-30	0.0		0.0		37.0	(10)
31-50	16.6	(1)	60.0	(3)	48.2	(13)
51 and Over.	16.6	(1)	0.0		14.8	(3)
	(6)		(5)		(27)	

The likelihood prevails that an increase in the years of education alerts individuals to greater concerns with pain and esthetic needs. However, it can be asserted that Comfort Needs patients have less education than Esthetic Needs patients.

TABLE #5:10

COMPARISON OF DENTAL PATIENT TYPES
EDUCATION

	High School and Under		College	
Comfort Needs	74.5	(35)	67.5	(56)
Esthetic Needs	25.5	(12)	32.5	(27)
		(47)		(83)

Income:

Of all the patients in this sample 42.5% report family income between $20,000. and $34,999., followed by patients with income under $20,000. (32.5%) and patients who have incomes of over $35,000. (see Table #5:11). The patterns which the Comfort Needs and Esthetic Needs patients present differ both from the sample and from each other.

TABLE # 5:11

CATEGORIES OF DENTAL PATIENTS
BY INCOME

Level of Income	All Patients		Comfort		Esthetic	
Under $20,000.	32.5	(78)	42.4	(36)	12.9	(4)
$20,000 to $34,999. . .	42.5	(102)	30.6	(26)	45.2	(14)
$35,000. and Over . . .	25.0	(60)	27.1	(23)	41.9	(13)
		(240)		(85)		(31)

Table #5:11 indicates that the majority of Comfort Needs patients have incomes under $20,000 (42.4%) followed by those who make $20,000 to $34,999. (30.6%) and 27.1% who make $35,000. and over. The level of concern with esthetics increases as family income becomes greater. Esthetic patients who have family incomes of $20,000 to $34,999 rank high at 45.2% with those who report $35,00 and over slightly lower at 41.9%. Very few Esthetic Needs patients report incomes under $20,000, only 12.9%. Chi Square calculations indicate significance at a level of .05.

TABLE #5:12

COMPARISON OF DENTAL PATIENT TYPES
BY INCOME

	Under $20,000		$20,000-$34,999		$35,000 +	
Comfort Needs	90.0	(36)	65.0	(26)	63.9	(23)
Esthetic Needs. . . .	10.0	(4)	35.0	(14)	36.1	(13)
		(40)		(40)		(36)

Comfort Needs patients appear to have lower family incomes: under $40,000, 90.0% and Esthetic Needs patients emerge slightly richer: over $35,000, 36.1% as Table #5:12 attests.

Table #5:13 correlates higher levels of education with higher levels of family income. Patients in the sample with the most

education fall into the higher income categories, $20,000-$34,999 (29.2%) and $35,000 and over (20.0%). Esthetic patients follow the sample's lead with 32.3% in both income groups. Comfort Needs patients have a substantial number of patient with high school or less who report family incomes of under $20,000 (20.0%) while college-educated Comfort Needs patients spread themselves evenly among the three levels of income: Under $20,000 (22.3%); $20,000-$34,999, 20.0% and those who report family incomes of $35,000 or more 21.2%.

TABLE #5:13

CATEGORIES OF DENTAL PATIENTS
EDUCATION BY INCOME

	All Patients		Comfort		Esthetic	
High School and Under:						
Under $20,000. . .	14.6	(35)	20.0	(17)	0.0	
$20,000-$34,999. .	14.2	(34)	10.6	(9)	16.1	(5)
$35,000 and over .	5.0	(12)	5.9	(5)	6.5	(2)
College:						
Under $20,000. . .	17.1	(41)	22.3	(19)	12.9	(4)
$20,000-$34,999. .	29.2	(70)	20.0	(17)	32.3	(10)
$35,000 and over .	20.0	(48)	21.2	(18)	32.3	(10)
		(240)		(85)		(31)

These findings confirm our hypothesis that family income influences concerns about pain and esthetics. The higher the family

income the more likely an individual is to have a higher level of education and the more likely one is to appear on the Esthetic Index. The less educated tend to have a lower family income and to be classified as Comfort Needs patients. In an effort to clarify which of the two variables, education or income is the significant causal variables, several tables were constructed. Table #5:13A combines the data presented in Table #5:11 and Table #5:13 to simplify the data for replication efforts.

TABLE #5:13A

DENTAL PATIENT TYPES
EDUCATION/INCOME

	Education				Income			
	High School and Under		College and Over		Under $35,000		$35,000 and Over	
Comfort . . .	74.0	(35)	68.0	(56)	77.0	(62)	64.0	(23)
Esthetic . . .	26.0	(12)	32.0	(27)	23.0	(18)	36.0	(13)
		(47)		(83)		(80)		(36)

Replication of the above data as shown in Table #13B shows relatively little change in the results. These results extend a clear message: both education and income contribute to the reported findings. We can conclude that social class is functioning. Comfort patient types

are more lower class and Esthetic patient types are more middle class.

TABLE #5:13B

COMFORT PATIENT TYPES
EDUCATION/INCOME

Income	High School and Under	College and Over	Total from Table #5:13A
Under $35,000 . . .	26/31 = 84.0	36/50 = 72.0	77.0
$35,000 and over. .	5/7 = 71.0	18/28 = 64.0	64.0
Total from Table #5:13A . . .	74.0	68.0	

(These figures represent Comfort/Comfort + Esthetic = 26/31, see Babbi 1975, Chapter 17.)

Method of Payment:

Table #5:14 which examines the way in which dental patients in this study pay their dental bills indicates there is no significant difference between patients who pay their own bills out-of-pocket and those who have dental insurance or a combination of both. It is concluded therefore, how patients pay their dental bill does not affect how patients view their dental problems or the kinds of treatment they opt for.

Summary:

Twenty-one dental offices were surveyed using the Oral Disability Index administered to 276 patients. The findings reported here

TABLE #5:14

CATEGORIES OF DENTAL PATIENTS
METHOD OF PAYMENT

	All Patients		Comfort		Esthetic	
Dental Insurance . . .	50.4	(133)	48.8	(41)	51.4	(18)
Self-Payment	49.6	(131)	51.2	(43)	48.6	(17)
		(264)		(84)		(35)

on the characteristics of the dental patient in this study suggest that at least two distinct dental patient types can be found in a dental office: Comfort Needs patients and Esthetic Needs patients. Ninety-two Comfort Needs patients were identified and thirty-nine Esthetic Needs patients. Every dental office had some Comfort Needs patients though some offices did not identify Esthetic Needs patients. It appears dental patients are more likely to be Comfort Needs patients than Esthetic Needs patients.

Table #5:15 details a profile of the dental patients in this survey. The typical dental patient is female, 38.3 years of age, has 14.3 years of education and reports a family income of $20,000 to $34,999. The average Comfort Needs patient is most likely female, is over 51 years of age, has a high school or less education level and reports a family income of under $20,000. The average Esthetic

Needs patient is also most likely female, between 31-50 years of age, has a college background and a family income of $35,000 and over. It is concluded that Comfort Needs patients are older, less educated and have a lower family income than Esthetic Needs patients who are younger, highly educated and have a high family income.

TABLE #5:15

PROFILE OF DENTAL PATIENTS

	Typical Patient	Comfort Needs	Esthetic Needs
Gender:	Female	Female	Female
Age:	38.3	51 and older	31 - 50
Education:	14.3 years	High school or less	College +
Income:	$20,000-$34,999	Under $20,000	$35,000 +

The characteristics of gender, age, education and income along with other visual and audio cues leads the dentist to recognize and classify patients into distinct social types; Comfort Needs and Esthetic Needs patients. The characteristic differences between social patient types guides the dentist when interviewing patients, during chairside conversations, in the kinds of dental procedures offered and the manner in which treatment is rendered. In the next chapter, the utilization of dental services by dental patients will be discussed to further substantiate these conclusions.

