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The Role of Expectations as Determinants of Satisfaction in an Outpatient Care Setting

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THE ROLE OF EXPECTATIONS AS DETERMINANTS OF SATISFACTION IN AN

OUTPATIENT CARE SETTING

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ABSTRACT

Understanding patient satisfaction is a central theme in today's healthcare landscape. The role of patient expectations and its impact on patient satisfaction has not been well understood in the context of a viable theoretical model. Thibault and Kelly's Theory of Interpersonal Relations and constructs of expectations in relationships are used to develop a framework for identifying the main factors driving both expectations and satisfaction. Measures are developed for comparison level of current outcomes compared to expectations (CL), comparison level of alternatives to care (CLalt), investment in selecting a physician, and prior satisfaction. Participants included a random sample of 500 primary care patient and 500 specialty care patients visiting an outpatient medical office in the South. Results indicated that CL, CLalt, and the interaction of CL-CLalt explain 47% of the variance in patient satisfaction. Specifically, CL significantly influenced satisfaction only when alternatives to care were considered more attractive. Emotional investment in selecting a physician correlated with satisfaction while overall investment and research investment was not a significant correlate. Prior satisfaction was also determined to have a positive relationship with satisfaction, however no significant relationship with CL and CLalt. Future research is needed to evaluate constructs of patient satisfaction, CL, CLalt, investment, and prior satisfaction in relation to other care settings, targeted patient demographic populations, and potentially other theoretical models (e.g. equity, communal.)

CHAPTER ONE:

INTRODUCTION

Importance of Patient Satisfaction in Understanding Healthcare

The study of patient satisfaction has been on the rise over the last two decades with over 15,000 academic and trade publications on the topic (Newsome and Wright, 1999). Across the disciplines of sociology, marketing, psychology, and economics, patient satisfaction research has focused on understanding the antecedents, determinants, outcomes, and properties of patient satisfaction. In addition, nearly all healthcare institutions today utilize some measure of patient satisfaction. Monitoring patient satisfaction is important as it has been linked to health-related outcomes. More satisfied patients have been shown to comply with medical advice like appointment keeping, behavioral intentions to comply with recommended treatment, and compliance for prescribed medications (Pascoe, 1986). A better understanding of the factors contributing to satisfaction and identifying methods to influence those factors have significant implications for more effective healthcare services, management of resources, and better health outcomes. From a quality perspective, satisfaction has been studied in relationship to outcomes and measures of quality of care. Although there is much debate regarding the most appropriate method to measure quality, patient satisfaction is considered a relevant and important standard of evaluation (Rosenthal, 1997).

Implications for measurement of patient satisfaction and quality of care are becoming more significant with the increased use of quality report cards in the healthcare arena. Healthcare quality reporting systems and region-specific healthcare grading systems are on the rise, and include patient satisfaction as a key comparative reference along with other traditional quality measures like mortality and infection rates. As healthcare consumers continue to have more choice in selecting healthcare institutions and utilize quality reporting systems to evaluate those choices, patient satisfaction as a measure of quality of care and a guide post for quality improvement takes on significant importance. As Siebert et al. (1996) suggest the main goal of patient satisfaction research is to make prioritized improvements to the delivery and service of healthcare to improve efficiency and outcome.

Finally, from a financial perspective, there is increasing interest in patient satisfaction as it relates to reimbursement rates, patient loyalty, utilization, and risk of malpractice claims. Saxton (2001) advises that high levels of patient satisfaction can serve to brand healthcare institutions and/or providers as an "employer of choice." Marketing patient satisfaction scores to insurance companies and even patients directly, can have a positive effect on both market share and reimbursement rates. Many healthcare organizations utilize patient satisfaction scores to improve capitation rates while negotiating with third-party payers (Press et al., 1990). Ware (1983) found a relationship between patient satisfaction and patient retention with a particular provider. Rubin (1990) found significant differences in patient turnover when comparing practices receiving lower satisfaction ratings. Garman et al. (2004) found that patient satisfaction

predicts patient return-to-provider. Research suggests that there is a relationship between patient satisfaction and the likelihood a patient will recommend and return to the healthcare provider/institution (Cleary, 1988; Doering, 1983; Strasser & Davis, 1991; Al-Mailam, 2005), which would perhaps be useful in understanding and managing utilization of healthcare resources. Given increased cost and competition in the healthcare arena, increased patient retention and utilization, improved reimbursement rates, and increased market share are important to healthcare organizations, healthcare economists, and policy advisors; therefore patient satisfaction as it relates to these variables has increased interest and importance.

In addition, patient satisfaction ratings of physician performance have been associated with risk management. Based on a study of patients from a large teaching hospital, Stelfox et al. (2005) suggest that a physician's risk of malpractice is stable and does not seem to be predicted by characteristics or complexity of patients, but rather by complaints about the physician's technical and/or interpersonal aspects of care, or measures of perceived standards of care.

CHAPTER TWO

THEORETICAL BASIS OF EXPECTATIONS AND SATISFACTION

Expectations and Attitude Formation

Most of the research in the patient satisfaction arena has been empirical in nature,

focused on predictors of satisfaction, differences in patient satisfaction across patient and

facility characteristics, and to some degree the impact of modes of data collection

(Fitzpatrick & Hopkins, (1983). Although somewhat limited, the progress of theory-

building research and subsequent empirical studies has provided a skeleton framework

for this important field of study. Of particular interest in recent work has been the role of

expectations in attitude formation. As Cleary et al. (1998) suggest, patient expectations

may differ across people perhaps as a function of personality, cultural values, prior

experience, and even the context of care. Despite these challenges, several models of

patient satisfaction with a focus on expectations have been developed based on

theoretical work in the social psychology arena including Fishbein and Ajzen's

expectancy-value model, Festinger's theory of cognitive dissonance, and Thibaut and

Kelley's Theory of Interpersonal Relationships.

Expectancy-Value Models

Based on Fishbein and Ajzen's (1975) expectancy-value model, Linder-Peltz

(1982) proposed that patients' perceptions, evaluations, and comparisons antecede patient

satisfaction. Specifically, patient satisfaction is based on a combination of belief strength

about specific attributes of the healthcare experience (access, efficiency, cost,

convenience) and evaluation of those experiences. Beliefs refer to cognition and

represent the information an individual has about an object while attitude refers to affect.

Belief strength is the perceived likelihood that an attribute is associated with the object.

The concept of expectancy-value theory provides a theoretical basis for the concept of a

belief-evaluation theory translated to patient satisfaction. The Linder-Peltz study found

that patient expectations only account for about 8% of the variance in satisfaction and,

together with values and perceptions (of the service received), only 10% of the variation.

However, the study did find evidence to support that lower expectations and favorable

occurrences lead to higher satisfaction while higher expectations and unfavorable

occurrences lead to lower satisfaction.

Fulfillment and Discrepancy Theories

Drawing from the job satisfaction literature, fulfillment theory defines satisfaction

as the amount received from a situation regardless of expectations or wants. Discrepancy

theory defines satisfaction as the outcome of the experience compared to some ideal

outcome of the experience. Pascoe (1983) combines both discrepancy and fulfillment

theory in his description of patient satisfaction as the evaluation of services received

against a standard of care. The standard of care could be one or a combination of ideals

ranging from a subjective ideal, a subjective sense of what one deserves, a subjective

sense of past experiences in similar situations, or a minimally acceptable level. Some

support was found for the discrepancy-fulfillment paradigm; however, lack of variability

in satisfaction measures was cited as a significant concern.

Disconfirmation and Congruency Theories

Swan (1985) proposed a disconfirmation theory suggesting that satisfaction or

dissatisfaction is the result of a comparison between expectations and perceptions of the

actual product or service. The theory suggests that the greater the divergence between

the expectations and actual product/service, the greater divergence in satisfaction,

labeled disconfirmation theory of patient satisfaction. Swan suggested four basic

components to his model: 1) perceptions of performance, 2) confirmation of expectations

concerning performance and perceptions of equitable treatment, 3) overall satisfaction

and 4) intentions to revisit. Patients' perceptions of hospital performance would

influence the extent to which their overall expectations and perceptions of equity would

be met. Fulfillment of these expectations would affect overall patient satisfaction which

in turn would predict patients intentions to revisit the hospital. Disconfirmation theory

makes the assumption that patients enter into an encounter with pre-formed expectations,

as well as the ability plus the desire to evaluate the experience. Swan (1985) found that

patients with lower expectations tend to be more satisfied while those with unrealistic

expectations were less satisfied. Swan found support for the theory, while empirical

research has produced mixed results (O'Connor et al., 2002).

Ross et al. (1995, 1973) present a disconfirmed expectancy /assimilation contrast

theory combining elements of cognitive dissonance and exaggerating incongruence

between expectations and perceptions. Specifically, the researchers suggest that patients tend to displace their perceptions toward their expectations (assimilation) when perceptions and expectations only differ slightly. However, as the difference between expectations and perceptions increases, there comes a point where the patient can no longer assimilate, but begins to exaggerate the difference between perceptions and expectations (contrast effect). According to Sherif & Hovland's (1961) Social Judgment Theory, there is a threshold or region of indifference in between the point of assimilation and contrast.

Fox and Storms (1981) suggest a congruency model of patient satisfaction where two variables, orientation to care and conditions of care, modify any socio-demographic effect on patient satisfaction. Orientation toward care is defined as what people want and expect from their healthcare provider. Conditions of care are defined as the approaches to care and situations of care (location, speed, and cost). If orientation and conditions of care are congruent, then patient satisfaction is increased. Some support was found for the congruency model of patient satisfaction where expectations and provider orientation modified all socio-demographic characteristics except for age and gender.

Oliver (1993) proposes a composite model, called the Cognitive-Affect model. The Cognitive-Affect model places the a) disconfirmation framework, b) cognitive affect of positive/negative, c) attribution, and d) equity/inequity between the preconditions of expectations and attributes performance, and the outcome of satisfaction. Although some empirical support supports the Cognitive-Affect model of satisfaction, differences were found across specific customer encounters. Oliver found that disconfirmation was a

better predictor for car buyers while affect was a better predictor for buyers of education.

Oliver's (1993) model was tested as a general model of customer satisfaction, not specific

to healthcare satisfaction. Another concern is that disconfirmation theory may rely too

heavily on extremes in patient satisfaction and therefore fails to provide a clear

understanding when satisfaction falls between the extremely positive or extremely

negative.

Zone of Tolerance

Parasuraman et al. (1985) propose that customers have a zone of tolerance

between adequate and desired levels of service expectations. Two types of expectations

were defined in the Zone of Tolerance model: "desired" should be or can be (normative

or ideal) and "adequate" or acceptable based on what is customarily expected

(predictive). The zone of tolerance is seen as the range or window in which patients do

not notice differences in service performance. When performance falls outside the range

(either very high or very low) the customer expresses satisfaction or dissatisfaction.

Specifically in healthcare, patients may have different expectation zones for outcome of

care and process of care. For example, patients may hold higher expectations of treatment

than they do about food. Unfortunately, the zone of tolerance model tends to capture

only extreme encounters (very positive or very negative).

Theory of Interpersonal Relations

Thibaut and Kelley's (1959) theory of interpersonal relations directly incorporates

the role of expectations in relationship satisfaction using two related constructs:

comparison level (CL) and comparison level for alternatives (CLalt). The Comparison

Level construct was developed to explain the contributions of previous experiences and

expectations to how satisfied one might be with an exchange relationship. Specifically,

CL is influenced by what one feels is deserved within the relationship, and what

individuals feel is important for them to experience within the relationship. CL is based

on past experience and social influences, which determines the level of outcomes that a

person expects in a relationship (Sabatelli & Shehan, 1993).

In addition to CL, the Thibaut and Kelley (1959) model includes a construct

called comparison level of alternatives (CLalt), defined as the lowest level of outcome

one will accept from a relationship given available alternatives. Barbeau and Qualls

(1984) suggest that CLalt is comprised of what individuals think they would get in an

alternative situation and the perception of choices or alternatives they have available to

them. When outcomes available in an alternative relationship are higher than those

available in the current relationship, the more likely one will leave the relationship

(Thibaut and Kelley, 1959). An individual's position on the continuum of comparative

alternatives is based on the range of outcomes perceived to exist in the next best

alternative. If there are other equally attractive or more attractive choices available to a

person, then there will be less tolerance for anything below the CL. CL and the CLalt

may be unrealistic in terms of possible outcomes but are still relevant in terms of

satisfaction, intentions, and behaviors (Sabatelli &Shehan, 1993).

