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# Determinants of job satisfaction and turnover among physicians.

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DETERMINANTS OF JOB SATISFACTION AND TURNOVER AMONG  
PHYSICIANS

A Thesis

Presented To

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Dustin Kaplan

December 2009

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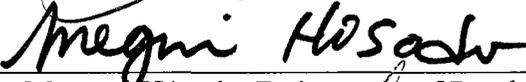
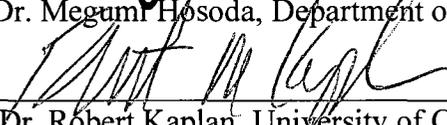
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SAN JOSE STATE UNIVERSITY

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DETERMINANTS OF JOB SATISFACTION AND TURNOVER AMONG  
PHYSICIANS

By  
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## ABSTRACT

### DETERMINANTS OF JOB SATISFACION AND TURNOVER AMONG PHYSICIANS

by Dustin P. Kaplan

This study examined the determinants of job satisfaction and turnover among physicians at the University of California, San Diego. The relationship between eight predictor variables (administrative requirements, autonomy, ability to provide quality patient care, workload, work/private life conflict, pay, satisfaction with community, locus of control) and two dependent variables (job satisfaction, turnover intentions) was studied. Results indicated physicians' satisfaction with their current position was related to their perceptions of their autonomy, workload, work/private life conflict, pay, and community satisfaction. In addition, all predictors except workload had an impact on physicians' satisfaction with the current career. The only predictor that influenced the likelihood of leaving was community satisfaction. The implications of these findings are discussed.

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## Introduction

Voluntary turnover among physicians is a serious problem with grave implications for physicians, the organizations they work for, and the patients under their care. The costs of a job change to physicians are significant. The act of searching for a new job can be a strenuous and very stressful experience. If the physician quits prior to finding a new job he or she could experience significant financial strains. Buchbinder, Melick, and Powe (1999) estimated that a general or family practice physician unemployed between one and three months could lose between \$7,531 and \$22,593.

The costs of losing a physician might be even greater for hospitals. Hiring a new physician requires recruitment, administrative issues, training, orientation, and many other tasks. The cost of physician recruitment and training are estimated to be between \$240,000 and \$265,000 (Devoe, Fryer, Hargraves, Phillips, & Green, 2002). In addition to the financial implications, losing quality physicians can create organizational instability. Integrating a new primary care physician (PCP) into a practice can take a considerable amount of time. During this initiation phase, other (PCP's) can be expected to take on a larger patient load and they face extra sources of stress (Buchbinder, Wilson, Melick, & Powe, 2001).

Perhaps the greatest consequence of physician turnover is its effect on patient care. Turnover can lead to an inaccessibility of physicians to patients (Devoe et al. 2002). It takes time for a practice to replace an exiting physician. During the time from when a physician leaves to when another is hired and trained, there is a reduction in the capacity to care for patients. In the longer term, turnover can disrupt the physician-

patient relationship that could have taken a long time to develop. Patient satisfaction is affected by the ability to generate and maintain relationships with physicians (Buchbinder et al., 2001).

### *Turnover*

For years researchers have tried to understand and explain the process of voluntary turnover. Many of the theories of turnover view it as a result of employee job dissatisfaction (Spector, 1997). Reviews of literature on the relationship between turnover and job satisfaction consistently find a negative relationship (Mobley, 1977; Judge & Church, 2000). Further longitudinal studies have shown that job satisfaction has causal effects on turnover (Spector, 1997). When employees are dissatisfied with their current jobs they often seek out new jobs.

Although job satisfaction has consistently been linked to turnover, the relationships reported have only been modest (Baron & Greenberg, 2000). Many theories have attempted to explain the modest relationship between job satisfaction and turnover by explaining turnover not as a direct result of job dissatisfaction, but as a process of steps initiated by an employee experiencing job dissatisfaction (March & Simon 1958; Locke, 1968; Mobley, 1977). According to Mobley (1977), the process of turnover begins with an evaluation of one's existing job which results in either job satisfaction or dissatisfaction. If the employee experiences dissatisfaction, thoughts of quitting will ensue. Once dissatisfied, the employee goes through a process of searching and evaluating alternative sources of employment. If the employee evaluates a possible alternative job higher than the current job the employee will develop intentions to quit.