CHAPTER 6

FINDINGS: UTILIZATION OF DENTAL SERVICES BY DENTAL PATIENT TYPES

The maximum utilization of dental services is of primary concern for dental practitioners and dental researchers for various reasons. Dental providers gauge their financial success and personal esteem by the acceptance of their services by the public. Researchers examine the utilization of dental resources to better understand patients' dental habits (Goulding 1965), attitudes towards the dental profession (Friedson and Feldman 1958) and patient satisfaction or dissatisfaction (Jenny and Frazer 1973). The minimal use of dental services has been attributed to low priority placed on oral health and access to dental care (Strauss 1976). In surveying low income families, Frazier (1977) found an incongruity between the low priority the dentists believed the patient placed on dental services and the high priority these patients reported. It is the dentist's perception of how patients value their dental care which influences the quantity and quality of the dental services provided (Weinstein 1978).

This chapter will examine the utilization of dental services by patients who have been identified as specific dental patient types,

Comfort Needs patients and Esthetic Needs patients. Retrospective date covering a period of five years was collected on all patients (276) who participated in this study. Table #6:1 summaries the utilization of all dental services by the twenty-one dental offices surveyed according to specific age categories.

TABLE #6-1

PERCENT PROFILE OF DENTAL SERVICES
ACCORDING TO AGE - ALL DENTAL OFFICES

Dental Service	Under 12	13-25	26-59	60+	Total
Diagnosis	29.33	19.98	11.66	10.93	13.08
Preventive	19.96	10.60	5.26	5.16	6.34
Restorative	38.05	51.57	42.04	38.28	42.35
Endodontics	5.81	9.11	10.97	10.95	10.58
Periodontics	.0	4.01	6.90	6.25	6.22
Prosthetics (fixed)	.0	1.46	10.38	17.06	16.19
Prosthetics (removable)	.0	.59	2.32	9.70	3.42
Oral Surgery	5.72	2.67	1.22	1.67	1.62
Orthodontics	.0	.0	.21	.0	.14
Adjunctive	1.12	.0	.04	.0	.16

N=276

The utilization of dental procedures varies with each age category and different dental procedures become more important in one age group than another. Restorative work includes amalgam and composite fillings for both permanent and deciduous teeth and gold inlay/onlay restorations. All age groups utilize restorative dental procedures as

its foremost dental service, ranging from 38.5% to 51.57% with 42.35% for the total population. Diagnosis includes an oral exam, study models and radiographs. For age groups under 12 and 13-25, diagnosis follows restorative procedures in degree of utilization. For the other age groups, 26-59 and 60+, diagnostic procedures give way to fixed prosthetics as a more utilized service. Fixed prosthedontics includes crowns, cast post and core, steel post/buildup, bridge pontic and crown and onlay abutments. These services increase during the years 26-60+ to replace teeth lost to decay and periodontal neglect over time.

Endodontics includes vital pulpotomies, root canals, apicoectomies and hemisections. For those individuals in the 60+ age group who use this service in third place, endodontics provides the opportunity to save teeth to be crowned or used as bridge abutments. Age group under 12 and 13-25 utilize preventive services before they use endodontic procedures. Preventive services include prophys, fluoride treatments, sealants and space maintainers.

Periodontic procedures include gingivectomies, curettage and scaling, flap procedures, grafts, splinting of teeth and nightguards. Age groups 13-25 and 26-59 place the utilization of this service in fifth position. The 60+ age group utilize removable prosthetic

procedures which includes full and partial dentures more often than periodontal services.

Oral surgery which includes routine extractions, extractions of erupted, soft tissue impacted and bony impacted teeth and other surgical procedures is used in this sample to a greater extent by age group under 12 and 13-25. Common surgical procedures performed during these age boundaries include third molar extractions, extractions of deciduous teeth and simple extractions of permanent teeth. In the average dental office difficult or compromising surgical procedures are routinely referred to the Oral Surgeon specialist.

This discussion of the utilization of dental services is relevent only to the sample of patients in the twenty-one dental offices who participated in this study. Table #6:2 compares the mean percent of time spent treating patients by specific dental procedures for all the dentists in this study with the mean percent of time spent by independent general practitioners as reported by the American Dental Association in the 1982 survey of dental practices. This table indicates the the division of time spent treating patients by the dentists in this study compares favorably with the norms set by the 1982 ADA Survey of Dental Practice.

The twenty-one dentists in the present study allot more of

their time to Prosthodontic procedures, 19.61%, Diagnostic, 13.08%, Endodontic, 10.58% and Periodontic services, 6.22% than the dentists in the 1982 survey who spend 16.9% at Prosthodontic procedures, 9.9% at Diagnostic work, 7.2% at Endodontic services and 4.3% at Periodontics. The present sample of dentists rank lower than the norm in

TABLE #6:2

MEAN PERCENT OF TIME TREATING PATIENTS
BY SPECIFIED DENTAL SERVICE

Type of Service	All Dentists in present study	All Dentists in 1982 survey*
Restorative	42.35	42.6
Prosthodontics (fixed and removable)	19.61	16.9
Diagnostic	13.08	9.9
Endodontic	10.58	7.2
Preventive	6.34	9.4
Periodontics	6.22	4.3
Oral Surgery	1.62	4.1
Orthodontics	.14	2.1
Adjunctive Medicine	.06	3.06
	N= 21 DDS	N= 1519 DDS

*Source: 1982 ADA Survey of Dental Practice, Table #34, pg. 47.

preventive services, 6.34%, oral surgery and orthodontic services, 1.62% and .14% respectively. The only possible reason that can account for these differences would be the different method used in each study

for collecting data. The ADA 1982 Survey of Dental Practice draws its data from the use of a questionnaire which inquires of the responding dentists what percentage of their time is devoted to treating patients. The present study collected its data from the participating patient's chart in each of the dental offices. It would appear the method used by this study renders a more accurate picture of what is going on in the dental office.

Table #6:3 details the utilization of dental procedures in the twenty-one dental offices in relative value units. The decision to use relative value units is based on the assumption that dental services are best measured in time units. Each service provided in the dental office requires on average a certain amount of time. The relative value unit developed for use in Region II of the United States Public Health Service (Rosenthal, Goldsmith, Svarcbergs 1981) translates all services into a metric of time. Each service has been assigned a precise number of units that it takes on average to complete that service. One relative value unit (RVU) equals ten minutes of a dentist's time. (107 dental services has been assigned RVUs.) By converting services to time, comparisons can be made between different services and dentists. For example, a three surface amalgam filling is equal to three RVUs or thirty minutes of a dentist's time.

Conversely, using the RVU as a unit of measurement makes it possible to calculate the amount of time a patient spends with the dental provider in the course of a specific treatment.

The RVU figures in Table #6:3 were arrived at by:

1. compiling all of the services received by each patient for the five years.
2. The number of services were converted to relative value units by multiplying by the value given for each service (Rosenthal et al 1981).
3. The total RVUs for each patient were divided by the amount of time between the first recorded visist to the dentist (the previous five years) to the date the patient filled out the survey, giving all the RVUs a common time base of one year.
4. The patients were then classified according to age groups, under 12, 13-25, 26-59 and 60+.