Although models of interpersonal relations using CL traditionally highlight the

role of CL on satisfaction and the role of CLalt on intentions or behavior of staying/leaving a relationship, some research has shown that CLalt influences satisfaction as well (LaTour and Peat, 1979). Davis and Schoen (1997) found that patients with choice of health plans were significantly more satisfied. Schmittdiel et al. (1997) found that being able to choose one's physician was the best predictor of overall satisfaction. Latour and Peat (1979) found that perceived comparison level of alternatives influenced satisfaction and measures of loyalty.

Duration of relationships has also been studied in combination with satisfaction. Time can influence expectations and satisfaction in several ways. Kelley and Thibaut (1978) suggest that perceived outcomes of an exchange relationship evolve over time and number of exchanges. Exchange theorists characterize an individual's long-term orientation as a critical belief in the relational exchange. With other beliefs, long term orientation influences the development of relational attitudes. From a consumer products perspective, as the length of time spent using a product increases, the consumer tends to adjust comparison levels to expectations. Customer's perceptions of the product are influenced by prior experiences of ideal experiences and normative experiences, and are updated with each new encounter (Boulding et al., 1993). Empirical research has found conflicting reports that patients with more healthcare experience are less satisfied (John, 1992; Oliver, 1993; Quintana, 2006.) However, little research has explored how the concepts of dependence and choice might have mediated these findings, as well as when and why satisfaction starts to decline.

In summary, several models exist in the patient satisfaction literature. Expectancy- value models and models of disconfirmation are more prominent in this line of research, but not without scrutiny. Thibault and Kelley's theory of interpersonal relations serves as a promising basis for understanding how expectations influence satisfaction. With the interpersonal relations model as a framework for defining and measuring expectations, further research is needed to understand how psycho-social, contextual, situational, and demographic factors influence expectations and overall satisfaction.

CHAPTER THREE

DIMENSIONS OF PATIENT SATISFACTION

Overview of Perspectives

The combination of patient demographics, psycho-social influences, the multitude

of care settings, in addition to conceptual and methodological concerns, creates some

unique challenges in the study of patient satisfaction. Despite these challenges, research

identifies fairly consistent dimensions of patient satisfaction. Common factors in the

outpatient clinic experience include: a) the patient-practitioner relationship (competence,

personality of the practitioner, communication), b) location and accessibility of services,

c) continuity of care, d) cost and payment issues, and e) characteristics of the facility

(e.g., cleanliness, noise, equipment) (Lewis, 1994; Seibert et al., 1996) have been shown

to be critical dimensions of patient satisfaction. Linder-Pelz et al. (1985) found three

scales: conduct of the doctor, general satisfaction, and convenience, with conduct of the

doctor as the most important determinant of satisfaction. Jackson et al. (2001) found that

physician communication factors were significantly related to patient satisfaction at the

time of or shortly after the encounter. Physician-related items consistently emerge as

main predictors of patient satisfaction in outpatient clinic settings.

Dimensions of Patient Satisfaction Across Patient Encounters

Hospital-based survey research typically reports nursing care as having a main

effect on overall patient satisfaction (Carey, 1999; Larrabbee et al., 2005; Merkouris et al., 2004; Quintana, 2006; Rubin 1990; Carey et al., 1993.) Carey et al. (1993) found that nursing care was the best predictor of overall patient satisfaction. Doering (1983) found that predictors of satisfaction include nursing care, housekeeping, food, and time spent waiting for admissions. Nursing-related items consistently emerge as main predictors of patient satisfaction in the hospital environment.

In general, perceived interpersonal and communication skills account for more of the variance in patient satisfaction than technical competence and qualifications (Cleary et al., 1998; Doering 1983). Also, patients may be better able to judge interpersonal and communication skills as compared to technical skills. Studies have found increased satisfaction when the patient perceives the physician as caring and sensitive to needs (Pascoe 1983). Studies by Fox and Storm (1981) and Greenley et al. (1981) found factors such as access, availability and convenience as predictors of overall satisfaction as well. Seibert et al. (1996) found access-related measures (e.g. location, parking) to be a stronger predictor in outpatient visits in particular, however overall physician care remained the strongest predictor in this care setting.

Demographic Influences on Patient Satisfaction

A large segment of the patient satisfaction research has focused on understanding the relationship between patient demographics and satisfaction. Some research indicates that patient satisfaction increases with age (Doering 1983; Hall et al., 1990; Jaipaul et al., 2003; Lee et a.l, 1998; Pascoe, 1983; Young et al., 2000), while others fail to find this

association (Cleary et al., 1993) or have suggested that age-satisfaction associations may be due to response patterns or under-representations among the respondents (Ware et al., 1983). Lee et al. (1998) argue that elderly people seem to place greater importance on technical skills as opposed to interpersonal, which links to research on how patient expectations and value impact patient satisfaction.

Research has found that women are slightly more satisfied than men with medical care (Sahin et al., 2007; Quintana, 2006; Wright et al., 2006; Carey 1993; Seibert et al., 1996). Several researchers (Sahin et al., 2007; Quintana, 2006; Lee et al., 1998) found that satisfaction was lower for respondents with less education, less income, and poorer health. Sahin (2007) suggests that patients with higher education levels have higher expectations of the care they receive. As reported by Swan (1985), patients with higher expectations and more knowledge of services are less satisfied. Young et al. (2000) found minorities were less satisfied; while other studies have found the opposite (Linn, 1984). Young (2000) also suggests that different cultural backgrounds may have different expectations regarding clinician behavior; and may hold various elements of care as important to different degrees. As Young (2000) describes, preliminary results suggest that expectations may play a role in the relationship between ethnicity and satisfaction.

Krane et al. (1997) found that patient satisfaction is related to outcomes of care, where sicker patients tend to be less satisfied than patients with a better overall health condition. Researchers suggest that overall life satisfaction is a moderator of the relationship between health outcome and patient satisfaction. Weiss (1998) found that life

satisfaction was a big predictor of patient satisfaction, more so than general health status.

Roberts et al. (1983) found patients with reported higher life satisfaction were also more

satisfied with their healthcare experience. Greenley at al. (1982) suggests that life

satisfaction-patient satisfaction associations could be impacted by extremes in reporting

(i.e., very high levels of dissatisfaction reported by those that deny having a personal

problem).

Situational Characteristics Influence on Patient Satisfaction

Prior impressions of healthcare encounters have been shown to impact overall

patient satisfaction. In a study by John (1992) all but one of the independent variables of

perceived quality was influenced significantly by prior impressions of a hospital. This

finding suggests that patient evaluations of almost all aspects of the experience are

influenced significantly by a patient's prior impressions of the hospital (John, 1992;

Quintana, 2006). In addition, research supports that patients with a regular source of

medical care are more satisfied with care received (Linn, 1984); however in the hospital

setting, patients with longer stays tend to be less satisfied (Carey et al., 1999; Quintana,

2006). The latter may be due to health status confounds, as sicker patients tend to be in

the hospital longer.

Another recent area of growing research interest is the impact of the degree of

investment that a patient has in selecting a physician on patient satisfaction. Investments

refer to the time, energy, feelings, effort and other resources given to build the

relationship. The perception of equality of investments influences the level of satisfaction

one experiences. For example, research on couples who are most satisfied with their relationships reveals that both partners believe each is investing equally in the relationship (Fletcher, et. al., 1987; Hecht, et. al., 1994).   Investment in selecting a product or service is important because it enables patients to determine the degree to which goals might be achieved from using or experiencing the service. Beatty and Smith (1987) found that involvement was positively correlated with the frequency of future purchases. A plethora of information and suggestions on how to select a physician can now be found on the internet and is commonly part of health plan membership information. Limited research has been conducted in this area, with some findings indicating increased investment correlates with increased frequency of use and overall satisfaction (Beatty and Smith, 1987; Bloch et al., 1992.) More research is needed to understand the impact of investment in selecting a physician on expectations and overall satisfaction.

Facility Characteristics Influence on Patient Satisfaction

In addition to patient characteristics, research has focused on the context of care delivery. The context of study has varied across the inpatient hospital environment and outpatient settings, primary care and specialty services, community based, teaching and for-profit and not-for-profit institutions. Hagedoorn et al. (2003) assessed the use of a standard survey (PSQIII) in different care settings and determined that the number and order of the dimensions varied depending on the patient group or care setting, so different care settings yielded different results. Young et al. (2000) found support for a

relationship between patient satisfaction and hospital size, where larger facilities were associated with lower satisfaction ratings. Fleming (1981) evaluated a database of national surveys and found that lower satisfaction was associated with teaching facilities which also tend to be larger facilities and also tend to treat sicker patients; while Young (2000) did not find support for teaching status as a correlate with patient satisfaction.

Measurement of Patient Satisfaction

Measures of patient satisfaction have included various aspects of a unique episode of care, general perceptions of overall care provided by an institution or care provider, care provided by key clinicians like nursing staff, pharmacy, physicians, and interpersonal, process, and outcome measures of care (Castle et al., 2005). Given the diverse settings and context of study, methodological rigor in the measurement of patient satisfaction is critical to ensure the accuracy and relevance of research findings. Ross et al. (1995) show that different measurement methods may provide very different results and interpretation of the findings. Sitzia et al. (1998) report 83% of 210 published studies of patient satisfaction utilized a non-random approach to sampling, which leads to questions regarding the generalizability of results reported by these studies and may explain conflicting findings in the literature. Ware et al. (1988) studied the impact of measures more specific and episodic in nature as compared to general overall impressions about healthcare services and found that episodic measures elicit more variance and have stronger psychometric properties.

Reliability and validity of the measurement tools in patient satisfaction have also faced serious scrutiny. In Sitzia's (1995) review of 195 studies, reliability was reported in only about 40% of the research, reported factor analytic studies producing the minimum criteria were infrequent across both academic and non-academic studies, and only 6% of the studies used appropriately tested questionnaires. Many measurement factors may impact the reliability and validity of patient satisfaction. Studies have explored the impact of acquiescence bias (Jayanti et al., 2004) , social desirability (Sitzia et al., 1998), non-response bias (Lasek et al., 1997; Mazor et al., 2002; Perneger et al., 2005), mode of administration (Perneger et al., 2005; Sitzia et al., 1998; Walker and Restuccia,1984), timing of surveys (Bredart et al., 2002; Dexter et al., 1997; Henderson et al., 2001), and response formats (Hall et al., 1988; Linn et al., 1984; Ware et al., 1988; Uttaro et al., 2004) and found mixed support for various methods often times depending on the population and healthcare context. These results indicate the need for standardized, reliable, and valid measures to ensure appropriate inferences from results.

CHAPTER FOUR

OVERVIEW OF LITERATURE

The study of patient satisfaction is taking on increased importance for quality of care, health outcomes, financial, and risk management reasons. Given this importance, research is increasing in this field with several theoretical models emerging including expectancy-value, various disconfirmation and confirmation models and interpersonal relationships. Most models lack the capacity to explain satisfaction beyond extremes in reporting very positive or very negative levels of satisfaction. Thibault and Kelley's interpersonal relations model serves as an interesting development in this field of study with additional research needed to further explore the applicability of the model in healthcare satisfaction. Despite a variety of methodological and theoretical challenges, consistent satisfaction factors have emerged in the research across various healthcare encounters. Additional research is needed to better understand how expectations impact the identified factors of satisfaction, including the importance of various expectations in overall satisfaction in specific healthcare environments.

Overview of Current Research Goals

The overall purpose of this study is to identify the role that expectations, specifically expectations involving interpersonal relations using the constructs of

Comparison Levels (CL) and Comparison Level of Alternatives (CLalt) have on patient

satisfaction for patients visiting an outpatient clinic. The vast majority of research in

patient satisfaction is based on expectancy and disconfirmation theories with only limited

success at explaining the role of expectations on patient satisfaction. The present

research is based on Thibault and Kelley's (1959) theory in which satisfaction in a

relationship is determined by the degree to which outcomes meet expectations, as well as

meet or exceed outcomes from alternative relationships. Some researchers suggest that

Comparison Levels are more closely associated with satisfaction, and Comparison Level

of Alternatives is more closely associated with likelihood to remain in the relationship

(Thibault & Kelly, 1959). Other researchers have found a relationship between

Comparison Level of Alternatives and satisfaction (Cadotte et al., 1987). Adapted from

items found to be relevant and significant to patient satisfaction, measures of CL and

CLalt will be assessed in the present study for individual aspects of the clinic visit. This

will allow for further analysis and understanding of the role of CL and CLalt and perhaps

yield a reliable and a valid tool for understanding the importance that these factors may

have on overall satisfaction. CL in the present research is measured by the difference

between actual performance and comparison level. CLalt is measured by the degree to

which patients view alternatives to care more or less attractive than current care.