Intention to quit is considered the immediate antecedent of turnover (Lee, Mitchell, Holtom, McDaniel, & Hill, 1999).

It has become clear that factors moderate the relationship between job satisfaction and turnover. One moderator in the job satisfaction-turnover relationship is the availability of alternative jobs. It makes intuitive sense that most people would not leave their current job without having reasonable confidence in their ability to find another job. Evidence for this has been reported by Carsten & Spector (1987), who reviewed previous turnover studies while determining unemployment rates for the time periods in which data were collected. When unemployment rates were low the correlation between job satisfaction and turnover was higher than when the unemployment rates were high. Carsten & Spector reasoned that when the unemployment rate is low people realize that they have other job opportunities.

### *Job Satisfaction*

Although there are clearly factors that affect turnover, job satisfaction is at the foundation of many turnover theories (March & Simon 1958; Locke, 1968; Mobley, 1977). Job satisfaction is “a pleasurable or positive emotional state resulting from the appraisal of one’s job experiences” (cf. Buchbinder et al., 2001).

Physician job satisfaction is of utmost importance to the field of medicine. Physicians who are dissatisfied with their jobs have been shown to experience a decrease in mental and physical health and increases in burnout (cf. Williams & Skinner, 2003). In addition to experiencing mental and physical health problems, dissatisfied physicians have also been shown to have riskier prescribing profiles, have less satisfied patients, and

are more likely to quit (Stoddard, Hargraves, & Vratil, 2001). Dissatisfied physicians may also dissuade future students from entering the field of medicine.

Job satisfaction among physicians is an issue that is of increasing importance at the present time. In the past the medical profession was held in high regard. The position of physician was seen as very desirable and the job satisfaction of physicians was rarely questioned. Changes in the medical profession have caused these perceptions to be altered. In fact, a study by the Kaiser Foundation (2002) reported that 87% of physicians responding to the survey said that the overall morale of physicians had decreased in the past five years. Along those lines, 58% reported that their own enthusiasm for practicing medicine had decreased and 45% said they would not recommend the practice of medicine to a young person.

So what has changed? There are a number of explanations. First, the setting in which physicians work is changing. Today there are significantly fewer self-employed physicians. In 1983, 23% of practicing PCPs reported being employed (as opposed to self-employed). By 1995 the number of employed physicians had grown to 48% (Buchbinder, Melick, & Powe, 2001). The change in employment status is due in large part to managed care. From 1991 to 1996 Health Maintenance Organizations (HMOs) had grown from covering 35 million lives to covering 66.8 million lives (Buchbinder et al., 2001)

The changes in employment status have greatly affected physician work life. Physicians who used to practice alone or in small groups now practice in larger groups and have had their autonomy restricted greatly. Physicians are subject to profiling,

utilization review, and pre-approval for treatment. Profiling occurs when characteristics of physician performance, such as number of patients seen per session, or number of tests ordered, are recorded by managers. These indicators are used to give feedback and components of physician reimbursement may be made contingent on these profiles. Utilization review considers the rate at which expensive tests or services are ordered by particular physicians. The review is used to capture outliers. Pre-approval is a process that requires physicians to gain authorization for the use of specified treatments or tests. Physicians are also expected to follow prescribed guidelines, use decision tools supplied by others, and they now face patients who are much more informed about treatment options and procedures (Landon, Aseltine, Shaul, Miller, Auerbach, & Clerary, 2002).

These changes have adversely affected physicians' incomes. Prior to changes physicians primarily worked on a fee for service basis. Managed Care health insurance plans have implemented administrative mechanisms as well as financial incentives (capitation, with-holds, bonuses, reduced fees, fee schedules, incentive compensation) designed to restrict the amount of care provided by physicians (Hadley & Mitchell, 2002). Physicians have argued that these changes in addition to restricting their income levels have reduced their patients' trust in them and have diminished the overall quality of care that they are able to provide (Reschovsky, Reed, Blumenthal, & Landon, 2001)

#### *Predictors of Job Satisfaction*

Factors affecting job satisfaction have been classified into two major categories (Spector, 1997). The first category, the job environment, includes factors such as how people are treated, the nature of job tasks, relations with coworkers, and rewards. The

second category includes characteristics of the individual, personality, and experience (Spector, 1997). Research on physician job satisfaction can be classified according to these two categories. In the following sections the variables found to be the most important to physician job satisfaction are introduced and findings are discussed. Not all studies discussed assess job satisfaction directly however some discuss outcomes related to satisfaction, such as stress and burnout.