According to Table #6:3, the average dental patient in this sample spends 2 hours and 2 minutes in the dental chair annually. Dental patients in age group 60+ spend the most time in the dental chair, 2 hours and 20 minutes. This statistic comes as quite a surprise as it is generally assumed that elderly patients reduce their general dental needs either by financial choice or through the loss of their natural teeth. Their use of dental services appears to be

TABLE #6:3

UTILIZATION OF DENTAL SERVICES - ALL PATIENTS
AVERAGE ANNUAL RELATIVE VALUE UNITS BY AGE

Type of Service	Under 12	13-25	26-59	60+	Total
Diagnostic	1.49	1.56	1.58	1.57	1.57
Preventive	1.81	1.06	1.11	1.20	1.17
Restorative	1.72	2.58	2.41	.25	2.37
Endodontic	.27	6.8	1.36	1.42	1.17
Periodontic	.0	.37	1.59	1.57	1.25
Removable prosthetic	.0	.04	.30	1.26	.39
Fixed prosthetic	.9	1.41	5.23	4.9	4.11
Oral surgery	.25	.2	.15	.22	.18
Orthodontic	.0	.0	.03	.0	.015
Adjunct medicine	.05	.0	.004	.0	.006
Total	5.63	7.92	13.75	14.4	12.2
	(23)	(54)	(180)	(49)	(306)

amply divided among all services with the exception of orthodontic services. Age category 60+ ranks high in the use of endodontic and removable prosthetic services: the saving of natural teeth and the replacement of lost teeth with dentures (removable prosthetics 1.26 RVUs, endodontics 1.42 RVUs). This age group also utilizes very high RVUs in fixed prosthetic services, 4.9 RVUs. Dental patients age 26-59 rank first in the use of diagnostic services 1.58 RVUs, periodontics 1.59 RVUs, and fixed prosthetic services 5.23 RVUs, spending on average 2 hours and 17.5 minutes in the dental chair.

Dental patients age 13-25 use the most restorative services, 2.58 RVUs and endodontic services, 6.8 RVUs and average 1 hour and 19 minutes chairtime. Dental patients under 12 use the most preventive services, 1.81 RVUs and average 56.3 minutes in the dental chair.

Table #6:4 sets forth dental services as used by dental patient types: Comfort Needs patients and Esthetic Needs patients according to age. Among Comfort Needs patients, the age group 26-59 utilize the most dental services, spending on average one hour and 30.4 minutes in the dental chair. They lead in diagnostic service 1.75 RVUs, preventive services 1.26 RVUs, endodontic services .46 RVUs, periodontic services .67 RVUs, fixed prosthetics 1.05 RVUs and oral surgery .17 RVUs. Comfort Needs patients age 13-25 rank first with restorative services 3.65 RVUs and spend 36.5 minutes in the dental chair. Comfort Needs patients age 60+ utilize the most removable prosthetic services .44 RVUs and spend 40.4 minutes in the dental chair.

Among Esthetic Needs patients, age group 60+ spend the most time in the dental chair, 1 hour and 31.8 minutes and lead in periodontal services 1.5 RVUs, and removable prosthetic services, .7 RVUs. Esthetic Needs patients age 26-59 utilize 1 hour and 23.8 minutes and lead in fixed prosthetic services, 3.56 RVUs and oral surgery,

TABLE #6:4

UTILIZATION OF DENTAL SERVICES - DENTAL PATIENT TYPES
AVERAGE ANNUAL RELATIVE VALUE UNITS

Comfort Needs Patients

Type of Service	Under 12	13-25	26-59	60+	Total
Diagnostic	1.7	1.45	1.75	1.0	1.54
Preventive	.86	.93	1.26	.37	1.01
Restorative	2.66	3.65	3.5	2.39	3.17
Endodontic	.13	.179	.46	.15	.33
Periodontic	.0	.319	.67	.33	.50
Removable prosthetic	.0	.09	.14	.44	.16
Fixed prosthetic	.35	.35	1.05	.36	.75
Oral surgery	.0	.145	.17	.05	.13
Adjunct medicine	.0	.0	.03	.18	.04
Total	5.74	7.14	9.04	5.31	7.63
	(6)	(15)	(55)	(12)	(92)

Esthetic Needs Patients

Type of Service	Under 12	13-25	26-59	60+	Total
Diagnostic	2.3	1.22	1.31	1.7	1.3
Preventive	1.6	.77	.82	1.5	.83
Restorative	.98	3.26	.62	1.5	1.24
Endodontic	.08	1.0	.84	.0	.75
Periodontic	.0	.48	.77	1.5	.62
Removable prosthetic	.0	.0	.24	.7	.17
Fixed prosthetic	.21	1.4	3.56	2.28	2.59
Oral surgery	.07	.09	.12	.0	.10
Adjunct medicine	.08	.0	.16	.0	.07
Total	5.29	8.23	8.38	9.18	7.7
	(3)	(9)	(24)	(1)	(39)

.12 RVUs. Esthetic Needs patients age 13-25 use 1 hour 22.3 minutes and are first in the use of restorative services, 3.26 RVUs and endodontic services, 1.0 RVUs. Esthetic Needs patients under 12 lead in diagnostic services, 2.3 RVUs and preventive services, 1.6 RVUs occupying 52.9 minutes in the dental chair.

The T test conducted for the difference between means for each of the above service categories resulted in significance at .05 with varying degrees of freedom for the following services: preventive, periodontics, fixed prosthetics and very close to significance for endodontics and oral surgery.

TABLE #6:5

COMPARISON OF DENTAL SERVICES
AVERGE DENTAL PATIENT VS DENTAL PATIENT TYPES

Type of Service	Average Patient	Comfort Needs	Esthetic Needs
Diagnostic	1.57	1.54	1.3
Preventive	1.17	1.01	.83
Restorative	2.37	3.17	1.24
Endodontic	1.17	.33	.75
Periodontic	1.25	.50	.62
Removable prosthetic	.39	.16	.17
Fixed prosthetic	4.11	.75	2.59
Oral surgery	.18	.13	.10
Orthodontic	.015	.0	.0
Adjunct medicine	.006	.04	.07
Total	12.2	7.63	7.7

Table #6:5 compares the time spent in the dental chair by the Comfort Needs patient, the Esthetic Needs patient and the average dental patient in this sample. The average dental patient spends 2 hours and 2 minutes annually in the dental chair. The dental patient uses 4.11 RVUs on fixed prosthetic services followed by restorative services, 2.37 RVUs. Both Comfort Needs and Esthetic Needs patients utilize about the same amount of time in the dental chair annually: Comfort Needs patients, 1 hour and 16.3 minutes; Esthetic Needs patients, 1 hour and 17 minutes. They differ in how they spend the time in the dental chair. The average Comfort Needs patient uses 3.17 RVUs of restorative services over all other services. The Esthetic Needs patient uses fixed prosthetic services, 2.59 RVUs over all other services.

The primary reason for examining the rate of utilization of dental services by dental patient types is to highlight those characteristics that set each category apart. The Esthetic Needs patient spends a great deal more time in the dental chair on services that require many visits than does the Comfort Needs patient: fixed prosthetic, endodontic and periodontic services usually require extensive visits (more time). They are, therefore, relatively more expensive services than the other dental services listed. It appears that th-

Esthetic Needs patient defines dental health care requirements in terms of those services which maintain appearance (the oral structures) such as endodontics, fixed prosthetic and removable prosthetics and those procedures which directly maintain the functioning health of the oral tissues, in particular periodontal therapy.

The Comfort Needs patient in contrast, utilizes more of the less expensive services, restorative and preventive services and may define dental health care requirements in terms of services which take less time and are, therefore, less of a discomfort. A second difference between the two dental patient types relates to age: Comfort Needs patients age 26-59 use more of the services than their cohorts in the other age groups. Among Esthetic Needs patients, age group 60+ uses more of all dental services than the other age group.

Table #6:6 profiles family income as reported by Comfort Needs and Esthetic Needs patients. It indicates that 39.2% of Comfort Needs patients have family incomes under $20,00 annually which may help to explain their higher use of services which are relatively less costly. The use of diagnostic and preventive services may answer their quest for dental health services; Comfort Needs patients may feel it is

less expensive to be preventive. Table #6:6 also shows that 69.1% of Esthetic Needs patients report incomes of $20.000 and over which leads to the observation that Esthetic Needs patients support the more sophisticated and expensive dental procedures because they can afford them. Does it follow that they neglect preventive services because they feel they can pay for acute care when the need arises?