Therefore, one of the main goals of this research is to determine the predictive

nature of comparison levels (CL) (defined as the difference between actual performance

and comparison level of performance) and comparison level of alternatives on patient

satisfaction (CLalt). Patients having at least one prior visit to an outpatient clinic will be

given a survey to measure how well their expectations were met (CL) for each element of

the experience. In addition, patients will be asked to compare this experience to viable

alternatives for each element of the healthcare experience (CLalt). It is hypothesized that

overall satisfaction will be a function of expectations, where outcomes exceed

expectations, patients will be more satisfied, and when comparison level of viable

alternatives is more attractive than current outcomes, patients will be less satisfied. CL is

expected to be a stronger predictor than CLalt since outcome of the current experience as

compared to expectations would have more immediate significance followed by the

degree that viable alternatives are seen as attractive. Regression analysis will be

conducted to assess the degree to which CL and CLalt explains overall satisfaction above

demographic variables.

The second goal of this research is to determine how CL and CLalt are related to

satisfaction for each of the primary dimensions of health care satisfaction in addition to

overall satisfaction. As Thompson et al. (1995) suggest, it is important to study

dimensions of expectations and satisfaction in an effort to develop a comprehensive

model to further understanding of the relationship. Through factor analysis, the goal is to

produce a subset of variables for CL and CLalt respectively. It is hypothesized that

factors of CL and CLalt will emerge that are similar to the patient satisfaction measure

that has already been validated with existing scales including a) physician care, b) access

to care (e.g. location, parking, office hours), c) care process (e.g. nurse courtesy, staff,

wait times, comfort), and d) personal concerns (e.g. sensitivity to needs, privacy.) As CL

and Clalt factors emerge, the present study will determine how expectations for each

specific dimension play a role in overall satisfaction. Since measures of satisfaction related to physician care have been shown in past research to be the strongest predictors of overall satisfaction in outpatient clinic settings, it is hypothesized that measures of CL and CLalt related to physician care will be the stronger of the predictors for overall satisfaction. Regression analysis will also be computed using CL and CLalt factors with the four patient satisfaction scales to understand which factors influence these dimensions. It is predicted that a physician care factor will emerge for both CL and CLalt and will be the leading variable in the equation as satisfaction with physician care explains over 40 percent of the variance in overall satisfaction (Seibert et al., 1996).

The third goal of this research is to examine the influence of investment and prior patient satisfaction on CL, CLalt, and satisfaction. The degree of investment in selecting a physician has been linked to patient satisfaction (Beatty & Smith, 1987; Oliver & Bearden; 1983; Oliver & DeSarbo, 1988). The present study seeks to understand how investment in selecting a physician influences levels of CL, CLalt, and patient satisfaction. It is hypothesized that high investment will be associated with a lower propensity to compare alternatives, and lower investment will be associated with a higher propensity to compare alternatives. High investment will also be associated with better outcome compared to expectations, where lower investment will be associated with outcomes less than expectations. Some research has also linked higher investment with higher level of expectations being met. Therefore increases in investment should lead to both higher expectations and impressions that one's current choice is better than other alternatives. The current research suggests that investment impacts CL and CLalt, which

in turn impact overall satisfaction. It is therefore expected that patients indicating a higher investment should also have higher satisfaction. Findings should advance understanding about how investment in decisions to select physicians influences expectations and overall satisfaction.

Prior satisfaction with a physician has been shown to impact future expectations and overall satisfaction. Specifically, research has shown that patients seek to validate their prior expectations (Pratkanis, 1988). Patients will indicate how well expectations were met and how satisfied they were with their past visit to the physician's office. It is expected that prior patient satisfaction will correlate with CL and CLalt, where higher prior patient satisfaction is reported, patients will more likely report outcome to exceed expectations and less likely to see comparison of viable alternatives as attractive.

The fourth goal is to identify the relationship of CL and CLalt on patient satisfaction across various patient demographics including age, gender, education, health status, and ethnicity.

Hypothesis and Expected Results

It is hypothesized that:

1. Overall satisfaction will be a function of expectations, where outcomes exceed expectations patients will be more satisfied and when comparison level of viable alternatives is more attractive than current outcomes, patients will be less satisfied. Research will also assess whether CLalt accounts for any additional variance in satisfaction after controlling for

CL. Measures of CL and CLalt combined will explain more variance in overall patient satisfaction than demographic variables.

2. Initially, a factor structure for measures of CL and Clalt will be assessed followed by an assessment of how CL and CLalt relate to satisfaction for each dimension. It is assumed that a factor structure will emerge for CL and CLalt that will be similar to that of patient satisfaction measures including: Care Provider, Delivery of Care, Access to Care, and Personal Needs. Expected subscales of Care Provider-CL and Care Provider-CLalt will emerge as the strongest predictors of overall satisfaction with Care Provider –CL explaining more of the variance.

3. Investment will correlate with CL and CLalt. When higher investment is made in selecting a physician, patients will more likely report outcome to exceed expectations and less likely to see comparison of viable alternatives as attractive.

4. Prior patient satisfaction will correlate with CL and CLalt, where higher prior patient satisfaction is reported, patients will more likely report outcome to exceed expectations and less likely to see comparison of viable alternatives as attractive.

5. Explore the relationship of CL and CLalt on patient satisfaction across various patient demographics including age, gender, education, health status, and ethnicity.

CHAPTER FIVE

METHODS

Participants

Participants included a random sample of 500 primary care patient and 500

specialty care patients for a total of 1,000 patients.

Materials

Post Visit Investment Measure. Post visit investment measures were obtained

using a nine-item survey adapted from prior studies (Beatty and Smith 1987; Bloch 1982;

Richins and Bloch 1986). Investment constructs were measured using a five-point rating

scale ranging from "strongly disagree" to "strongly agree."

Post-Visit CL and CLalt Measures. Post visit comparison level and comparison

level of viable alternatives were obtained using items adapted from the Press Ganey

Medical Practice questionnaire (Press et al., 1989.) CL items were measured using a

five-point rating scale ranging from " much better than expected" to "much worse than

expected." CLalt items will be measured using a five-point rating scale ranging from "

much better than my current provider" to "much worse than my current provider".

Post-Visit Satisfaction Measure. Post-visit measures of satisfaction were obtained

using the Patient Perceptions of Medical Practice questionnaire developed by Press et al.

(1989). Three global measures of satisfaction were assessed by means of single items:

"Overall rating of care received during your visit" and "Likelihood of your recommending our practice to others" uses a five-point rating scale ranging from "very good" to "very poor." A third global item, "Overall, how satisfied are you with the visit" using a five-point rating scale ranging from "very dissatisfied" to "very satisfied" was added to the survey. Intention to return for future care was measured by the single item "Likelihood of returning to this office for your future healthcare needs."

Second, to measure patient satisfaction with the various aspects of the physician office encounter, patients rated thirty-one aspects of their care and treatment. Questions were divided into five sub-scales designed to measure specific aspects of patients' experiences during visits to outpatient clinics: Access to Care, During the Visit, the Care Provider, Personal Issues, and Overall Assessment. Measures were obtained using a five-point rating scale ranging from "very good" to "very poor."

Prior patient satisfaction with the current physician was measured by the item, "Think about your prior visits to this physician. How would you describe the prior visits?" with response values ranging from "much better than expected" to "much worse than expected." Prior satisfaction with other doctors that the patient has seen in the past, not including the current physician was measured by the item "Overall, how satisfied are you with all other doctors that you have seen in the past (not including this one)" with response values ranging from "very satisfied" to "very dissatisfied," as well as the item "Overall, how satisfied are you with all other doctors that you have seen in the past (not including this one), " with responses ranging from "very satisfied" to "very dissatisfied."

Current satisfaction was measured through the item "What is your overall rating of care received at your last visit with this physician?" with response values ranging from "very good" to "very poor," as well as the item "Overall, how satisfied are you with the most recent visit" with responses ranging from "very satisfied" to "very dissatisfied."

The Medical Practice Questionnaire developed by Press and Ganey (1989) reports appropriate levels of reliability and validity. A factor analysis identified four dimensions of care and service in addition to patients' overall assessment. Multiple regression analysis revealed that the instrument explains 62% of the variance in overall satisfaction. All of the scales (dimensions) exceeded the stringent .70 Cronbach alpha standard for reliable measures: Reliability estimates range from .83 to .96.

Procedures

A random number was assigned to all clinic patients with at least one prior visit to the clinic with a visit over a one week period. After sorting by random number, 500 primary care and 500 specialty care patients were selected. A survey packet with letter of introduction was mailed to each patient within one week post visit with a postage paid envelope return mail to the clinic. The letter of introduction detailed that this research was being conducted on behalf of Ochsner Health System and as part of a Doctoral research project sponsored by the organization. Two weeks later, a reminder notification was sent to each patient sampled. All survey packet materials are provided in Appendix A and B.

CHAPTER SIX

RESULTS

Response Rates and Demographics.

Two-hundred and sixty-two surveys were returned out of 1,000 for a 26.2%

response rate. Specifically, 500 surveys were sent to primary care patients with 127

returned for a 25.4% and 500 surveys were sent to specialty care patients with 135

returned for a 27% response rate. The average age of the respondent is 63 years old, with

41.43% male and 58.57% female. In terms of ethnicity, 72.4% of the respondents are

Caucasian, 20.4% African American, and 7.2% were Hispanic, Asian, Island Pacific and

other. Over 60% of the respondents had more than 13 years of education, 62.6% are

married, mean income was $79, 576 and median was $54,000. Most of the respondents

had at lease one visit to the referenced physician. Descriptive results are provided in

Tables 1 – 2.

Table 1

RESPONSE RATE OVERALL AND BY CARE TYPE

Participants	Number Mailed	Number Returned	Response Rate
Total	1,000	262	26.2%
Primary Care Patients	500	127	25.4%
Specialty Care Patients	500	135	27%

Table 2

DEMOGRAPHICS OF PARTICIPANTS

Participants	Count	Frequency	Mean (if applicable)
Gender:			
Male	104	41.43%	
Female	147	58.57%	
Ethnicity			
White / Caucasian	181	72.4%	
Black/African American	51	20.4%	
Hispanic/Latino	12	4.8%	
Asian/Pacific Islander	1	0.4%	
American Indian/Alaskan	1	0.4%	
Other	4	1.6%	
Status			
Married	144	62.61%	
Separated	2	0.87%	
Widowed	31	13.48%	
Single	22	9.57%	
Divorced	31	13.48%	
Education			
Less than 10 years	13	5.1%	
10-12 years	86	33.7%	
13-16 years	82	32.2%	
17 or more years	74	29.0%	
Annual Income			79,576
Under $20,000	2	1.4%	
$20,000 - $39,999	44	29.7%	
$40,000 - $59,999	31	20.9%	
$60,000 - $79,999	15	10.1%	
$80,000 - $99,999	11	7.4%	
More than $100,000	45	30.4%	
Age			63.25
First Visit to this Doctor			
No	223	89.5%	
Yes	26	10.4%	

Mean scores for satisfaction items, comparison level from outcomes (CL) items,

and comparison level of alternatives (CLalt) items are provided in Table 3.

Table 3

MEAN SCORES FOR SATISFACTION, CL, AND CLALT ITEMS

Item	Satisfaction	CL	CLalt
Ease of scheduling your appointment	4.38	3.82	2.90
Courtesy of the person who scheduled your appt	4.47	3.87	3.00
Our helpfulness on the telephone	4.43	3.87	2.96
Our promptness in returning your phone calls	4.20	3.74	2.90
Availability of getting an appointment for when you wanted	4.28	3.84	2.89
Speed of the registration process	4.50	3.88	2.96
Courtesy of staff in the registration area	4.50	3.89	3.00
Comfort and pleasantness of the waiting area	4.35	3.78	2.98
Length of wait before going to an exam room	4.19	3.66	2.84
Comfort and pleasantness of the exam room	4.41	3.83	2.95
Friendliness/courtesy of the nurse/assistant	4.62	4.01	2.97
Concern the nurse/assistant showed for your problem	4.52	3.98	2.97
Skill of the nurse/assistant	4.50	3.90	2.95
Waiting time in exam room before being seen by the care provider	4.30	3.79	3.00
Friendliness/courtesy of the care provider	4.71	4.05	2.96
Explanations the care provider gave you about your problem or condition	4.75	4.01	2.97
Concern the care provider showed for your questions or worries	4.65	4.05	2.92
Care provider's efforts to include you in decisions about your treatment	4.62	4.04	2.95
Information the care provider gave you about medications (if any)	4.51	3.97	2.99
Instructions the care provider gave you about follow-up care (if any)	4.53	3.99	2.96
Degree to which care provider talked with you using words you could understand	4.58	4.02	2.97
Amount of time the care provider spent with you	4.47	4.01	2.91
Your confidence in this care provider	4.58	4.13	2.86
Thoroughness of the exam performed by the care provider	4.55	4.07	2.94
Convenience of our office hours	4.48	3.81	2.94
Our sensitivity to your needs	4.45	3.87	2.90
Our concern for your privacy	4.56	3.92	2.94
Convenience of parking	4.16	3.56	2.92
Convenience of our location	4.35	3.75	2.99
Grand Mean	**4.47**	**3.90**	**2.95**

Factor Analysis Results for Satisfaction, CL and CLalt Survey Instruments.