### *Job Environment*

*Administrative requirements.* Administrative requirements in medical practice are becoming increasingly burdensome to physicians. The workday of physicians is often filled with paperwork and time spent dealing with insurers which often cuts into patient time (Williams & Cockrell-Skinner, 2002). In a national survey of physicians by Kaiser (2002) the most frequently cited reason for physicians not recommending the practice of medicine was paperwork and administrative hassles. Pathman et al., (2002) reported that physicians were least satisfied with the administrative requirements of their work however, physicians dissatisfaction with administrative requirements was not related to turnover.

*Autonomy.* Professional autonomy on an individual level encompasses both the aspects of work derived from one's medical expertise (i.e., clinical decision making and the need to obtain needed medical services for patients) as well as having control over work such as autonomy to structure one's schedule (Stoddard et al., 2001). Professional autonomy has been a popular variable in the job satisfaction literature. Autonomy leads

to feelings of responsibility which is important component of job satisfaction (Hackman & Oldham, 1980).

The effects of autonomy on the physician profession have been studied in a number of different ways. Baker, Cantor, Miles, & Sandy (1994) found that physicians who held the perceptions that they had no control over their practice were the most likely to report dissatisfaction both in their current practice as well as in their careers. Control of practice referred to work hours, time spent with patients, and access to resources for patients.

Stoddard et al. (2001) found that managed care exerts its effect on career satisfaction through its impact on professional autonomy. The negative effects of managed care in the study disappeared after controlling for professional core values and autonomy. The results suggest that the limitations managed care can impose on practice autonomy and professionalism explain a significant portion of the variance in physician job satisfaction. Schmoldt, Freeborn, & Klevit (1994) found autonomy was related to burnout in HMO doctors. In the study physicians felt that the HMO interfered with their professional autonomy and they were dissatisfied with their ability to impact the work environment, their participation in decision making, and their control over schedules. According to the study burned out physicians are less committed to the HMO and are less likely to be retained.

*Ability to provide quality patient care.* In the medical profession there is an emphasis on altruism and helping those in need. Most of the time physicians are expected to place the needs of the patient ahead of their own self-interest. The profession

embodies values such as honesty, integrity, respect, and empathy (Stoddard et al., 2001). Most doctors enter the field of medicine to help people. For this reason the ability to provide high quality patient care is very important in their job satisfaction.

DeVoe et al., (2002) in fact found that the strongest factors associated with dissatisfaction among family practice physicians were not practice characteristics but their perceptions about their ability to take good care of their patients. Time with patients, freedom to make clinical decisions about their patients' needs, sufficient communication with specialists, freedom to make clinical decisions without financial conflicts of interest, the ability to maintain continuing relationships with patients, and the ability to provide high quality care were all factors that affected dissatisfaction.

Stoddard et al. (2002) found similar results. In their study the strongest determinants of career satisfaction were factors relating to patient care such as maintaining relationships with patients, the ability to obtain necessary services for patients, having sufficient communication with specialists and working in environments conducive to providing quality care.

*Workload.* Workload is defined as demands placed on the employee by the job (Spector, 1997). Excessive job demands can often lead to job dissatisfaction, stress, and burnout all of which can influence retention. Workload is often studied in two different ways. One way is qualitative workload, which refers to the difficulty of job tasks either physical or mental (Spector, 1997). One aspect of qualitative workload affecting physicians is time pressure. Working under intense time pressure has been shown to cause stress and job dissatisfaction (Visser, Smets, Oort, & de Haes, 2003) as well as

burnout (Schmoldt et al., 1994). Aside from working under intense time pressure, other demanding aspects of physicians' work, for instance addressing complex life threatening problems (Schmoldt et al., 1994), have been associated with burnout.

A second way to look at workload, quantitative workload, refers to the amount of work that an employee completes (Spector, 1997). In a study by Lemkau, Rafferty, & Gordon (1994) both seeing a greater number of hospitalized patients as well as the amount of hours worked per week were related to emotional exhaustion, a symptom of burnout.