A closer examination of this table reveals that of the 67.5% of patients who report family incomes of $20,000 or more, 30.2% are Comfort Needs patients and 16.6% are Esthetic Needs patients. Some questions which arise at this point are: If there are more Comfort Needs patients in the higher income category than Esthetic Needs patients, why do Comfort Needs patients opt for less expensive services?

TABLE #6:6

FAMILY INCOME BY DENTAL PATIENT TYPES

Income	% of all Survey Respondents	% of all Comfort Needs patients	% of all Esthetic Needs patients
$35,000+	25.0 (60)	25.0 (23)	33.3 (13)
20,000 - 34,999. .	42.5 (102)	28.2 (26)	35.8 (14)
10,000 - 19,999. .	25.8 (62)	32.6 (30)	10.3 (4)
Under $10,000 . . .	6.7 (16)	6.6 (6)	0.0
	(240)	(85)	(31)

The rate of utilization of dental services by Comfort Needs patients may be a response to the patient's perceived need for comfort and support when confronted with a situation felt as fraught with fear, pain and anxiety. These choices may be encouraged and/or reinforced by the dental practitioner who meet this need knowing that he has Esthetic Needs patients in his/her practice who will utilize the other more expensive services. Thus, the dentist in realizing the needs of all the dental patient types in his care is able to fill his chairtime productively. Is the satisfaction of both the patient's perceived needs and the dentist's needs the basis of compatibility in this relationship? This researcher believes it is.

Comfort Needs patients utilize services that are less anxiety-producing or painful. Yet at the same time, these services provide the Comfort Needs patient with an increased sense of self-esteem. The Comfort Needs patient is meeting his/her dental health requirements and overcoming his/her dental fears.

The Esthetic Needs patient meets his/her dental health care expectations with services that enhance, improve and preserve appearance. These two dental patient types may not be aware of what the scientific, technical terms of dental services are, but they do know what dental services they want and choose those that meet their needs.

In this sense, dental patient types are knowledgeable about their dental needs and are equal partners in their dental care. The dental practitioner recognizes these needs and satisfies them by offering dental services which compliment the patient's perceived needs.

The analysis offered here supports the theory that the mutual participation model outlined by Szasz and Hollender (1956) can describe the dentist-patient relationship. The mutual participation model view:

"participants with approximately equal power":

The dental practitioner offers a wide range of dental services. The Comfort Needs patient and the Esthetic Needs patient selects those services which best meet their particular needs.

"participants are interdependent":

The dentist and each dental patient type depend on each other to meet their dental health needs. The dentist performing those services the patient selects which only a licensed dentist can. He needs the patient to produce his/her work.

"participants engage in activity that will be in some way satisfying to both":

The dentist in meeting the needs of the dental patient types satisfies his/her own professional and economic needs. The dental

patient types, Comfort Needs patient and Esthetic Needs patient experience satisfaction and increased self-esteem when meeting their dental health requirements.

The examination of utilization rates of dental services by dental patient types, Comfort Needs and Esthetic Needs patients, offers concrete evidence for assuming that dentists and patients work together to produce a relationship that is mutally satisfying and productive.

CHAPTER 7

FINDINGS: DENTIST-PATIENT DIALOGUES

The dental profession along with their collegues in other health professions are concerned with the social interaction which occurs in their everyday relationship with patients. Through dental school socialization dentists are indoctrinated with a set of ethics: a collection of how "Thou shall" and "Thou shall not" behave with patients and a mode of language which sets them apart as dental professionals. Studies of the professional role (Parsons 1951, Bloom 1963, Freidson 1970) have identified acts which give patients technical assistence to help solve problems, instrumental and acts which help patients endure or reduce the discomforts of illness and of conveleasing, expressive. Awareness of the problem health professionals experience in treating patients has generated studies which examine the interaction between them. Focusing on the initial interaction (the medical interview) researchers have looked at how doctors and patients talk to one another.

Parsons and Fox (1952) and others (Byrne and Long 1976, Korsch 1968, West 1984, Mishler 1984) have identified the source of the problem in doctor-patient dialogues as one of power; the power resting in the socially ascribed dominance of the medical profession. This inherent power distorts the language used by the participants

in every medical interaction. Mishler (1984) in an attempt to isolate and describe the events occurring in a medical interview hears two voices competing in every medical conversation between a patient and the physician. One, the voice of medicine which incorporates the technical, scientific assumptions of medicine and the other, the voice of lifeworld, the attitudes of everyday life. The two voices, according to Mishler, compete to be heard, but the voice of medical authority is overpowering and wins out most of the time. This bias occurs because the talk used reflects the dominance of medical knowledge and its authority. Freidson (1970) describes this tension as a conflict between participants who have different opposing needs. Waitzken (1985) maintains patients and physicians talk to each other in ways that we as members of the same culture recognize as contextually appriopriate which is dependent on "shared and tacit understandings on commonly held and often implicit assumptions of how to talk and of what to talk about" in any particular situation. Freidson (1970) suggests it is the physician's ability to control information which serves to enforce and reinforce the physician's dominance in the relationship between physician and patient. Wolinsky (1980) characterized the physician's power as located in the need for health care.

situational dependency, in his command of specialized knowledge, situational authority and in the possession of technical skills and certification by society, professional prestiage/authority.

This characterization supports Parsons' classic approach to the physician-patient relationship as an asymmetrical one. Parsons also believed that power is demonstrated in talk (Parsons and Fox 1952) and the gap which occurs between physician and patient because of the physician's specialized knowledge and skill could be bridged by trust (Parsons 1969). Hughes (1971) tells us the elements of trust arise from successful symbolic interactions which rely on certain premises; people act towards things on the basis of the meaning things have for them, that meanings derive from social interactions and meanings are changed by how they are used by persons in actual situations. Zimmerman (1978) noted social roles with socially organized mechanisms are articulated in interactional settings. The small talk that constitutes the physician-patients relationship has not been the focus of research (West 1984). Rather, most researchers believe the interaction between physician and patient evolves from the relationship.

It is the hypothesis of this study that the mutual-participation model (Szasz and Hollender 1956) can serve as an ideal type to examine the dentist-patient relationship. This model assumes that the participants "have approximately the same power, are

mutually interdependent and engage in activity that is in some ways, satisfying to them both". The focus of this study ahs also been to assert that dental patient types can be identified in a dental practice which supports the above assumption and further, that the work the dentist and patient do together which creates, supports and reinforces their reality, the chairside talk which occurs between them, constitutes a compoenent of the dentist-patient relationship.

The patient brings to the dentist-patient relationship needs that eventually help to determine its character. The patient's request for help centers on the presence of a symptom that manifests itself in the form of pain, disability or some type of discomfort or need. The patient needs assistence in finding a diagnosis, following a treatment process and effecting a cure. The relationship is essentially over when the symptom disappears. If this is so, how does the dentist maintain the relationship when the crisis situation has long been resolved? It is the contention of this study that the identification of dental patient types enables the dentist to structure the work done in talk so as to create and maintain continuity of care well beyond the resolution of the immediate problem.

The task faced by the health professional and his/her client is to construct a domain of shared meanings, to extend their "mutual understanding of contextually grounded referential meanings" (Mishler 1984) to integrate the language of the medical professional, concept,

terms and logic with the everyday language of the lifeworld. It is the health professional's responsibility to integrate these two languages as it is the health professional who has the advantage of knowing both worlds. Using Halliday's Triad model (Halliday 1976) of functions, Mishler describes an empirical concordance which occurs between speakers when cohesiveness is achieved. These functions have to do with meaning: textual function, the presence and form of cohesiveness in a stretch of talk; interpersonal function, the qualities and forms of social relationships occurring in speech and ideational function, the reference, content, topics of talk.