A series of factor analyses were conducted to identify the underlying independent factors for measures of satisfaction, CL, and CLalt, respectively. Factor analysis is a technique used to identify factors that statistically explain the variation among responses to a questionnaire, confirming a questionnaire's construct validity, or structure. As independent factors emerge across the satisfaction, CL, and CLalt instruments, these factors will be part of further analysis to identify their predictive nature. A Promax oblique rotation was conducted because there was no theoretical reason to assume orthogonal factors and because analyses on previous versions of the survey found moderate inter-scale correlations. As a guideline, items with substantial loadings (0.40 or greater) on only 1 factor were retained.

Factor Analysis Results for Satisfaction Survey. A factor analysis was conducted using the items from the patient satisfaction survey instrument previously developed by Press and Ganey (1989). The goal of the factor analysis was to confirm the factors that were identified in the Press and Ganey research, including Care Provider, Delivery of Care, and Access to Care/Personal Issues. The Press Ganey research divided Access/Personal Issues into two separate sections. As hypothesized, the current research confirmed a factor structure very similar to the Press and Ganey findings. A Care Provider, Delivery of Care, Access to Care, and Personal Issues subscales were identified with factor loadings displayed on Table 4. Access to Care and Personal Needs did not cross-load, as they did in the original Press and Ganey research, therefore are considered separate factors.

Table 4

**ITEM CONTENT AND PRIMARY FACTOR LOADINGS OF PATIENT
SATISFACTION ITEMS**

Factors and Item	Loading on Primary Factor
Access to Care	
Ease of scheduling your appointment	0.83
Courtesy of the person who scheduled your appointment	0.83
Our helpfulness on the telephone	0.85
Our promptness in returning your phone calls	0.80
Availability of getting an appointment for when you wanted	0.76
Delivery of Care	
Speed of the registration process	0.67
Courtesy of staff in the registration area	0.58
Comfort and pleasantness of the waiting area	0.65
Length of wait before going to an exam room	0.73
Comfort and pleasantness of the exam room	0.65
Friendliness/courtesy of the nurse/assistant	0.67
Concern the nurse/assistant showed for your problem	0.59
Skill of the nurse/assistant	0.63
Waiting time in exam room before being seen by the care provider	0.71
Care Provider	
Friendliness/courtesy of the care provider	0.63
Explanations care provider gave you about your problem or condition	0.78
Concern the care provider showed for your questions or worries	0.80
Care provider's efforts to include you in decisions	0.83
Information the care provider gave you about medications (if any)	0.82
Instructions the care provider gave you about follow-up care (if any)	0.81
Care provider talked with you using words you could understand	0.82
Amount of time the care provider spent with you	0.80
Your confidence in this care provider	0.87
Likelihood of your recommending this care provider to others	0.84
Thoroughness of the exam performed by the care provider	0.77
Personal Issues	
Convenience of our office hours	0.61
Our sensitivity to your needs	0.60
Our concern for your privacy	0.65
Convenience of parking	0.82
Convenience of our location	0.80

Factor Analysis Results for Expectations Compared to Outcomes (CL) Survey.

Factor analysis was conducted using the items from the CL survey instrument, and

resulted in four factors including those labeled: Expectations of Your Care Provider,

Expectations about Delivery of Care, Expectations about Access to Care, and

Expectations about Personal Issues displayed on Table 5. Although the CL items were

developed as part of this research effort and not previously tested, the items were based

on the Press and Ganey (1989) satisfaction survey items, and as expected, factors of CL

were found to follow the factor structure pattern that was found by Press and Ganey

(1989), as well as the current factor analysis in this research using patient satisfaction

items.

Table 5
ITEM CONTENT AND PRIMARY FACTOR LOADINGS OF COMPARISON OF EXPECTATIONS TO OUTCOME (CL) ITEMS

Factors and Items	Loading on Primary Factor
Expectations of Access to Care	
Ease of scheduling your appointment	0.81
Courtesy of the person who scheduled your appointment	0.78
Our helpfulness on the telephone	0.78
Our promptness in returning your phone calls	0.76
Availability of getting an appointment for when you wanted	0.78
Expectations of Delivery of Care	
Speed of the registration process	0.55
Courtesy of staff in the registration area	0.65
Comfort and pleasantness of the waiting area	0.65
Length of wait before going to an exam room	0.76
Comfort and pleasantness of the exam room	0.75
Friendliness/courtesy of the nurse/assistant	0.78
Concern the nurse/assistant showed for your problem	0.77
Skill of the nurse/assistant	0.72
Waiting time in exam room before being seen by the care provider	0.78
Expectations of Care Provider	
Friendliness/courtesy of the care provider	0.79
Explanations care provider gave you about your problem or condition	0.81
Concern the care provider showed for your questions or worries	0.84
Care provider's efforts to include you in decisions	0.84
Information the care provider gave you about medications (if any)	0.84
Instructions the care provider gave you about follow-up care (if any)	0.83
Care provider talked with you using words you could understand	0.81
Amount of time the care provider spent with you	0.83
Your confidence in this care provider	0.86
Thoroughness of the exam performed by the care provider	0.83
Expectations for Personal Issues	
Convenience of our office hours	0.74
Our sensitivity to your needs	0.69
Our concern for your privacy	0.71
Convenience of parking	0.78
Convenience of our location	0.81

<u>Factor Analysis Results for Comparison Level of Alternatives (CLalt) Survey.</u>

Factor analysis was completed using the items from the CLalt survey instrument and

yielded the following factors labeled as: Comparison of Alternatives (CLalt) for Care

Providers, Comparison of Alternatives (CLalt) for Delivery of Care, Comparison of

Alternatives (CLalt) for Access to Care, and Comparison of Alternatives (CLalt) about

Personal Issues displayed in Table 6.   Although the CLalt items were developed as part

of this research effort, the items were modifications of the Press and Ganey (1989)

satisfaction survey, and as expected, factors of CLalt were found to follow the factor

structure pattern that was found by Press and Ganey (1989), as well as the factor analysis

in this research using patient satisfaction items.

Table 6

ITEM CONTENT AND PRIMARY FACTOR LOADINGS OF COMPARISON LEVEL OF ALTERNATIVES (CLalt) ITEMS

Factors and Items	Loading
CLalt for Access to Care	
Ease of scheduling an appointment at another physician office.	0.82
Courtesy of other physician office staff who would schedule your appointment.	0.80
Helpfulness of other physician offices on the telephone.	0.83
Other physician offices promptness of returning your phone call.	0.86
Availability of getting an appointment when you want it at other physician offices.	0.86
CLalt for Delivery of Care	
Speed of the registration process at other physician offices.	0.77
Courtesy of staff in the registration area at other physician offices.	0.77
Comfort/pleasantness of the waiting area at other physician offices.	0.78
Length of wait before going to an exam room at other physician offices.	0.78
Comfort/pleasantness of the exam room at other physician offices.	0.84
Friendliness/courtesy of the nurse/assistant at other physician offices.	0.80
Concern the nurse/assistant would show for your problem at other physician offices.	0.81
Skill of the nurse/assistant at other physician offices.	0.79
Waiting time in exam room before being seen by other care providers.	0.77
CLalt for Care Providers	
Friendliness/courtesy of other care providers.	0.78
Explanations that other care provider would give you about your problem or condition.	0.81
Concern that other care providers would show you for your questions or worries.	0.86
Other care provider's efforts to include you in decisions about your treatment.	0.86
Information that other care providers would give you about medications (if any).	0.82
Instructions that other care providers would give you about follow-up care (if any).	0.84
Degree to which other care providers would talk with you using words you could understand.	0.81
Amount of time other care providers would spend with you.	0.77
Your confidence in how other care providers would be…	0.81
Thoroughness of an exam performed by other care providers.	0.79
CLalt for Personal Issues	
Convenience of office hours at other physician offices.	0.74
Sensitivity to your needs at other physician offices.	0.78
Concern for your privacy at other physician offices	0.78
Convenience of parking at other physician offices.	0.82
Convenience of the location of other physician offices.	0.85

As hypothesized, factors identified in previous research using the Press and Ganey (1989) Medical Practice survey were confirmed in the current research. Factors emerged for CL and CLalt survey instruments following the same pattern as the Press and Ganey Medical Practice Survey, as predicted since these survey instruments were modifications of the Medical Practice Survey. CL factors are labeled with the pre-fix "expectations" and CLalt factors are labeled with the prefix "Comparison of Alternatives."

Satisfaction, CL, and CLalt Correlation and Regression Analysis

Prior to all analyses, all non-demographic independent variables were centered. A zero order correlation analysis was conducted to understand the relationships across the main variables. Correlations between the predictor variables are presented in Table 7. Patient satisfaction is significantly correlated with the degree to which patients' expectations were met (CL). Although the correlation is not as high, the degree to which patients feel their current physician is better than other alternatives (CLalt) was found to be significantly correlated with satisfaction. No significant relationship was found between CL and CLalt. This demonstrates that despite similarity in wording and mode of data collection, the constructs of CL and CLalt measure different constructs. Significant correlations were identified for patient satisfaction and age (.137, <.05) where older patients tended to be more satisfied.

Table 7

ZERO ORDER CORRELATIONS ACROSS PREDICTOR VARIABLES

	1	2	3	4
1. Age				
2.Income	-.081			
3. Satisfaction	.137*	-.075		
4. CL	-.006	.044	.494**	
5. CLalt	.021	.019	.216**	.118

* Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

Regression analyses were conducted using the single overall patient satisfaction item "Overall rating of care received during your visit" as the dependent variable. At step one; overall satisfaction was regressed on all five demographic variables. Demographic variables including age, race, marital status, education, and income explained only 2.8% of the variance (Adjusted R^2=.028.) None of the demographic variables were significant. CL, CLalt, and the interactions of CL and CLalt were combined with demographic variables including age, race, marital status, education and income in the regression model. These variables together explained 47% of the variance (Adjusted R^2=.472**) in overall satisfaction. CL, CLalt and CL-CLalt interaction variables were all significant, with the interaction between CL and CLalt identified as the strongest predictor as described in Table 8.

Table 8

REGRESSION MODELS OF PATIENT SATISFACTION USING DEMOGRAPIC ITEMS, CL, CLAT AND CL-CLTALT INTERACTION

Model/Dimensions Satisfaction (dependent variable)	Standardized Coefficient	Adjusted R^2
<u>Independent Variables:</u>		.028
Age	.064	
Race	-.156	
Status	-.178	
Education	-.029	
Income	-.087	
<u>Independent Variables:</u>		.472**
Age	.074	
Race	-.040	
Status	-.137	
Education	.019	
Income	-.075	
CL	.389**	
CLalt	.343**	
CL-CLalt Interaction	.428**	

* 0.05 level
**0.01 level

To facilitate interpretation of the interaction of CL * CLalt and the impact on overall patient satisfaction, a post hoc simple slopes analysis of high and low values of CLalt was conducted.   As shown in Table 9, the influence of CL on satisfaction was greater when alternatives were viewed as more attractive. As patients' see other alternatives as more attractive, the role of how well their expectations were met from their most recent experience becomes more important to overall satisfaction. When less attractive alternatives are available to patients, CL was not a significant predictor of satisfaction.

Table 9

SIMPLE SLOPE ANALYSIS FOR THE EFFECT OF CL ON SATISFACTION BY LEVEL OF CLALT

Model/Dimensions Satisfaction (dependent variable)	Less Attractive Alternatives to Current Provider Standardized Coefficient	More Attractive Alternatives to Current Provider Standardized Coefficient
<u>Independent Variables</u> CL	**.001**	**.776****

 *0.05 level
**0.01 level

Satisfaction, CL, CLalt, and Investment

   Overall investment and investment by CL and CLalt interactions were entered into the regression model. The investment item and investment interactions with CL and CLalt did not add to the overall variance explained (Adjusted R^2=.461); and these variables were not found to be significant predictors. The hypothesis that overall investment would predict satisfaction was not substantiated; however, as found without investment in the equation, hypotheses related to the predictive nature of expectations compared to outcomes (CL), expectations compared to alternatives (CLalt) and interactions between the two were supported. However, adding investment variables to the model did not affect R^2 or Beta Coefficients for CL, CLalt or the CL-CLalt interaction. Results are detailed on Table 10.