Mainous, Ramsbottom-Lucier, & Rich (1994) found that it was the physicians' satisfaction with their workload as opposed to their absolute workload that was related to the retention of young rural primary care physicians. Likewise, Mainous et al. (2001) found a very strong association between physicians' dissatisfaction with their workload and intent to leave (cf. Williams, 2001).

*Work/private life conflict.* Opportunities for time away from work may also influence job satisfaction. Excessive time demands or odd hours can cut into physicians' personal time away from work. Gosden, Bowler, & Sutton (2000) studied UK physicians' preferences for practices and job characteristics and found that General Practitioners had a strong preference for practices offering opportunities to develop outside interests. In their study of Dutch physicians Visser et al. (2001) found that work intruding into physicians' private lives was a contributor to the stressfulness of the job. Lemkau et al. (1994) reported that physicians who had more interruptions of personal

time with night and weekend calls experienced more emotional exhaustion, a symptom of burnout.

*Pay.* Pay has been a very commonly researched variable in the job satisfaction literature. Physician pay and its effects on job satisfaction has become increasingly relevant because of the changing nature of the way physicians are compensated. Previously physicians were paid primarily on a fee-for-service basis. In recent years, payment mechanisms have changed. Managed care organizations have implemented a variety of financial incentives (e.g., capitation, with-holds, bonuses, reduced fees, fee schedules, incentive compensation) that have had a major impact on compensation (Hadley & Mitchell, 2002). Surprisingly the literature on physician compensation and job satisfaction yielded mixed results. In a study of factors influencing recruitment and retention of family physicians by Krause (1995), physicians ranked income in the lower half of the thirty-one variables at the time of recruitment and three years later when retention was studied. Likewise Sibbald et al. (2000) reported a non-linear relationship between pay and overall job satisfaction among general practitioners in Great Britain suggesting that pay may not be directly effect overall job satisfaction.

Research on pay and job satisfaction has yielded the opposite results as well. In a study of the growth of managed care and its effects on physician satisfaction Hadley & Mitchell (2002) found income to be an important determinant in physicians' satisfaction with their practices and careers. DeVoe et al. (2002) also found that income affected satisfaction. They reported that physicians earning less than \$100,000 a year were more dissatisfied. Pay not only has been related to satisfaction among physicians but also it

has been directly related to turnover. Pathman et al. (2002) found relative dissatisfaction with pay was related to turnover with all of the studies' physician groups except physicians over the age of 55.

*Community satisfaction.* Community satisfaction refers to the physicians' satisfaction with the community they live in as well as how they feel the community respects their practice. For obvious reasons the community in which one lives and works is very important to their happiness. People want to live in a place where they feel comfortable and secure. In a study of recruitment and retention of family doctors Crouse (1995) found that some of the highest ranked variables influencing retention had to do with community. Physicians felt that community acceptance of their practice, the quality of their children's lifestyle, and opportunities for recreation would influence their retention Pathman et al. (2002) likewise found that relative dissatisfaction with ones community was related to departure plans among all physician groups.

#### *Characteristics of the Individual*

*Locus of control.* Psychological locus of control is a cognitive variable that represents an individual's generalized belief in his or her ability to control their own environment (Benardi, 2003). The concept assumes that everyone develops a general concept regarding their personal ability to control all aspects of their life ( Kircaldy, Shephard, Furnham, 2002). This concept is developed by the reinforcement of a person's expectations over a period of time (Reed, Kratchman, Strawser, 1994). According to Rotter (1966) individuals who believe that the outcomes in their lives are a result of their own behavior, ability, personality, or effort are said to have an internal locus of control.

They are often referred to as “internals.” People who believe that the outcomes of events in their lives are caused by something outside of their control are said to have an external locus of control and are called “externals.” Externals may believe that the events in their lives are caused by luck, chance, fate, god, or powerful others (Kircaldy et al., 2002).

People with a high internal locus of control tend to have higher aspirations, to be more persistent, to respond more to challenge, and to see themselves as a source of their own success (cf. Kircaldy et al., 2002). Internals also believe that the probability of attaining goals is directly related to their effort and ability to learn from past experiences (Bernardi, 2003).