As one scans anyone of the four transcipts used for analysis in this study, it becomes very clear that these are discourses between a dentist and his patients because the language of the dental world is apparent. However, at no time does the voice of the dental world overpower the patient's sense of the everyday world. The dentist knows, the patient knows and anyone of a similiar culture who happens to be listening knows, they are engaged in a conversation that has its basis in both the dental world and the everyday world.

Audio-taped sessions of conversations between the dentist and the patient from randomly selected patients identified as Comfort Needs patients and Esthetic Needs patients were examined. A list of categorized patients was given to the dentist who volunteered to conduct the taped sessions as each patient returned for a regularly

scheduled recall visit. The dentist was not informed of the classification of each patient. From a list of twelve patients (eight identified as Comfort Needs patients and four as Esthetic Needs patients) the dentist received permission from the patients to record treatment sessions on four patients. Although this was a very small sample, it was decided to proceed with the analysis. These sessions were examined for talk directly or indirectly oriented to pain or esthetics as evidence that patients and their dentists use certain patterns of conversation to reveal their needs orientations and sustain a mutually satisfying relationship.

Method of Analysis:

It was necessary to formulate some definitions for words or utterances of pain or esthetic orientation before a scoring system could be implemented. Words or utterances denoting or implying suffering, embarrassment, physical discomfort and/or providing comfort or relief from pain, directly or indirectly was assumed to be of pain orientation. Thus, "I don't think we need anesthesia" was interpretated as a direct expression of pain orientation and "We are going to put the mask on" an indirect expression of pain orientation. Esthetic concern was assumed for utterances associated indirectly or directly with physical appearance, image projections or esthetic quality. "Your mouth looks beautiful like it always does." was considered a direct esthetic oriented utterance. "Do

you know they (hair) fall out if you hold it too close?" was categorized as an indirect esthetic oriented remark. It was assumed the content of each conversation would be heard and classified by members of a similiar social culture in a similiar fashion. All four conversations were subjected to a reliability test by having another member not involved with this research replicate the classification of all the utterances.

Scoring System:

The transcript of each audio session was given a code, T1, T2, T3 and T4 to facilitate referring to each session. Each line of conversation was numbered in sequence to make it possible to refer to a particular word, phrase or complete utterance. The number of utterances was counted and totaled for each transcript. A laugh response was counted as an utterance. Each utterance was then classifed as a direct pain or esthetic remark or an indirect pain or esthetic remark or as a neutral remark, neither pain nor esthetic oriented. A transcript was presumed to pain oriented if a significant number of direct and indirect remarks were pain oriented and esthetic oriented if the number of direct and indirect esthetic remarks were greater. In replicating the classification of all the utterances, there was almost 98% agreement (disagreement on three remarks) on direct pain and esthetic remarks. There was a 10.8% disparity in the indirect pain and esthetic remarks. These

differences were addressed by this researcher and the external social member and subsequently resolved. The following analysis reflects a uniform agreement as to the significant pain and esthetic utterances contained in these talks.

Analysis of transcripts:

Table #7:1 identifies Talk #T1 as a pain-oriented transcript. 34.3% of all the utterances are concerned with pain, either directly or indirectly. The dentist makes 81.2% of all the direct pain comments and the patient makes 58.8% of all the indirect comments. There is significant percent difference between indirect pain and indirect esthetic remarks made by the patient. Although the dentist divides his direct talk almost equally 25% to pain and 23% to esthetic, it is to the patient's indirect responses that he responses, 13.4% to patient's 20% indirect pain remarks.

TABLE #7:1

TALK #T1 - PERCENT TOTAL REMARKS

	Patient Talk	Dentist Talk
Direct Pain	6	25
Indirect Pain	20	13.4
Direct Esthetic	10	23
Indirect Esthetic . . .	4	7.6
Neutral Remarks	60	30.7
	(50)	(52)

Table #7:2 sets forth the utterances of Talk #T2 and

indicates this transcript is of esthetic orientation. 20.2% of the talk is esthetic-minded. 62% of all the esthetic remarks, direct and indirect are made by the dentist. The patient's talk committment is to esthetics, note 15.0% to 6.7% direct and indirect pain remarks.

TABLE #7:2

TALK #T2 - PERCENT TOTAL REMARKS

	Patient Talk	Dentist Talk
Direct Pain	5.4	7.1
Indirect Pain	1.3	1.4
Direct Esthetics.	4.1	15.7
Indirect Esthetics.	10.9	10.0
Neutral Remarks	78	65.7
	(73)	(70)

Table #7:3 summaries the percent distribution of Talk #T3 and identifies this transcript to be of esthetic orientation. 21.4% of the conversation in this transcript is esthetic-oriented. 19.6% of the patient's talk deals with esthetics and 21.7% of the dentist's talk. This distinction is possible because of the responses made to each other at the indirect level. The dentist's direct talk again, is almost evenly divided between pain and esthetics.

Table #7:4 indicates that this transcript Talk #T4 can be identified as pain-oriented with 26.8% of the total utterances classified as pain-oriented. 25.3% of the patient's total talk is

TABLE #7:3

TALK #T3 - PERCENT TOTAL REMARKS

	Patient Talk	Dentist Talk
Direct Pain	5.6	15.3
Indirect Pain	1.4	2.5
Direct Esthetics.	7.0	16.6
Indirect Esthetics.	12.6	6.4
Neutral Remarks	73.2	58.9
	(71)	(78)

concerned with pain. In this case the dentist is also heavily concerned with pain talk, 28.3% of talk as opposed to 5.8% of esthetic-oriented talk.

TABLE #7:4

TALK #T4 - PERCENT TOTAL REMARKS

	Patient Talk	Dentist Talk
Direct Pain	8.4	17.9
Indirect Pain	16.9	10.4
Direct Esthetics.	4.2	4.4
Indirect Esthetics.	1.4	1.4
Neutral Remarks	70.8	65.9
	(71)	(67)

Table #7:5 is a comparison of both pain-oriented transcripts and appears to indicate that the key factor in conversation is the extent to which the patient responds to the dentist at the indirect level. Note both transcripts show the patient's indirect

talk is greater than the dentist whereas the dentist is more direct.

TABLE #7:5

COMPARISON OF #T1 AND #T4
PAIN-ORIENTED TRANSCRIPTS

	Patient Talk		Dentist Talk	
	#T1	#T4	#T1	#T4
Direct Pain	6.0	8.4	25.0	17.9
Indirect Pain	20.0	16.9	13.4	10.4
% of all pain talk				
Direct			81.2	66.6
Indirect	58.8	63.1		

A comparison of #T2 and #T3 identified as esthetic-oriented talk makes it clear that though the dentist is quite direct with his esthetic or pain remarks, the conversation sustains its balance through the patient's use of indirect talk.

TABLE #7:6

COMPARISON OF #T2 AND #T3
ESTHETIC-ORIENTED TRANSCRIPTS

	Patient Talk		Dentist Talk	
	#T2	#T3	#T2	#T3
Direct Esthetic	4.1	7.0	15.7	16.6
Indirect Esthetic	10.9	12.6	10.0	6.4
% of all esthetic talk				
Direct			78.5	72.2
Indirect		64.2		

When the analysis was completed, it was revealed that the transcripts as identified correlated 100% with the Comfort Needs and Esthetic Needs patients involved in the conversations.

The distribution of indirect and direct remarks become ties, ways in which cohesiveness is achieved throughout the discourse by the speakers. The identification by the dentist of dental patient types allows the dentist and the patient to develop conversation based on coherent and shared meanings. The direct and indirect responses based on pain or esthetic reinforce the patient's perception of needs orientation: textual function.