Table 10

REGRESSION MODELS OF PATIENT SATISFACTION USING DEMOGRAPIC ITEMS, CL, CLAT, CL-CLT INTERACTION AND INVESTMENT

Model/Dimensions Satisfaction (dependent variable)	Standardized Coefficient	Adjusted R^2
<u>Independent Variables</u>		.461**
Age	.72	
Race	-.024	
Status	-.129	
Education	-.018	
Income	-.069	
CL	.391**	
CLalt	.342**	
CL-CLalt Interaction	.440**	
Investment	-.043	
Investment-CL Interaction	.019	
Investment-CLalt Interaction	.057	

* 0.05 level
**0.01 level

CL, CLalt and Investment Subscales as Predictors of Satisfaction

Next, overall satisfaction was regressed using the five demographic items with the

CL subscales including: Expectations about Delivery of Care, Expectations about

Physician Care, Expectations about Access to Care, and Expectations about Personal

Needs. All non-demographic variables were centered. Results showed that the model

explained approximately 25% of the variance (Adjusted R^2=.253**). The only subscale

that was significant was Expectations about Care Provider; results detailed in Table 11.

Table 11

REGRESSION MODEL OF PATIENT SATISFACTION USING DEMOGRAPIC ITEMS CL SUBSCALES, CLALT SUBSCALES, AND INVESTMENT SUBSCALES

Model/Dimensions Satisfaction (dependent variable)	Standardized Coefficient	Adjusted R^2
<u>Independent Variables:</u>		.253**
Age	.062	
Race	-.071	
Status	-.144	
Education	.062	
Income	-.129	
Expectations about Access to Care	.141	
Expectations During Your Visit	.121	
Expectations About Your Care Provider	.406*	
Expectations about Personal Concerns	.142	
<u>Independent Variables</u>		.270**
Age	.072	
Race	-.038	
Status	-.160	
Education	.097	
Income	-.139	
Expectations about Access to Care	.139	
Expectations During Your Visit	.096	
Expectations About Your Care Provider	.384*	
Expectations about Personal Concerns	.100	
CLalt Expectations about Access to Care	.046	
CLalt Expectations During Your Visit	.157	
Clalt Expectations About Your Care Provider	.083	
Clalt Expectations about Personal Concerns	.049	

Independent Variables		.272**
Age	.073	
Race	-.046	
Status	-.172	
Education	.084	
Income	-.143	
Expectations about Access to Care	.105	
Expectations During Your Visit	.106	
Expectations About Your Care Provider	.379*	
Expectations about Personal Concerns	.082	
CLalt Expectations about Access to Care	.050	
CLalt Expectations During Your Visit	.137	
Clalt Expectations About Your Care Provider	.059	
Clalt Expectations about Personal Concerns	.020	
Investment-Research	-.021	
Investment-Social	.150	

* 0.05 level
**0.01 level

With the addition of the CLalt subscales and then subsequently the Investment subscales,

Expectations About Your Care Provider was the strongest and only predictor. As

hypothesized, Expectations about Care Provider subscale was the stronger predictor of

satisfaction across the four CL subscales. None of the CLalt or investment subscales

were significant, and the addition of these subscales to the model added little additional

variance.

Relationship between Investment and Overall Satisfaction, CL and CLalt

A factor analysis was conducted to determine if appropriate independent factors would emerge for the construct of Investment. Analysis revealed two subscales labeled "Research Investment" and "Emotional Investment" summarized on Table 12. Inter-scale correlations were assessed to ensure independence in measurement. Each scale was evaluated to ensure that no inter-scale correlation coefficient was higher than each scales' respective reliability estimates. All scales met this guideline.

Table 12

ITEM CONTENT AND PRIMARY FACTOR LOADINGS OF INVESTMENT ITEMS

Factors and Item	Loading on Primary Factor
Research Investment Scale	
I constantly compare the services offered by various physicians in my area.	**0.76**
I researched multiple physicians/offices in the area before I decided to book an appointment with this physician's office.	**0.69**
I compared the services of physicians/ offices in my area before I selected my current physician.	**0.87**
After deciding to receive care from this physician, I discussed my choice with family and friends.	**0.71**
After deciding to receive care from this physician/office, I have compared this physician's office with other physicians' offices in the area.	**0.86**
After deciding to receive care from this physician/office, I have weighed the pros and cons of my choice.	**0.77**

Emotional Investment Scale	
The image or reputation of this physician's office played a major role in my decision to become a patient of this office.	**0.76**
The physician I visit says a lot about who I am.	**0.89**
It is important for me to choose a physician/office that "feels" right.	**0.83**

It was hypothesized that investment would significantly correlate with CL and CLalt, where patients with higher investment would be more likely to report outcomes that exceed expectations and less likely to see comparison of viable alternatives as attractive. A Pearson's Product Moment Correlation analysis revealed that overall Investment and the Research Investment subscale did not correlate with overall satisfaction, CL, CLalt, or any of the subscales; therefore the original hypothesis was not substantiated; however significant relationships were identified for the Emotional Investment subscale. The Emotional Investment subscale significantly correlated with patient satisfaction (.213; $p<.01$), CL (.259; $p<.01$), CL-Care Provider (.245; $p<.01$), CL-During Your Care (.243; $p<.01$), CL-Access to Care (.206; $p<.01$), and CL- Personal Needs (.224; $p<.01$); indicating that the more emotional investment exhibited by patients, the higher the overall satisfaction and the more likely that patient outcomes would exceed expectations across all aspects of the visit. The Emotional Investment subscale did not significantly correlate with the CLalt item or any of the CLalt subscales; therefore, the degree of emotional investment was not found to be related to the likelihood that patients would see other available alternatives as valuable. The fact that emotional investment correlated with CL and CL subscales, but did not correlate with CLalt or the CLalt subscales demonstrates that CL and CLlat although measured similarly are in fact

different constructs. Results are detailed on Table 13.

TABLE 13

**CORRELATIONS ANALYSIS OF INVESTMENT WITH
SATISFACTION, CL, CL SUBSCALES, CLALT, AND CLALT SUBSCALES**

Variable	Investment	Investment-Research	Investment-Emotional
Patient Satisfaction	.003	-.106	.213**
CL	.083	.006	.259**
CL-Care Provider	.039	-.046	.245**
CL-Access to Care	.081	.006	.206**
CL-During Your Care	.077	.003	.243**
CL-Personal Needs	.107	.035	.224**
CL-Alt	-.030	-.050	-.011
CL-Alt Care Provider	.003	-.019	-.013
CL-Alt Access to Care	-.033	-.048	-.018
CL-Alt During Your Care	-.018	-.041	.004
CL-Alt Personal Needs	-.044	-.043	-.064

* 0.05 level
**0.01 level

Analysis of variance revealed differences in primary care patient and specialty

care patients' responses to the emotional investment scale where specialty care patients

had a higher level of emotional investment in selecting a physician than primary care

patients. Significant differences were not found for other investment items (Table 14).

TABLE 14

ANALYSIS OF VARIANCE OF INVESTMENT BY TYPE OF CARE

Investment Items	Type of Care	Mean	SD	N
Investment -Research Scale	Primary	2.1589	1.20982	120
	Specialty	2.2903	1.01326	131
	Total	2.2275	1.11126	251
Investment- Emotional Scale	Primary	3.7424*	1.23416	121
	Specialty	4.0417*	0.93442	128
	Total	3.8963	1.09845	249
Overall Investment	Primary	2.7029	1.06768	122
	Specialty	2.8632	0.84106	131
	Total	2.7859	0.95850	253

* 0.05 level

Relationship Between Prior satisfaction and Satisfaction, CL, and CLalt

In order to determine the relationship between prior satisfaction and current satisfaction, CL, and CLalt, a Pearson's Product Moment Correlation analysis was conducted. It was hypothesized that where higher prior patient satisfaction was reported, patients would be more likely to report higher patient satisfaction with their current visit. Significant relationships were determined for overall satisfaction and the following six measures of prior and current satisfaction: "How would you describe prior visit with this physician" (expectations met response values) (.311; $p < .01$), "What is the overall care you received from this physician at your last/prior visit (very good response values)" (.672; $p < .01$), "What is your overall rating of care received at other physician offices (not this physician)?" (very good response values) (.234; $p < .01$), "Overall how satisfied are you with all other doctors (not your current doctor)" (satisfaction response values) (.254; $p < .05$), "Overall how satisfied are you with most recent visit (satisfaction response values)" (.699; $p < .01$), and "How many years have you been with this physician?" (.218; $p < .01$). Support was found for the hypothesis that current satisfaction has a positive relationship with measures of prior expectations, prior reported outcomes, and prior visits with other doctors and satisfaction with most recent visit, and length of time with the current physician.

It was hypothesized that where higher prior patient satisfaction was reported, patients would be more likely to report outcomes to exceed expectations and less likely to see comparison of viable alternatives as attractive. Significant relationships were determined for overall CL and the following five measures of prior and current

satisfaction "How would you describe prior visit with this physician" (expectations met response values) (.555; p < .01), "What is the overall care you received from this physician at your last/prior visit (very good response values)" (.394; p <.01), "What is your overall rating of care received at other physician offices (not this physician)?" (very good response values) (.206; p<.01), "Overall how satisfied are you with all other doctors (not your current doctor)" (satisfaction response values) (.205; p<.01), and "Overall how satisfied are you with most recent visit (satisfaction response values)" (.468; p<.01). The only significant relationship found between CLalt and measures of prior and current satisfaction is "Overall how satisfied are you with most recent visit (satisfaction response values)" (.239; p<.05). Correlation results are presented in Table 15.

TABLE 15

CORRELATIONS ANALYSIS OF PRIOR SATISFACTION AND SATISFACTION, CL, AND CLALT

Variable	Patient Satisfaction	CL	CLalt
How would you describe prior visit with this physician (expectations met response values)	.311**	.555**	.071
What is the overall care you received from this physician at your last/prior visit (very good response values)	.672**	.394**	.128
What is your overall rating of care received at other physician offices (not this physician)? (very good response values)	.234**	.206**	.041
Overall how satisfied are you with all other doctors (not your current doctor) (satisfaction response values)	.254*	.205**	.028
Overall how satisfied are you with most recent visit (satisfaction response values)	.699**	.468**	.239*
How many years have you been with this physician?	.218**	.047	.030
How many times have you visited this physician in the past year?	.016	-.017	.008

*   Correlation is significant at the 0.05 level
** Correlation is significant at the 0.01 level

A regression analysis identifies only one item as a significant predictor of overall

satisfaction: "What is your overall rating of care received at your last visit with this

physician? (Very good response values)." The overall model of prior experience items

explains 38% of overall satisfaction summarized in Table 16.

Table 16

**REGRESSION MODEL OF OVERALL SATISFACTION USING PRIOR
SATISFACTION ITEMS**

Model/Dimensions	Standardized Coefficient	Adjusted R^2
Satisfaction (dependent variable)		. 388**
What is your overall rating of care received at your last visit with this physician? (very good response values)	.562**	
How would you describe the prior visits? (expectations)	.113	
What is your overall rating of care received at other physician offices (not this physician)?	.120	
Overall, how satisfied are you with all other doctors that you have seen in the past (not including this one).	.137	
How many years have you been with this physician?	-.033	
How many times have you visited this physician's office in the past year?	-.029	

* 0.05 level
**0.01 level

Satisfaction, CL, and CLalt across Demographic Variables.

Analysis of variance was conducted for each demographic variable and overall CL and CLalt to determine the nature of these relationships.

No significant differences were found across primary and specialty patients for overall satisfaction, CL, or CLalt mean scores summarized in Table 17. Although not significant, primary care patients' average satisfaction score and CL scores are slightly higher compared to specialty care patients. On average, both specialty and primary care patients reported that viable alternatives to care would be about the same as care provided from their current physician office.

Table 17

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY PATIENT CARE TYPE

SCALE	Type of Care	Mean	SD	N
Overall Satisfaction Scores	Primary	4.580	.614	123
	Specialty	4.470	.867	129
CL Mean Scores	Primary	3.984	.735	125
	Specialty	3.838	.782	135
CLalt Mean Scores	Primary	3.179	.805	112
	Specialty	3.026	.756	116

No significant differences were found across reports of Health Status for overall satisfaction, CL, or CLalt presented in Table 18. Although not significant, overall mean scores for patient satisfaction did increase as reported health status increased, and patients with better health status reported that they were more likely to have a better alternative to current care while patients with lower health status reported alternatives to care about the same as their current provider.

Table 18

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY HEALTH STATUS

SCALE	Health Status	Mean	SD	N
Overall Satisfaction Mean Scores	Very Poor/Poor	4.313	1.138	16
	Fair	4.400	0.783	50
	Good	4.567	0.752	127
	Very Good	4.603	0.591	58
Overall CL Mean Scores	Very Poor/Poor	3.934	0.879	18
	Fair	3.721	0.777	53
	Good	3.928	0.719	128
	Very Good	4.033	0.814	58
Overall CLalt Mean Scores	Very Poor/Poor	3.377	0.910	15
	Fair	3.009	0.663	47
	Good	3.162	0.699	110
	Very Good	2.961	0.888	53

No significant differences were found across education levels for overall satisfaction, CL, or CLalt mean scores summarized in Table 19. Although not significant, overall satisfaction scores decreased from 10-12 years of education (4.58), 12-16 years of education (4.52) and 17+ years of education (4.45).