Locus of control has been found to be significantly correlated with various work variables, i.e., job performance, leadership behavior, motivation, and job satisfaction (cf. Spector, 1997). The more internal the person’s locus of control, the higher his or her job satisfaction (O’Brien, 1982, Spector, 1982) According to Snead and Harrell’s (1991) model, individuals high in internal locus of control see a relationship between their effort and positive job outcomes, therefore they are more motivated and willing to work harder to achieve their goals. This should enhance ones sense of achievement, which Snead and Harrell find is negatively associated with work stress and job dissatisfaction. Since these individuals perceive less stress they should have higher job satisfaction and thus retention should increase (Benardi, 2003).

#### *Limitations of Previous Research*

Many previous studies have looked at sources of physician dissatisfaction. Several studies have examined the relationship between satisfaction and turnover

(Pathman et al., 20002; Buchbinder et al, 2001) as well as physician career satisfaction (Buchbinder et al., 2001). Studies have also considered the effects of managed care on satisfaction (Baker et al., 1994; Stoddard et al., 2001) and stress and burnout among physicians has been researched (Lemkau et al., 1994; Visser et al., 2001). Aside from the various dependent variables across studies, different physician populations have been studied as well. These populations include primary care physicians (Buchbinder et al , 2001) family physicians (Krause, 1995), rural physicians (Pathman, Williams, Konrad, 1996) as well as HMO physicians (Schmoldt et al., 1994).

### *The Present Study*

The current study is intended to add to the physician job satisfaction and turnover literature in a number of different ways. First, the study hopes to clarify disagreement in the literature about the effects of different predictors of satisfaction. There is, for example, disagreement in the literature about the effects of pay on satisfaction. There is also some disagreement about which variables are the strongest predictors of satisfaction. Second, few studies have measured turnover. The present study will measure intention to quit which is the best predictor of turnover. Third, there appears to be no previous study of physician satisfaction and turnover that has included a personality variable as a predictor. The literature on job satisfaction suggests that characteristics of the person, not solely characteristics of the job, are important to job satisfaction. For this reason locus of control will be studied as a possible predictor of physician job satisfaction and turnover. Fourth, although many of the predictors applied in this study have been applied in various studies of physician job or career satisfaction or turnover, not all have been used in the

same study addressing the population of family physicians and general internal physicians. The current study will look at all eight predictors and their effects on job satisfaction and intention to quit among family doctors and general internal physicians. Last the predictors will be compared.

*H1: Physicians who perceive their administrative requirements to be excessive will be less satisfied with their current position, less satisfied with their career, and more likely to turnover.*

*H2: Physicians who perceive their job to have a low degree of professional autonomy to be will be less satisfied with their current position, less satisfied with their career, and more likely to turnover.*

*H3: Physicians who perceive they have the ability to provide high quality care to their patients will be more satisfied with their current position, more satisfied with their career, and less likely to turnover.*

*H4: Physicians who perceive their workload to be excessive will be less satisfied with their current position, less satisfied with their career, and more likely to turnover.*

*H5: Physicians who perceive a balance in their life between work and their private life will be more satisfied with their current position, more satisfied with their career, and less likely to turnover.*

*H6: Physicians who perceive their pay to be fair will be more satisfied with their current position, more satisfied with their career, and less likely to turnover.*

*H7: Physicians who are satisfied with the community that they live in will be more satisfied with their current position, more satisfied with their career, and less likely to turnover.*

*H8: Physicians who with a high locus of control will be more satisfied with their current position, more satisfied with their career, and less likely to turnover.*

## Method

### *Participants*

Questionnaires were distributed to physicians associated with three different medical groups in southern California. Thirty completed surveys were returned. Because large packets of surveys were distributed to the three different hospitals and only completed surveys were returned the researchers have no way to calculate an exact response rate. Sixteen males (53.3%) and 13 females (43.3%) completed the survey. The ethnicity of the respondents was as follows, 19 Caucasians (63.3%), six Asian/Pacific Islanders (20%), three Hispanics (10%), one African American (3.3%), and one specified other (3.3%). Twenty one participants were married (70%), six have never been married (20%), and 3 (10%) were divorced. Nineteen physicians (63.3%) have children. Fourteen of the participants have worked in their current position for 0-3 years (46.7%), ten for 4-8 years (33.3%), three for 9-13 years (10%), two for 14-18 years (6.7%), and one participant had been in his position for more than 18 years. Fifty percent of the participants were internal medicine physicians while 50% were family medicine physicians. In summary, the sample was equally represented by Internal Medicine physicians and Family Medicine physicians the majority of which have been in their current position for less than three years. The sample had nearly equally numbers of males and females. The participants were primarily Caucasian, married, and had children.