Each of the four transcripts include some form of social relationship in speech: the interpersonal function. Statements which define social roles for each of the speakers are heard:
Dentist: "We'll put in the filling then harden it." (role of dentist) "My daughter gets up an hour and a half....."(role of parent).
Patient: "Then it's numb for hours". (role of patient) "My son is that way. He wants ....." (role of parent).

The indirect or direct remarks provide the participants with a reference for what to talk about: the ideational function. In this situation it is the dental appointment:
Dentist: "Get some nitrous and then you can be relaxed while we treat you."
Patient: "Why should this tooth hurt?"

Each of these functions act in separate and overlapping ways to create and maintain the cohesiveness achieved in the dentist-patient relationship. Using Halliday's triad as expanded by Mishler can describe the relationship which occurs between the dentist and the dental patient and answers the question of how continuity of care is sensed over long periods of time.

Discussion:

Though the audio-taped sessions have been identified as either pain-oriented or esthetic-oriented by classifying direct or indirect remarks as pain or esthetic oriented, there remains a good portion of the conversation that is neutral. An examination of the topics discussed by patients and the dentist in these tapes produces some very interesting characteristics that might be specific to the different orientations. Although this is a very small sample from which to draw conclusions for generalizing to other dentist-patient conversations, it remains important to probe for distinctions for future research.

The distinct differences between the conversations cataloged as pain-oriented or esthetic-oriented appear as three general characteristics: an inward/outward perspective, a self/other direction and a past/future orientation.

1. Inward/outward perspective: The participants to these taped conversations have taken a specific perspective. The pain-oriented

individual takes an inward perspective and focuses on inner feelings and concerns for comfort. This perspective is revealed through the choice of words used; "Then it's number for hours afterwards" (T1); "What is it you are giving me?" (T4). It is characterized by the questions asked for alleviating concerns, and the dentist's desire to accommodate by offering explanations for procedures to be performed.

Patient: "You did this before?"

Dentist: "We are going to use a different technique this time and I don't think we need anesthesia." (T1)

Patient: "Why should this tooth hurt?"

Dentist: "Because all the pressure is focused on that tooth." (T4)

The esthetic-oriented individual uses an outward perspective and this approach is reflected in the words used; "just to remember what good literature is like" (T2); "They look better than glasses" (T3) and is characterized by the patient assuming responsibility for treatment. The dentist responds by giving information when asked and assumes patient determination and cooperation.

Patient: "Well, what do you say?"

Dentist: "Two teeth need to be cleaned out," (T2)

Patient: "Why am I spending $600 on this?"

Dentist: "You have plenty that needs to be replaced." (T3)

2. Self/other direction: The direction taken in a conversation can

be towards the self, revealing itself in self-directed action or in self-centered concerns. The esthetic-oriented individual takes this direction in talk:

Patient: "I played tennis." (T2)

Patient: "I was thinking of going to a course offering." (T3)

An other direction taken in a conversation is manifested by discussions of family and/or social issues and may be characterized by sanctions, morals and restraints. The other direction may center around life-cycle processes or stages. The pain-oriented individual makes use of this direction.

Patient: "Last year we were in France----He is a good student." (T1)

Patient: "They are so mature and straightforward----so funny." (T1)

Patient: "You see people either coming in at the end of their lives and making pre-arrangements, and then you see them a little later when they die." (T4)

The social issues tackled in Talk #T1 and #T4 (pain-oriented transcripts) include birth control, adolescent freedom, aging and death. Even religious issues are discussed.

Patient: "most of those southerners are that type, still religious enough so they believe in burying." (T4)

3. Past/future orientation: The audio tapes showed a tendency to be predominately past-oriented or future-oriented. Pain-oriented conversations tend to be past oriented; the words, ideas and problems

are presented from a stance that looks back at previous events or ideas:

Patient: "Then it's numb afterwards for hours."

Dentist: "It's always numb for hours afterwards. This technique is going to be a little different than last time." (T1)

Esthetic-oriented individuals tend to look to the future and their talk reflects this attitude:

Patient: "I was thinking of going to a course offering. A two hour course every Wednesday for ten weeks." (T3)

Dentist: "He decides that he needs a yearly check-up and he gets it." (T2)

The distinct characteristics of these conversations and the direction they take gives credence to the existence of dental patient types in a dental office. Comfort Needs patient types structure their talk to include their feelings about pain and comfort. Their talk also revolves about family and social topics with the tendency to locate their perspectives in the past. Esthetic Needs patient types, on the other hand, appear to reach out with their talk spicing their conversations with observations of events and things external to themselves, yet setting themselves stage center with their language oriented towards the future. Their talk reflects their take-charge attitudes about their responsibilities.

These characteristics meet my expectations for how Comfort

Needs and Esthetic Needs patient types differ. The dental practitioner having learned to recognize the different patient types by the content of the talk, plays his/her part by feeding into the cues provided by the patient. It is important to both dentist and patient to engage in talk that successfully meets the patient's needs. The Halliday triad model has been useful in describing the manner by which cohesiveness between the two participants in this conversation is established and maintained. The talk between the dentist and the patient is not incidental to the dental work that is accomplished during the patient's time in the dental chair. The communication process serves to establish and maintain a balance between both parties to the relationship.

Focusing on these conversations while invoking Byrne and Long's patient-centered communication model (1976), Bloom's transactional model (1963) and Szasz and Hollender's mutual participation model (1956), it becomes apparent that the successful dentist-patient relationship makes use of the components of each of these models. Woven through these talks are moments of silence, listening and reflecting by both dentist and patient described by Byrne and Long as interaction that takes account of patients' feelings, subtle requests for help and patient concerns which are not tied directly to medical problems.

The internal dynamics of Bloom's model characterizes the conversational activity between dentist and patient, expressive, that

communication which emphasizes social-emotional problems:

Dentist: "Let's see, no one really knew that my brother wanted to be cremated except me and his wife. His wife obviously had the say about it but she, you know, needed my support to deal with the family. Boy. Were my parents really upset." (T4)

Patient: "He was the one who committed suicide?" (T4)

instrumental, ways that focus on the main task on hand:

Dentist: "She's going to miss a month in the office. Okay. A cavitron treatment, polishing and now we take a look. Everything looks fine. Your mouth looks beautiful like it always does." (T3)

Patient: "Why should this tooth hurt? At times, Not all the time. When I push them together and push up." (T3)

The conversation between the dentist and the patient is one of give and take, though the basic role of dentist and patient is never really relinquished. The features of the mutual participation model, "approximately equal power, be mutually interdependent, engage in activity that will be in some ways satisfying to both", comes through very clearly in the sample talks. Since the dental patient is not considered sick by the dentist or the patient, the participants in this relationship are free to pursue other roles, other ways of relating to each other. The dental practitioner relies on the conversational interplay to allieviate discomfort, to put the patient at ease, to create the optimal environment which permits successful

treatment. The interplay between conversational participants chair-side is an important aspect of the dentist-patient relationship.

Parallels to the dentist-patient relationship and its elements as herein described may be found in other health professions. Among the helping professions, psychiatry for example, talk is a primary mode of treatment. The psychiatrist is called upon to be attentive to the patient's needs. Generally, psychiatrists do not consider their patients to be physically ill or a mental patient unless the patient assumes the sick role. Both dentists and psychiatrists attempt to medicalize the language of their professional specialty even though their patients continue to use nonmedical terminology. Future studies of conversations between psychiatrists and clients with successful long-term relationships may reveal the source of the fit between them to be similiar to those elements of the dentist-patient talk.