Table 19

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY EDUCATION

SCALE	Education	Mean	SD	N
Overall Satisfaction Mean Scores	Less than 10 years	4.546	.522	11
	10-12 years	4.578	.683	83
	13-16 years	4.519	.749	79
	17+years	4.452	.883	73
Overall CL Mean Scores	Less than 10 years	3.949	.780	13
	10-12 years	3.997	.812	85
	13-16 years	3.788	.707	82
	17+years	3.918	.773	74
Overall CLalt Mean Scores	Less than 10 years	3.155	.847	11
	10-12 years	3.075	.738	77
	13-16 years	3.147	.630	72
	17+years	3.072	.911	64

No significant differences were found across income levels for overall

satisfaction, CL, or CLalt mean scores summarized in Table 20.

Table 20

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY INCOME

SCALE	Income	Mean	SD	N
Overall Satisfaction Mean Scores	Less than 40k	4.548	0.772	42
	40-55k	4.600	0.814	30
	56-79k	4.467	0.990	15
	80-99k	4.727	0.647	11
	100k+	4.386	0.970	44
Overall CL Mean Scores	Less than 40k	3.785	0.749	46
	40-55k	4.196	0.669	31
	56-79k	3.741	0.946	15
	80-99k	3.962	0.688	11
	100k+	3.857	0.784	45
Overall CLalt Mean Scores	Less than 40k	3.306	0.797	44
	40-55k	3.007	0.633	28
	56-79k	3.131	0.940	15
	80-99k	3.305	1.150	8
	100k+	2.983	0.527	35

Analysis of variance results for satisfaction, CL, and CLalt across marital status

identified two significant differences in mean scores. Married patients were significantly

more satisfied than single patients and widowed patients were significantly more satisfied

than single patients. Although not significant, widowed patients were more satisfied in

terms of overall satisfaction (4.58) and CL scores (4.0) and were less likely to find viable

alternative physician offices better than current office (2.99) summarized in Table 21

Table 21

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY MARITAL STATUS

SCALE	Status	Mean	SD	N
Overall Satisfaction Mean Scores	Married	4.584[a]	0.693	137
	Widowed	4.710[b]	0.529	31
	Single	3.952[ab]	0.974	21
	Divorced	4.333	1.028	30
CL Mean Scores	Married	3.926	0.759	143
	Widowed	4.003	0.753	31
	Single	3.793	0.700	22
	Divorced	3.769	0.903	31
CLalt Mean Scores	Married	3.105	0.699	122
	Widowed	2.991	0.809	29
	Single	3.045	0.779	21
	Divorced	3.136	0.759	28

a 0.05 level
b 0.05 level

Analysis of variance results for satisfaction, CL, and CLalt across race identified no significant difference in mean scores. Although not significant, among the two largest ethnic categories reported (i.e. white and black patients), white patients reported higher levels of satisfaction and comparison levels from outcomes compared to black patients summarized in Table 22.

Table 22

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY RACE

SCALE	Race	Mean	SD	N
Overall Satisfaction Mean Scores	White	4.560	.701	173
	Black	4.340	.982	50
	Hispanic	4.667	.651	12
	Other	4.600	.548	5
Overall CL Mean Scores	White	3.904	.773	180
	Black	3.892	.775	51
	Hispanic	3.827	.701	12
	Other	4.459	.686	6
Overall CLalt Mean Scores	White	3.134	.750	159
	Black	2.920	.643	45
	Hispanic	3.628	.976	11
	Other	3.0477	.924	4

Analysis of variance results for satisfaction, CL, and CLalt across age identified

no significant difference in mean scores summarized on Table 23. Although not

significant, patients 61 years and older reported the highest levels of overall mean

satisfaction and CL.

Table 23

ANALYSIS OF VARIANCE FOR SATISFACTION, CL, AND CLALT BY AGE

Scale	Age	Mean	SD	N
Overall Satisfaction Mean Scores	Under 40	4.211	1.228	19
	41-50	4.313	0.693	32
	51-60	4.458	0.922	48
	61+	4.635	0.610	145
Overall CL Mean Scores	Under 40	3.931	0.635	20
	41-50	3.754	0.769	32
	51-60	3.953	0.822	50
	61+	3.937	0.766	150
Overall CLalt Mean Scores	Under 40	3.103	0.893	19
	41-50	2.952	0.642	27
	51-60	3.136	0.721	45
	61+	3.118	0.784	133

* 0.05 level
** 0.01 level

CHAPTER SEVEN

DISCUSSION

The overall purpose of this study was to identify the role that expectations,
specifically expectations involving interpersonal relationships using the constructs of
Comparison Levels (CL) and Comparison Level of Alternatives (CLalt) have on patient
satisfaction for patients visiting an outpatient clinic. Main hypotheses were confirmed
including: CL and CLalt were identified as significant predictors of patient satisfaction;
elements of investment were shown to be related to patient satisfaction; and prior
satisfaction was shown to influence current satisfaction. It is hoped that the current study
has advanced Thibault and Kelley's Theory of Interpersonal Relations as a viable
grounded theory for the study of expectations and patient satisfaction. In addition, the
significance of some of the current findings may open more avenues for questioning and
help to better understand these complicated constructs from a scientific research
perspective, while providing the healthcare community with additional insights on how
expectations drive overall patient satisfaction.

Predictors of Patient Satisfaction

The main hypothesis of this study was supported in that CL, CLalt and the
CL*CLalt interaction together explained 47% of the variance in overall satisfaction, and

were stronger predictors than the demographic items. Further analysis revealed that

when patients view alternatives to care to be more attractive, the degree to which their

expectations were met or not met (CL) had more influence on overall satisfaction. This

lends partial support to Thibault and Kelly's finding that when there are other equally

attractive or more attractive choices available to a person, there will be less tolerance for

anything below the CL. Although Thibault and Kelley did not demonstrate that this lack

of tolerance would impact overall satisfaction, it does seem plausible given the current

finding that CL's influence on satisfaction is greater when patients perceive other

alternatives as more attractive.

Overall, the finding that the constructs of CL and CLalt, and the resultant

interaction between the two is a strong predictor of patient satisfaction has important

implications for the literature since most prior studies have found little variance explained

when studying expectations and satisfaction, with even less research utilizing constructs

of Comparison Level of Alternatives. Prior research studying CL and CLalt found that

CL is more closely aligned with satisfaction, while CLalt is more closely associated with

staying or leaving a relationship (Thibault and Kelley, 1959). These research efforts have

typically focused on the study of romantic relationships as opposed to commodity

relationships or other types of service relationships. A relevant question is, is the role of

the physician more like an interpersonal relationship or one of commodity/service, or

perhaps a blend of the two? The fact that the current results indicated a) physician care

satisfaction subscale was a strong predictor of overall satisfaction; b) patient expectations

about the physician were the only significant predictor of satisfaction, with access,

process of care, and personal issues not significant; and c) emotional investment in

selecting a physicians' office correlated with satisfaction; the patient-physician

relationship does seem to somewhat   align with traditional romantic relationship

research. However, different from a romantic relationship, the healthcare community has

been slowly migrating in the direction of a service/commodity industry through

marketing appeals, increased ease in reporting dissatisfaction with physician office care,

and increased ease in changing physicians due to this dissatisfaction. The Theory of

Interpersonal Relations does provide a new and progressive way to approach the study of

patient satisfaction; however, additional research is needed particularly in consistently

defining the CLalt construct.

Barbeau and Qualls (1984) suggest that CLalt is composed of a blend of the

choices one has available and what one thinks they would get in an alternative situation

(quality/ attractiveness.) The current research measures CLalt by asking the patient to

consider how much better or worse their current provider is compared to other providers

available to them across various elements of care. Particular to this study, the patients in

the current region do have alternatives to other doctors and practices (i.e. little third party

payor regulation or limitations on selections of care providers), so it may be assumed that

patients are evaluating perceived level of quality/attractiveness of alternative healthcare

options compared to their current healthcare choice. One might say that in this market

and given this definition, having fewer alternative options could be interpreted as "my

physician is better than others." This presents the construct of CLalt in a unique way as

opposed to options for care, the current research mainly focuses on attractiveness of

alternatives compared to current experiences. Davis and Shoen (1997) found that increased options for care led to increased patient satisfaction. Perhaps having "options" in the sense that one might be allowed to select their own doctor does lead to higher patient satisfaction given this narrow interpretation. Perhaps the degree to which the patients' current provider meets expectations of care may moderate satisfaction.

Regardless of the CLalt definition, current results advance our understanding of this complex and important relationship between the patient and the physician. Other researchers have demonstrated that satisfaction with physician care is the strongest predictor of overall patient satisfaction (Cleary et al., 1988; Doering 1983; Seibert & Strohmeyer, 1996.) Present research validates this finding, as well as identifies expectations about physician care to be the most important predictor of overall satisfaction as well, explaining 22% of the variance in overall satisfaction. Beyond progressing our understanding of expectations and satisfaction from a research perspective, it enables the healthcare community to better align resources and quality improvement initiatives around what patients value the most, the physician-patient experience. In addition, healthcare providers would also benefit from marketing key services to their patient population and in particular how they are positioned compared to others. Resources would be best spent to increase current outcomes compared to expectations around the patient-physician relationship while ensuring that patients view other physicians as less attractive.

Factor Structure for CL and CLalt

It was expected that factors of CL and CLalt would emerge similar to factors of patient satisfaction since CL and CLalt items were modified items from the satisfaction measure. However, it was important to identify these dimensions and ensure that CL and CLalt factors would emerge without significant cross loadings and demonstrate appropriate internal consistency and reliability. Clearly defined subscales of CL and CLalt were identified; specifically, the CL subscale Expectations of Care Provider was found to be a significant predictor of satisfaction. Established subscales for CL and CLalt enabled further research to emerge progressing our understanding of how patient expectations about various elements of the healthcare outpatient experience impact overall satisfaction. Prior research has not identified components of expectations and expectations of alternatives within the context of a defined experience (i.e. outpatient clinic setting.) It will be important for future research to validate factors in other healthcare settings where our expectations about elements of care and the importance of alternatives to care may take on different meaning to patients. For example, one cannot assume that the factors and /or influence of CLalt and CL on satisfaction would be the same in an Emergency Department setting as compared to a well-baby pediatrician exam. Further research is needed across various contexts of care to confirm the CL and CLalt factor structure.

Impact of Investment

The current research does not support that overall investment or research investment leads to increased patient satisfaction. However, significant correlations between emotional investment and patient satisfaction were identified, meaning that higher satisfaction is associated with the degree to which patients see the selection of their physician as a reflection on themselves. This is a significant finding given the fact that most healthcare organizations are spending more time and resources on detailing health outcomes of various procedures, profiling physician credentials, and advertising access and wait times to their patient populations to help them select a physician that they will be the most satisfied with for care. Current research would support that healthcare marketers would benefit from time spent on making an emotional connection with patients. As healthcare continues to emerge as a commodity/service driven industry, the importance of the research-based, analytical perspective of selecting a physician may become more important, but current findings would support identifying ways to connect to patients on more of an emotional or relationship level. This aligns well with the market research philosophy of "emotional" purchasing power over logical, fact-finding decision making. As Hansen et al. (2004) found, the consumer's emotional investment is a fundamental determinant of buying behavior.   They found that when individuals are faced with large-scale, or important decisions/choices, they oftentimes are overwhelmed with data presented to them and make final decisions based on what they "feel" is the right decision for them. This seems to be consistent with the current research findings. On a practical level, this could incent health plans and providers to a) provide patients

with more information on the image/reputation of the clinic, b) increase information provided about what to expect from various physician-patient relationships, and c) encourage patients to invest time and energy to select the right physician for them. Future research is needed to assess whether research-based investment may be more important in other settings, for example an outpatient surgery situation or more serious health condition. Additional research is recommended to determine factors influencing when patients may be more motivated to invest in selecting a physician, from both a research and emotional investment perspective and its resulting impact on CL, CLalt, and satisfaction.

Impact of Prior Satisfaction

Prior satisfaction was positively associated with current satisfaction. Healthcare providers tend to view each individual experience as unique, while in reality a patient has created an ongoing evaluation system of expectations that evolves based on each encounter. As prior satisfaction guides future expectations and satisfaction, the healthcare community is encouraged to shift from the current static view of patients (e.g. demographics, current satisfaction, current utilization of care) to focus on gaining a better understanding of how patients take into account past experiences and future expectations when determining satisfaction. As providers and administrators better understand these factors, it will provider them with a critical opportunity to manage the overall patient relationship.