## *Measures*

Data were collected via a structured survey (see Appendix A) that included a number of work aspect scales and demographic and job-related information.

Demographic and job-related information included gender, marital status, parental status, number of children, ethnicity, and tenure in a physician's current position. Participants were not asked to disclose names. The questionnaire was approved by the committee for the protection of human subjects at both the University of California San Diego and San Jose State University.

*Administrative requirements.* This scale was designed to assess the physicians' perceptions about their administrative responsibilities. It was the physicians' perceptions about their administrative requirements as opposed to an actual measure of the amount of administrative work that was assessed. The scale included two items. The first item was, *I am burdened with an excessive amount of administrative responsibilities.* The second item was, *I am asked to do excessive amounts of paperwork.* Response options were on a 5 point Likert scale ranging from Strongly Disagree to Strongly Agree. The participant's score on the two items was averaged to give them a scale score for administrative requirements. High scores on this scale mean that the physician feels that his or her administrative requirements are excessive while low scores mean that the physician feels that the administrative requirements are reasonable. The Cronbach alpha for the administrative requirement scale was .19.

*Autonomy.* This scale was designed to assess the physicians' perceptions about how much control and or authority they have in their work as it is related to patient care

as well as other aspects of the job. The scale consisted of two items. One item included was, *I feel that I have the authority to make decisions influencing my patients*. The second item on this scale was, *I feel that I am in control of aspects of my work not related to patient care*. Response options on the scale were on a 5 point Likert scale ranging from Strongly disagree to Strongly Agree. The participant's score on the two items was averaged to give the individual a scale score. High scores on the scale indicate that the physician feels that he or she does not have the autonomy to make decisions regarding all aspects of their work. The Cronbach alpha for the scale was .73

*Patient care*. This scale was designed to assess physicians' perceptions about their ability to provide quality care for their patients. The scale consisted of five items. An example item on the scale was, *I am able to obtain necessary services for my patients*. The response options on this scale were on a 5 point Likert scale ranging from Strongly Disagree to Strongly Agree. The participant's score on the five items was averaged to create a scale score. High scores on this scale indicate that the physician feels he or she is unable to provide quality care for patients. The Cronbach alpha for the scale was .76.

*Workload*. This scale was designed to assess physicians' perceptions about their workload. The scale consisted of three items. An example item was, *I am asked to see too many patients per day*. The response options for the scale were on a five point Likert scale ranging from Strongly Disagree to Strongly Agree. The participant's score on the three items was averaged in order to create a scale score. High scores on the scale indicate that the physician feels his or her workload is excessive. The Cronbach alpha for this scale is .76.

*Work/private life conflict.* This scale was designed to assess physicians' perceptions about the balance they are able to achieve between work and private life. Specifically the researcher was interested in finding out if the physicians felt that their work afforded them the ability to have sufficient time for their personal lives. The scale consisted of two items. *The first item on the scale was, I am able to have a life outside work.* The second scale item was, *My work schedule often conflicts with my family time.* The response options for the scale were on a five point Likert scale ranging from Strongly Disagree to Strongly Agree. The participants score on the two items was averaged in order to create a scale score. High scores on this scale indicate that the physician feel their work interferes with their ability to have a life outside of work. The Cronbach alpha for this scale was .69.

*Pay.* This scale was designed to assess physician's perceptions about their salary specifically, the extent to which the physician felt he or she was receiving a fair salary for the work he or she was doing. The scale consisted of four items. One item on the scale was, *I am underpaid for the job I do.* The response options for the scale were on a five point Likert scale ranging from Strongly Disagree to Strongly Agree. The participants score on the four items was averaged to create a scale score. High scale scores indicate that the physician feels he or she is not receiving fair pay for the job that they do. The Cronbach alpha for this scale was .80.