In a recent study (Corah, O'Shea and Ayer 1985) 85% of the dentists interviewed responded "talking was the most overwhelmingly used technique" as an interactive mode with patients (pg. 736). Trial and error was the most commonly reported (74% of the dentists) method of learning how to use this effective technique. The dentist who maintains a long-standing successful relationship with a patient has mastered management of a situation that calls for intimacy while breaching an individual's personal privacy. This work is accomplished

and sustained as "the definitions of reality are continuously validated by apparently trivial features of the social scene - such as: details of setting, person's appearance and demeanor, and inconsequential talk." (Berger 1966).

Thus an important component in the treatment of dental disease is the creation of an atmosphere in which the patient's needs can be expressed, noted and accommodated.

CHAPTER 8

SUMMARY AND CONCLUSIONS

This study was initiated to examine the dentist-patient relationship. This relationship receives very little attention from medical sociologists so this study is essentially exploratory in nature. In the last three chapters I have reported the findings of this research which support several hypotheses:

1. The mutual participation model as described by Szasz and Hollender (1956) can be used to illustrate the dentist-patient relationship.
2. Two distinct dental patient types exist in an average dental practice: The Comfort Needs patient and the Esthetic Needs patient.
3. The dental practitioner recognizes these two dental patient types and their characteristic needs and uses this information to guide patient interviews, treatment modalities and chairside conversations.

Some methodological cautions which must be addressed are the relatively small sample size and the self-selection of patients participating in this study. Because of its small sample size, the findings mentioned may best serve as recommendations for avenues of

future research. The self-selection of patients does not negate the findings noted here: the existence of two distinct dental patient types with their own particular needs and clues to the elements that produce cohesiveness in a relationship and a sense of continuity of dental care over an extended period of time. What was aimed for in this research has been accomplished. This researcher was attempting to identify two dental patient types to show the work that is done through talk to maintain a successful dentist-patient relationship and to use the mutual participation model as a way to describe the dentist-patient relationship. The findings indicate both goals were achieved.

Two dental patient types were identified as Comfort Needs patients and Esthetic Needs patients. The Oral Disability Index classified 92 patients as Comfort Needs and 39 as Esthetic Needs patients. This study surveyed a total of 276 patients. An examination of the characteristics of dental patients indicate the average dental patient is female, 38.3 years of age, has 14.3 years of education and has a family income between $20,000 to $34,999. The findings show dental patients are more likely to be Comfort Needs patients than Esthetic Needs. The Comfort Needs patient is most likely female, 51 years of age or older, has an educational level of high school or less with a family income of under $20,000.

Males are just as likely to be Comfort Needs patients since gender is not statistically correlated to concerns about comfort or esthetics. The Esthetic Needs patient is also most likely female, 31 to 50 years of age, has a college background and a family income of $35,000 and over. Esthetics is not a concern to patient 51 years or older. Comfort Needs patients tend to be older. Though an increase in educational levels alerts patients to greater concerns with comfort or esthetics, Comfort Needs patients have less education than Esthetic Needs patients. The majority of the sample's patients report family incomes between $20,000 to $34,999. Comfort Needs patients average incomes under $20,000 and Esthetic Needs patients average family incomes between $20,000 to $34,999. The findings indicate that concern with esthetics increases as income rises; the level of education also rises with the level of income. How patients pay their dental bills does not influence or reflect their comfort or esthetic needs.

According to findings in this study, the average dental patient spends 2 hours and 2 minutes in the dental chair annually with 4.1 RVUs on fixed prosthetic services and 2.37 RVUs on restorative services (1 RVU = 10 minutes). The average Comfort Needs patient spends 1 hour and 16.3 minutes annually in the dental chair. The average Esthetic Needs patient spends almost the same, 1 hour and 17 minutes. They differ in how they allocate their chairtime.

Comfort Needs patients rank restorative services first (3.17 RVUs), diagnostic services next (1.5 RVUs) and then preventive services (1.01 RVUs). Esthetic Needs patients rank fixed prosthetic services first (2.59 RVUs), diagnostic services next (1.3 RVUs) and then restorative services (1.24 RVUs). Esthetic Needs patients spend more time on services that require many more visits which makes these services more expensive. They define dental health care in terms of those services which maintain appearance; endodontics, fixed prosthetics and removable prosthetics and functional health, periodontal therapy. Comfort Needs patients use the less expensive services: restorative and preventive services and may define health in terms of services which take less time therefore are less painful.

Comfort Needs patients and Esthetic Needs patients also differ in how the various age groups utilize services. Comfort Needs patients age 26 to 59 use more dental services than their cohorts in the other age groups. Among Esthetic Needs patients, the 60 and older age group use more of all dental services than the other age groups. Both groups in meeting their perceived oral needs experience an increase in their self-esteem.

Evidence is presented which supports the hypothesis that the dentist identifies the two dental patient types and uses talk to develop a relationship. Dentists and patients use ties (direct or indirect remarks) which relate to pain or esthetics to achieve

cohesiveness in their conversations. Halliday's triad model (1976) of functions describes how dentists and patients integrate the voice of the health professional with the everyday language of the life-world (Mishler 1984): Textual function: the presence and form of cohensiveness; the use of indirect/direct words or remarks related to pain or esthetics. Interpersonal function: the qualities and forms of social relationships occurring in speech; statements which suggest the roles of participants in conversations such as, social roles of dentist, patient, parent, husband, daughter or son. Ideational function: content, topics of talk or reference; indirect/direct remarks are used to ground and locate each party to what the situation in which the conversation is taking place is, in this case, the dental appointment.

The analysis reported in these chapters supports the hypothesis that the mutual participation model can best describe the dentist-patient relationship (Szasz and Hollender 1956): Participants with equal power: The dentist actively seeks the patient's patronage, offers services which accommodate the patient's needs with the ability to terminate service when deemed necessary. The patient seeks out the dentist, uses those services he/she wants and can decide not to return or comply with instructions at will. Participants who are interdependent: The dentist is dependent upon the patient's need for dental health services. The patient requires

the dentist's skill and knowledge to perform services to meet dental health needs.

Participants engage in activity which is satisfying to both: The dentist experiences both professional and financial satisfaction while supplying the patient's dental needs with appropriate services. The patient receives satisfaction and an increased sense of self-esteem when dental health needs are met.

Recommendations for future study:

The tasks for future research which arise from this study come from the relatively small differences reported. These questions can be stated as:

1. If the level of education and the level of income has a bearing on the probability of a patient being defined as a Comfort Needs or Esthetic Needs patient utilizing different kinds of dental procedures, will a change in either education or income, an increase or decrease, modify a person's orientation?

2. Since this is a self-selected sample of patients with loyalties to the dentist in private practice, it would be interesting to study a patient population in a health maintenance organization setting, a hospital-based dental clinic or a health center dental clinic where one does not expect relationships to develop. Can the same elements of talk be found in conversations between these patient populations and their dentists?

3. Building upon the analysis of talk in this study, conversations between patients and other health professionals in different fields can be tested. Do health professionals use sterotypes to identify their patients and are their interviews, treatment options and modalities and subsequent talk guided accordingly?

The findings of the present study may serve as a springboard for future research into these questions and others which attempt to identify salient aspects of the dentist-patient relationship. Future investigations of the elements of this relationship as presented here can pave the way for their application to other socially constructed relationships which rest on talk.

TO THE DENTAL PATIENT

All information on this form will be kept confidential and is coded so that this information is in no way identifiable to you.

1 [ ][ ] – [ ][ ] 4

PATIENT REGISTRATION

1. Date of Registration — 5 [ ][ ] Month [ ][ ] Date [ ][ ] 10 Year

2. Name — 11 [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] 31
Last First

3. Address — 32 [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] 51
Number Street
52 [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] 71
City State Zip

4. Date of Birth — 72 [ ][ ] Month [ ][ ] Date [ ][ ] 77 Year

5. Telephone — 78 [ ][ ][ ] Area Code – [ ][ ][ ] – [ ][ ][ ][ ] 87

6. Sex ✓ Male [ ] 88 1 Female [ ] 2

Race/Ethnicity ✓ White [ ] 89 1 Black [ ] 2 Hispanic [ ] 3 Oriental [ ] 4 Other [ ] 5

Please check ✓ or indicate the most appropriate answer for each part below.