Thibault and Kelley (1958) suggest that perceived outcomes of an exchange relationship evolve over time and with additional exchanges. It would be important for further research to assess how CL and CLalt evolve over time in an established physician-patient relationship, and how this may impact overall satisfaction. In addition, the current study identified prior satisfaction and prior expectations post physician office visit. Researchers may benefit from a longitudinal study of how CL, CLalt and satisfaction evolve throughout various types of relationships. Does patient commitment and loyalty increase overtime, thereby reducing attractiveness of alternatives? Do patients typically change physicians until they find one that is right for them? Do our needs and expectations change over time? Further research based on the findings of the current study would add to our understanding of this important concept.

Identification of Distinct CL and CLalt Constructs

One of the most significant results from this research effort was the data indicating clear differentiation of the CL and CLalt constructs. Although the survey items and the mode of administration were similar for these measures, several findings demonstrated that CL and CLalt are in fact different. Findings supporting this notion were a) no significant correlations were found between CL and CLalt; b) CL and all CL subscales significantly correlated with emotional investment; and c) CLalt and CLalt subscales did not significantly correlate with emotional investment. Although further research is needed to develop the CL and CLalt constructs in more robust ways, the fact

that the current research identified differences between them advances our understanding

and demonstrates that CL and CLalt impact satisfaction in meaningful ways.

Patient Satisfaction, CL and CLalt Across Demographics

Given that prior research has found significant differences across income, age,

ethnicity and other demographic variables, it is interesting that none of the demographic

variables indicated significant differences in patient satisfaction, CL, and CLalt. Other

research has found mixed results across various demographics populations, so perhaps

prior studies were limited by sampling challenges or perhaps the current findings may be

attributed to the fact that the study population was somewhat homogenous. Future

research should focus on exploring differences in expectations with a targeted sample for

particular demographic variables to better understand how different populations may

present with different expectations, and different perspectives on alternatives to care.

Limitations

This study suffers from several limitations. Expectations were measured based on

evaluating outcomes compared to the degree expectations were met.   This measurement

process was implemented to simplify the questionnaire for the patients. However, it

would be valuable to parcel out expectations, outcomes and patient satisfaction, to gain a

better understanding of these constructs. It would also allow the researcher to study the

impact of higher or lower expectations for various elements of the experience and

differences in importance of these expectations on overall satisfaction. Additional

research challenges would need to be addressed including: participation concerns with a longer survey, complexity of the survey, and timing of the survey (could measure expectations separate from the measure of outcomes and satisfaction).

Secondly, the results may be impacted by item ordering effects. The survey included a series of three measures that were highly similar in content in the order of 1) satisfaction, 2) CL, and 3) CLalt. It is possible that once patients committed to a level of satisfaction, they may have used this heuristic to respond to further questions, especially given the fact that the satisfaction and CL measures were most similar to each other, by asking about most recent visit. CLalt may have introduced a new idea by asking patients to consider alternatives to care. This may have impacted results showing CL and CLalt as unique constructs.

A third limitation is the issue of multicollinearity. Although factor analysis results indicated fairly independent measures, multicollinearity does exist across survey responses. Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly correlated. Although all non-demographic items were centered to minimize the effects if multicollinearity, the survey items are still correlated and this spillover can impact overall predictive nature of the variables.

A fourth limitation of the study is the possibility of non-response bias, which is a bias that those that responded to the survey are markedly different than those that did respond. A random sample was conducted as part of this survey effort, and one reminder card was mailed to each patient that was sampled. Additional mailed reminder postcards

and perhaps reminder phone calls could have increased participation rates and thereby

minimized the potential of non-response bias. However, the demographic makeup of

those patients returning a survey in terms of age, status, income, and ethnicity aligns very

closely with the total population. Although this alignment does not preclude non-

response bias, it is a strong indication that it is minimized.

A fifth limitation relates to the generalizability of the findings to other

populations. The participants in this study are very homogenous, with only 30% minority

respondents. Despite the fact the respondents in this study reflect the overall population

of patients that visit this particular outpatient clinic; it may not reflect perspectives of the

total healthcare community.

Future Directions

The current research does provide support for the Theory of Interpersonal

Relations as a framework for expectations and how they relate to patient satisfaction.

Future research could explore this framework in terms of defined expectations as opposed

to Comparison of Expectations to Outcomes. A narrower definition of expectations may

lead to different findings regarding the importance of expectations in relationship to

evaluation of outcomes and separately defined measure of satisfaction. By parceling out

these variables, a more comprehensive understanding of how expectations impact

satisfaction may emerge.

Another opportunity for future research is studying CL and CLalt constructs as

they relate to patient loyalty and patient commitment. The current research found support

for CL and CLalt as predictors of patient satisfaction; however patient loyalty was not

included in this research effort. It would be interesting to see if CLalt better predicts

patient loyalty as has been identified in the interpersonal relationship literature using

Thibault and Kelley's theory. Also, building on the work of Oliver (1993), the construct

of commitment may be considered an outcome of satisfaction. Future research in building

a model of patient satisfaction to include elements of loyalty and commitment would

provide a useful framework for the field.

Beyond the theoretical framework of Theory of Interpersonal Relations, other

equity based models may be considered. Perhaps patients may be more likely to evaluate

how much they and their physician put into the relationship, especially earlier on as the

relationship is forming. Reis et al., (2004) suggest that perceived partner responsiveness

(belief that relationship partners care about, understand, and validate, and support an

individual's needs, wishes and desires) is influenced by factors such as individual

differences in personality, expectations, and relationship history. When relationships are

less satisfying, they are characterized by norms of equity where more satisfying

relationships are more communal without keeping tally of benefits given and received.

Given the importance of the physician-provider relationship, models of communal and

equity may add value to the current research as a basis for future research. Perhaps

patients look for equality during the infancy of relationship formation, and if the

relationship builds into a more communal one, patients may be less likely to be critical of

dissatisfactory events over the course of treatment (e.g. less likely to tally benefits given

and received) and less likely to see other alternatives as more attractive. Future research

is needed to explore equity-theories and communal relationships within the context of patient satisfaction and expectations.

Additional work on the role of Emotional Investment and patient satisfaction would be important to the field. There is a drive in healthcare for increased reporting of clinical data and outcomes so that patients will have more information when selecting a physician. The current research did not find a significant relationship between research investment and patient satisfaction, however did find a relationship between emotional investment and patient satisfaction. There is an opportunity for inter-disciplinary research with marketing literature in terms of emotional purchasing theories. Research integrating the work of Hansen et al. (2004) on consumer emotional investment and patient satisfaction would be helpful in advancing understanding of the investment-satisfaction link. In particular research focused on determining when patients might be more motivated to make emotional or research-based healthcare decisions would progress not only the field of patient satisfaction research but would also provide the healthcare community with insight on how to better market services for specific patients' needs. For example, what type of information would be most valuable to patients that are facing life-threatening situations as compared to patients' selecting an Obstetrician for delivering a baby? Also, are there specific types of patients that may be more motivated to invest in emotional information as compared to more evidence based information? Further understanding of the defining factors of emotional investment, and resultant impact on expectations, outcomes, and satisfaction is needed.

Current research is limited to outpatient care experiences. There are many varied types of healthcare encounters including hospitalization, emergency department visits, home health experiences, long term care facilities, and urgent care clinics. Patient satisfaction has been shown to differ based on the type of encounter so it is expected that the generalizability of the current research findings may be limited to outpatient care experiences; therefore research using the framework of Thibaut and Kelley's (1959) theory of interpersonal relations is needed across different healthcare settings.

Given that prior research has identified differences in both satisfaction and expectations by key demographic variables, it is recommended that future research using the current theoretical framework advance understanding of these differences through targeted samples. Work is needed in the area of cultural differences and ethnicity in terms of expectations and satisfaction. Additional research is needed in terms of how patient severity impacts expectations and satisfaction. Research in these areas would significantly advance this body of work, as well as provide healthcare providers with needed information on how to better manage patient expectations and increase patient satisfaction.

Conclusion

The overall research findings have implications for the field of social psychology because it a) was based on a viable and accepted theory applied to a new context of study ; b) identified new predictors and correlates of satisfaction with increased variance explained above most prior research in the field; and c) provided the foundation for

further studies.   Beyond scientific advancement in the field, the current results have implications for the clinical encounter, clinician education, health care administration, health plan policies and the quality of care research agenda. It is hoped that the current findings spark future research interest in the field.

APPENDIX A

LETTER TO PARTICIPANTS

Dear Valued Patient:

Thank you for choosing Ochsner Health System for your most recent healthcare needs. Ochsner is dedicated to continually working to improve the care and services we provide to you.

You have been selected to participate in a special research study which will provide us with additional understanding of what we are doing well to meet or exceed your expectations as well as where we need to improve. We ask that you complete the attached survey about how well we met your expectations of care, as well as your overall satisfaction with your most recent visit.

We thank you in advance for completing this questionnaire which will take about 5-10 minutes. When you have finished, please mail it in the self-addressed postage paid envelope enclosed. Please be assured that any information that you provide us will be combined with other patients that respond to the survey, so your specific answers will be confidential and anonymous. We sincerely want your honest and candid feedback so that we may work to create an even better healthcare experience for you and all of the other patients that seek care from Ochsner.

This specific study is also part of a doctoral research project sponsored by Ochsner Health System. Your responses will contribute to the field of healthcare research.

Again, thanks for your time to complete the survey.

Regards,

Jan S. Brien, M.S., Ph.D (abd)
Assistant Vice President
Human Resources
Ochsner Health System

APPENDIX B

QUESTIONNAIRE

MEDICAL PRACTICE SURVEY

We thank you in advance for completing this questionnaire. When you have finished, please mail it in the enclosed envelope. Please rate the services you received from our practice. Check the box or circle the number that best describes your experience. **If a question does not apply to you, please skip to the next question.** Space is provided for you to comment on good or bad things that may have happened to you.

Please rate your recent visit to Dr.:   **On:**

1. If someone other than the patient is completing this survey, please fill in circle: ○

2. Patient's first visit here ☐ Yes ☐ No

3. Patient's sex   ☐ Male ☐ Female

4. Patient's age _____ (in years)

5. How many minutes did you wait after your scheduled appointment time before you were called to an exam room? _____ Min

6. How many minutes did you wait in the exam room before you were seen by a doctor, physician assistant, nurse practitioner or midwife? _____ Min

A. Prior Experience

Thinking about the physician you saw here last, please answer the following questions:

1. Have you had a visit with this physician in the past year? ☐ Yes ☐ No

2. Would you say that this doctor is your regular doctor? ☐ Yes ☐ No

IF YES TO QUESTION 2, PLEASE ANSWER THE FOLLOWING:

How many years have you been with this physician? _____

How many times have you visited this physician's office in the past year? _____

Think about your prior visits to this physician.
How would you describe the prior visits? (CIRCLE ONE)

1	2	3	4	5
Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected

IF NO TO QUESTION 2, PLEASE ANSWER THE FOLLOWING:

Is your regular doctor within this office/practice? ☐ Yes ☐ No

3. What is your overall rating of care received at your last visit with this physician?

Does Not Apply	1 Very Poor	2 Poor	3 Fair	4 Good	5 Very Good

4. Have you changed physicians in the past year? ☐ Yes ☐ No

IF YES, PLEASE PROVIDE MAIN REASON FOR SWITCHING PHYSICIANS

_____

5. What is your overall rating of care received at other physician offices (not this physician)?

Does Not Apply	1 Very Poor	2 Poor	3 Fair	4 Good	5 Very Good

B. Access to Care: Please rate the services you received from our practice.

	Very Poor	Poor	Fair	Good	Very Good
1. Ease of scheduling your appointment.	1	2	3	4	5
2. Courtesy of the person who scheduled your appointment	1	2	3	4	5
3. Our helpfulness on the telephone	1	2	3	4	5
4. Our promptness in returning your phone calls	1	2	3	4	5
5. Availability of getting an appointment for when you wanted	1	2	3	4	5

Comments (describe good or bad experience _____
_____
_____

C. During Your Visit: Please rate the services you received from our practice.

	Very Poor	Poor	Fair	Good	Very Good
1. Speed of the registration process	1	2	3	4	5
2. Courtesy of staff in the registration area	1	2	3	4	5
3. Comfort and pleasantness of the waiting area	1	2	3	4	5
4. Length of wait before going to an exam room	1	2	3	4	5
5. Comfort and pleasantness of the exam room	1	2	3	4	5
6. Friendliness/courtesy of the nurse/assistant	1	2	3	4	5
7. Concern the nurse/assistant showed for your problem	1	2	3	4	5
8. Skill of the nurse/assistant	1	2	3	4	5
9. Waiting time in exam room before being seen by the care provider	1	2	3	4	5

Comments (describe good or bad experience _____
_____
_____

D. Your Care Provider: Your care was provided primarily by a doctor, physician assistant, nurse practioner, or midwife. Please answer the following questions with that health care provider in mind.