8. METHOD OF PAYMENT FOR DENTAL SERVICES
90 ☐ 1 Dental Insurance
☐ 2 Self-Pay Only
☐ 3 Medicaid

9. INDICATE YEARS OF EDUCATION — 91 [ ][ ] 92 Years
Starting with kindergarden - round out ½ years to next year.

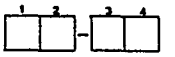
10. OCCUPATION — Yours: _____
Spouse: (If Minor, Parent's (indicate which parent))
If retired or unemployed, indicate occupation when working. 93 [ ]

11. FAMILY INCOME-Please ✓ appropriate range — 94
Indicate gross income - do not include full time students or working children.
☐ 1 0-$ 0 - $4,999
☐ 2 $5,000 - $9,999
☐ 3 $10,000 - $19,999
☐ 4 $20,000 - $34,999
☐ 5 $35,000 +

LUTHERAN MEDICAL CENTER DENTAL QUALITY ASSURANCE

SUPPORTED BY: AMERICAN FUND FOR DENTAL HEALTH - W.K. KELLOGG FOUNDATION

CDI/PSI PATIENT QUESTIONNAIRE



This questionnaire has been designed to find out how you feel your oral health has affected your life in certain areas. Your cooperation in answering to the best of your ability will help your dentist improve the quality of the dental services he provides.

Rate by CIRCLING the degree of impact the areas in the following questions have had on your life from:

1 2 3 4 5 6
none at all a great deal

Please feel free to share some comments with us.

Thank you.

Rate the degree of impact the pain and/or discomfort of dental problems have had on your work, school or household activities? 1 2 3 4 5 6 (none at all — a great deal)
COMMENT:

Rate the degree of impact the LOSS of oral functions (interference with speech and/or interference with eating) due to dental problems has had on your work, school, or household activities? 1 2 3 4 5 6 (none at all — a great deal)
COMMENT:

Rate the degree of impact being UNHAPPY with how your teeth/gums/face/jaws looked has had on your work, school or household chores 1 2 3 4 5 6 (none at all — a great deal)
COMMENT:

Did you ever have to stay home from a social event because of pain or discomfort in your teeth or gums? If yes, rate the degree of impact? 1 2 3 4 5 6 (none at all — a great deal)
COMMENT:

Have you AVOIDED social events and people because your dental problems or dental work interfered with your speech or eating? If yes, rate the degree of impact. 1 2 3 4 5 6 (none at all — a great deal)
COMMENT:

10 Have you AVOIDED people because you felt embarrassed or unhappy with how your teeth and/or gums looked? If yes, rate the degree of impact.
COMMENT:

1 2 3 4 5 6
none at all — a great deal

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11 Have you had to CHANGE eating habits, or diet because you could not chew or were afraid of loosening, breaking or disturbing any dental work? If yes, rate the degree of impact?
COMMENT:

1 2 3 4 5 6
none at all — a great deal

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12 Have you ever CHANGED your diet or eating habits because of pain or discomfort from dental procedures or mouth problems? If yes, rate the degree of impact?
COMMENT:

1 2 3 4 5 6
none at all — a great deal

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13 Has your sleep or rest ever been disrupted because of an inability to close your mouth due to dental problems? If yes, rate the degree of impact?
COMMENT:

1 2 3 4 5 6
none at all — a great deal

---

14 Has your sleep ever been affected because of pain or discomfort from dental problems or dental work? If yes, rate the degree of impact?
COMMENT:

1 2 3 4 5 6
none at all — a great deal

---

15 Have you ever had trouble with your speech because of dental work, loss of teeth or other dental problems UNRELATED to pain or discomfort? If yes, rate the degree of impact.
COMMENT:

1 2 3 4 5 6
none at all — a great deal

---

16 Have you ever AVOIDED normal conversation because of dental work, unattractive teeth/ gums or bad breath? If yes, rate the degree of impact?
COMMENT:

1 2 3 4 5 6
none at all — a great deal

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17 Did you ever LIMIT your facial expression, afraid to laugh, afraid to smile/grin because of unattractive teeth, gums or dental work? If yes rate the degree of impact?

1 2 3 4 5 6
none at all — a great deal

LUTHERAN MEDICAL CENTER DENTAL QUALITY ASSURANCE

SUPPORTED BY: AMERICAN FUND FOR DENTAL HEALTH - W.K. KELLOGG FOUNDATION

Please answer the following questions as best you can:

Has the pain and/or discomfort of dental problems caused you to LOSE days DURING THIS PAST YEAR from your work, school or household activities?

18-20 IF YES, how many days from WORK _____
21-23 how many days from SCHOOL _____
24-26 how many days from HOUSEHOLD ACTIVITIES _____
COMMENT:

Has the pain and/or discomfort of dental problems caused you to LIMIT your activities DURING THIS PAST YEAR?

27-29 IF YES, how many days at WORK _____
30-32 how many days at SCHOOL _____
33-35 how many days at HOUSEHOLD ACTIVITIES _____
COMMENT:

Have you LOST days from your work, school, household activities because you were UNHAPPY with how your teeth/gums/face/jaws looked DURING THIS PAST YEAR?

36-38 IF YES, how many days from WORK _____
39-41 how many days from SCHOOL _____
42-44 how many days from HOUSEHOLD ACTIVITIES _____
COMMENT:

Have you ever LIMITED your activities at work, school, home, because you were UNHAPPY with how your teeth/gums/face/jaws looked DURING THIS PAST YEAR?

45-47 IF YES, how many days at WORK _____
48-50 how many days at SCHOOL _____
51-53 how many days at HOME _____
COMMENT:

Have you ever LOST days from your work, school, household activities because of the LOSS of oral functions (you could not speak, you could not eat) DURING THIS PAST YEAR, due to dental problems?

54-56 IF YES, how many days from WORK _____
57-59 how many days from SCHOOL _____
60-62 how many days from HOUSEHOLD ACTIVITIES _____
COMMENT:

Have you ever had to LIMIT your activities - work, school, home, because of the LOSS of oral functions (you could not eat, or you could not speak) DURING THIS PAST YEAR due to dental problems?

63 IF YES, how many days from WORK _____
66-68 how many days from SCHOOL _____
69-71 how many days from HOME _____
COMMENT:

Please CIRCLE how you feel in response to each question from

1 2 3 4 5 6
not at all very much so

72	Do you believe your dentist does all he can DURING THE OFFICE VISIT so you do not feel pain or discomfort? COMMENT:	1 2 3 4 5 6 not at all very much so
73	Do you believe your dentist does all he can so you do not feel pain or suffer AFTER THE OFFICE VISIT? COMMENT:	1 2 3 4 5 6 not at all very much so
74	Do you believe your dentist does all he can to keep your mouth in good functioning order? COMMENT:	1 2 3 4 5 6 not at all very much so
75	Are you happy with how your teeth and gums look? COMMENT:	1 2 3 4 5 6 not at all very much so
76	Would you recommend your dentist to your friends? COMMENT:	1 2 3 4 5 6 not at all very much so
77	Do you believe your dentist did all he could to allay your fears and anxiety? COMMENT:	1 2 3 4 5 6 not at all very much so
78	Do you find that your dentist does not explain things to you? COMMENT:	1 2 3 4 5 6 not at all very much so
79	Do you feel confident in the care your dentist gives you? COMMENT:	1 2 3 4 5 6 not at all very much so
80	Do you feel the condition of your mouth has improved since you began treatment? COMMENT:	1 2 3 4 5 6 not at all very much so

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