	Very Poor	Poor	Fair	Good	Very Good
1. Friendliness/courtesy of the care provider	1	2	3	4	5
2. Explanations the care provider gave you about your problem or condition	1	2	3	4	5
3. Concern the care provider showed for your questions or worries	1	2	3	4	5
4. Care provider's efforts to include you in decisions about your treatment	1	2	3	4	5
5. Information the care provider gave you about medications (if any)	1	2	3	4	5
6. Instructions the care provider gave you about follow-up care (if any)	1	2	3	4	5
7. Degree to which care provider talked with you using words you could understand	1	2	3	4	5
8. Amount of time the care provider spent with you	1	2	3	4	5
9. Your confidence in this care provider	1	2	3	4	5
10. Likelihood of your recommending this care provider to others	1	2	3	4	5
11. Thoroughness of the exam performed by the care provider	1	2	3	4	5

Comments (describe good or bad experience _____
_____
_____

E. Personal Issues

Please rate the services you received from our practice.

	Very Poor	Poor	Fair	Good	Very Good
1. Convenience of our office hours	1	2	3	4	5
2. Our sensitivity to your needs	1	2	3	4	5
3. Our concern for your privacy	1	2	3	4	5
4. Convenience of parking	1	2	3	4	5
5. Convenience of our location	1	2	3	4	5
6. Ease of obtaining referrals for specialty care	1	2	3	4	5

Comments (describe good or bad experience _____
_____
_____

F. Overall Assessment: Please indicate the extent to which you agree or disagree with each of the following:

	Very Poor	Poor	Fair	Good	Very Good
1.Overall cheerfulness of our practice	1	2	3	4	5
2. Overall cleanliness of our practice	1	2	3	4	5
3. Overall rating of care received during your visit	1	2	3	4	5
4. Likelihood of your recommending our practice to others	1	2	3	4	5

Please indicate the extent to which you agree or disagree with each of the following	Very Dissatisfied	Somewhat Dissatisfied	Satisfied	Somewhat Satisfied	Very Satisfied
1. Overall, how satisfied are you with the most recent visit.	1	2	3	4	5
2. Overall, how satisfied are you with all other doctors that you have seen in the past (not including this one).	1	2	3	4	5

Please indicate the extent to which you agree or disagree with each of the following	Strongly Disagree	Somewhat Disagree	Agree	Somewhat Agree	Strongly Agree
1. I would highly recommend my physician/office to my friends and family.	1	2	3	4	5
2. I am likely to make negative comments about my physician/office to my friends and family.	1	2	3	4	5
3. If I had to pay more for the care received by this physician, I would still continue to be a patient of this physician.	1	2	3	4	5
4. If I could pay less for my care from another physician, I would switch.	1	2	3	4	5
5. If I could pay the same for care elsewhere, I would switch.	1	2	3	4	5

6. How would you describe your overall health status?

1	2	3	4	5
Very Poor	Poor	Fair	Good	Very Good

G. Investment: Please indicate the extent to which you agree or disagree with each of the following statements

	Strongly Disagree	Somewhat Disagree	Agree	Somewhat Agree	Strongly Agree
1. I constantly compare the services offered by various physicians in my area.	1	2	3	4	5
2. I researched multiple physicians/offices in the area before I decided to book an appointment with this physician's office.	1	2	3	4	5
3. I compared the services of physicians/ offices in my area before I selected my current physician.	1	2	3	4	5
4. After deciding to receive care from this physician, I discussed my choice with family and friends.	1	2	3	4	5
5. After deciding to receive care from this physician/office, I have compared this physician's office with other physicians' offices in the area.	1	2	3	4	5
6. After deciding to receive care from this physician/office, I have weighed the pros and cons of my choice.	1	2	3	4	5
7. The image or reputation of this physician's office played a major role in my decision to become a patient of this office.	1	2	3	4	5
8. The physician I visit says a lot about who I am.	1	2	3	4	5
9. It is important for me to choose a physician/office that "feels" right.	1	2	3	4	5

H. Access to Care: Think about when you scheduled your appointment for your most recent visit. Indicate the degree to which your expectations were met.

	Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected
1. Ease of scheduling your appointment.	1	2	3	4	5
2. Courtesy of person who scheduled your appointment.	1	2	3	4	5
3. Our helpfulness on the telephone.	1	2	3	4	5
4. Promptness in returning your phone calls.	1	2	3	4	5
5. Availability of getting an appointment for when you wanted.	1	2	3	4	5
6. Overall, the access to care for this visit was...	1	2	3	4	5

Think about other physician offices that are available to you for your care. Please indicate how other offices available to you compare to your current office.	Much better than my current provider	Somewhat better than my current provider	The same as my current provider	Somewhat worse than my current provider	Much worse than my current provider
1. Ease of scheduling an appointment at another physician office.	1	2	3	4	5
2. Courtesy of other physician office staff who would schedule your appointment.	1	2	3	4	5
3. Helpfulness of other physician offices on the telephone.	1	2	3	4	5
4. Other physician offices promptness of returning your phone call.	1	2	3	4	5
5. Availability of getting an appointment when you want it at other physician offices.	1	2	3	4	5
6. Overall, access to care from other physician offices is ...	1	2	3	4	5

I. During Your Visit: Think about when you visited your physician for your most recent visit. Indicate the degree to which your expectations were met.

Think about when you scheduled your most recent appointment. Please indicate the degree to which your expectations were met.	Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected
1. Speed of the registration process.	1	2	3	4	5
2. Courtesy of staff in the registration area.	1	2	3	4	5
3. Comfort and pleasantness of the waiting area.	1	2	3	4	5
4. Length of wait before going to an exam room.	1	2	3	4	5
5. Comfort and pleasantness of the exam room.	1	2	3	4	5
6. Friendliness/courtesy of the nurse/assistant.	1	2	3	4	5
7. Concern the nurse/assistant showed for your problem.	1	2	3	4	5
8. Skill of the nurse/assistant.	1	2	3	4	5
9. Waiting time in exam room before being seen by the care provider.	1	2	3	4	5
10. Overall during my visit when I went from the front registration to meeting with the nurse/assistant, my care was…	1	2	3	4	5

Think about other physician offices that are available to you for your care. Please indicate how other offices available to you compare to your current office.	Much better than my current provider	Somewhat better than my current provider	The same as my current provider	Somewhat worse than my current provider	Much worse than my current provider
1. Speed of the registration process at other physician offices.	1	2	3	4	5
2. Courtesy of staff in the registration area at other physician offices.	1	2	3	4	5

	Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected
3. Comfort and pleasantness of the waiting area at other physician offices.	1	2	3	4	5
4. Length of wait before going to an exam room at other physician offices.	1	2	3	4	5
5. Comfort and pleasantness of the exam room at other physician offices.	1	2	3	4	5
6. Friendliness/courtesy of the nurse/assistant at other physician offices.	1	2	3	4	5
7. Concern the nurse/assistant would show for your problem at other physician offices.	1	2	3	4	5
8. Skill of the nurse/assistant at other physician offices.	1	2	3	4	5
9. Waiting time in exam room before being seen by other care providers.	1	2	3	4	5
10. Overall at other physician offices, my visit from the front registration desk to meeting with the nurse/assistant for my care would be…	1	2	3	4	5

J. About Your Care Provider: Physician, Nurse Practioner, Physician Assistant, Mid-Wife

Think about your current care provider. Please indicate the degree to which your expectations were met.	Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected
1. Friendliness/courtesy of the care provider.	1	2	3	4	5
2. Explanations the care provider gave you about your problem or condition.	1	2	3	4	5
3. Concern the care provider showed for your questions or worries.	1	2	3	4	5
4. Care provider's efforts to include you in decisions about your treatment.	1	2	3	4	5

	Much better than my current provider	Somewhat better than my current provider	The same as my current provider	Somewhat worse than my current provider	Much worse than my current provider
5. Information the care provider gave you about medications (if any).	1	2	3	4	5
6. Instructions the care provider gave you about follow-up care (if any).	1	2	3	4	5
7. Degree to which care provider talked with you using words you could understand.	1	2	3	4	5
8. Amount of time the care provider spent with you.	1	2	3	4	5
9. Your confidence in this care provider.	1	2	3	4	5
10. Thoroughness of the exam performed by the care provider.	1	2	3	4	5
11. Overall my care provider treated me....	1	2	3	4	5

Think about other care providers that are available to you for your care. Please indicate how other care providers available to you compare to your current care provider.	Much better than my current provider	Somewhat better than my current provider	The same as my current provider	Somewhat worse than my current provider	Much worse than my current provider
1. Friendliness/courtesy of other care providers.	1	2	3	4	5
2. Explanations that other care provider would give you about your problem or condition.	1	2	3	4	5
3. Concern that other care providers would show you for your questions or worries.	1	2	3	4	5
4. Other care provider's efforts to include you in decisions about your treatment.	1	2	3	4	5
5. Information that other care providers would give you about medications (if any).	1	2	3	4	5
6. Instructions that other care providers would give you about follow-up care (if any).	1	2	3	4	5
7. Degree to which other care providers would talk with you using words you could understand.	1	2	3	4	5
8. Amount of time other care providers would spent with you.	1	2	3	4	5

	Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected
9. Your confidence in how other care providers would be…	1	2	3	4	5
10. Thoroughness of an exam performed by other care providers.	1	2	3	4	5
11. Overall, other care providers would treat me…	1	2	3	4	5

K. About Your Personal Needs: Think about your most recent visit. Please indicate the degree to which your expectations were met.

	Much worse than I expected	Somewhat worse than I expected	Just what I expected	Somewhat better than I expected	Much better than I expected
1. Convenience of our office hours.	1	2	3	4	5
2. Our sensitivity to your needs.	1	2	3	4	5
3. Our concern for your privacy.	1	2	3	4	5
4. Convenience of parking.	1	2	3	4	5
5. Convenience of our location.	1	2	3	4	5
6. Ease of obtaining referrals for specialty care.	1	2	3	4	5
7. Overall rating of how well we took care of your personal needs.	1	2	3	4	5

Think about other physician offices that are available to you for your care. Please indicate how other offices available to you compare to your current office.	Much better than my current provider	Somewhat better than my current provider	The same as my current provider	Somewhat worse than my current provider	Much worse than my current provider
1. Convenience of office hours at other physician offices.	1	2	3	4	5
2. Sensitivity to your needs at other physician offices.	1	2	3	4	5
3. Concern for your privacy at other physician offices	1	2	3	4	5
4. Convenience of parking at other physician offices.	1	2	3	4	5
5. Convenience of the location of other physician offices.	1	2	3	4	5
6. Ease of obtaining referrals for specialty care at other physician offices.	1	2	3	4	5
7. Overall rating of how well other physician offices would take care of your personal needs.	1	2	3	4	5

L. Demographic Information: **Please provide information about yourself in the section below. This is strictly for research purposes and will not be connected to your medical record or confidential information.**

1. What do you consider to be your main racial or ethnic group?   (CHECK ONE)

☐ White (not of Hispanic origin) ☐ Asian or Pacific Islander

☐ Black or African-American (not of Hispanic origin) ☐ American Indian or Alaskan Native

☐ Hispanic or Latino ☐ Other: _____

2. How would you describe your status?   (CHECK ONE)

☐ Married ☐ Single

☐ Separated ☐ Divorced

☐ Widowed

3. How many years of education have you completed?

☐ Less than 10 years ☐ 13-16 years

☐ 10-12 years ☐ 17 or more years

4. What is the annual income of your household? (WRITE INCOME) $_____

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VITA

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While at Loyola, Jan worked full time at Parkside Associates, Inc, a consulting firm associated with Advocate Health Care, Chicago, Illinois. She advanced from a Research Assistant to Director of Client Services, Research, and Human Resources across her tenure with Advocate. She also served as a critical member of the transition team in 2000, when Parkside Associates, Inc. was acquired by survey research and consulting firm, Press Ganey, Inc.

Following her tenure with Parkside/Press Ganey, Jan assumed the role of Director, Organizational Development for Ochsner Health System, New Orleans, Louisiana where she was managed the Ochsner Leadership Institute and all educational programs for nearly six years. Most recently Jan advanced to the role of Vice President of Human Resources for Ochsner's flagship campus, Ochsner Medical Center-New Orleans and is responsible for the delivery of Human Resources services and programs for over 5,000 employees. She resides in New Orleans, Louisiana.