*Community.* This scale was designed to assess physician's perceptions about the community they live in as well as how they feel the community respects their practice. The scale consisted of three items. An example item was, *I feel that my community*

*respects our medical group.* The response options for the scale ranged from Strongly Disagree to Strongly Agree. The participants score on the three items was averaged in order to create a scale score. High scale scores indicate that the physician is unhappy with his or her community. The Cronbach alpha for this scale was .70.

*Locus of control.* The Internal-External Locus of Control Scale designed by Levenson (1981) was included in the questionnaire. The scale was modified in order to be congruent with the rest of the scales and also in order to cut back the amount of questions asked. The original scale consisted of 24 items on three scales, Internality (I), Powerful Others (P), and Chance (C). Only the Internality (I) scale was used. The (I) scale was designed to measure the extent to which people believe they have control over their own lives. The scale consisted of eight items. One item was, *I can pretty much determine what will happen in my life.* The original scale was measured on a 7 point Likert scale ranging from Strongly Disagree to Strongly Agree however the current scale was modified to a 5 point Likert scale ranging from Strongly Disagree to Strongly Agree. The participants score on the eight items was summed to create a Locus of Control scale score. High scores on this scale indicate that the person has an Internal locus of control, meaning they believe they have control over the outcomes in their lives. Low scores indicate that the participant believes that outcomes in their lives are not necessarily the results of their own actions rather perhaps, chance, powerful others, or circumstances outside of their control. The Cronbach alpha for this scale was .82

*Satisfaction.* Two types of satisfaction were measured, job satisfaction and career satisfaction. Job satisfaction was assessed with the question, *I am satisfied with*

*my current position.* Career satisfaction was assessed with the question, *I am satisfied with my choice to become a primary care physician.* Both satisfaction items were measured on a five point Likert scale ranging from Strongly Disagree to Strongly Agree. A high score on each item indicated agreement with the statements thus, high satisfaction.

*Turnover intentions.* Turnover intentions were measured in two different ways. First was asking physicians, *what is the likelihood you will leave your current position within the next three years?* This was intended to measure intention to quit which according to Mobley (1977) is a precursor to actual turnover. The physicians were given five the following response possibilities, 0%, 1-40%, 41-60%, 61-99%, and 100%. Turnover was also assessed more directly with the question, *Have you applied for another job in the last 12 months?* This was asked as a yes or no question.

#### *Procedure*

Surveys were distributed to managers of three separate medical facilities in the Southern California area. The surveys were distributed at meetings. Respondents were asked to complete the surveys and place the completed survey in an envelope when finished. The completed surveys were then mailed to the researcher. At no time was anyone other than the researcher granted access to the raw data. Because packets were given to department heads/managers of medical facilities and surveys only finished surveys were completed, there is no way to figure out an exact response rate.

## Results

Descriptive statistics for average measurements on administrative requirement, autonomy, ability to provide quality patient care, work load, work/private life conflict, pay, community satisfaction, locus of control are presented in Table 1.

Table 1.

Descriptive statistics for predictor variables

Variables	Mean	SD
Administrative Requirements	2.03	.76
Autonomy	3.67	.96
Patient care	3.92	.62
Workload	2.01	.83
Work/private live conflict	2.82	.09
Pay	2.80	.98
Community satisfaction	4.07	.77
Locus of Control	3.75	.64

### *Testing Research Hypotheses*

In order to evaluate research hypotheses inspecting the relationship between administrative requirement, autonomy, ability to provide quality patient care, work load, work/private life conflict, pay, community satisfaction, locus of control) and job satisfaction and intention to quit among family doctors and general internal physicians, a Pearson correlation was conducted and the results are presented in Table 2. The results show that a significantly positive relationship exists between satisfaction with current position and autonomy, workload, work/private conflict, pay and community satisfaction with  $p < .05$ ; a significantly positive relationship exists between satisfaction with the

current career all indicators except workload with  $p < .05$ ; a significantly negative relationship exists between the likelihood of leaving and community satisfaction with  $p < .05$ .

Table 2.

Pearson correlation analysis between independent variables and outcome variables.

Scales	Satisfaction w/ Position	Satisfaction w/ Career	Likelihood of leaving
Administrative	.256	.405*	.017
Autonomy	.381*	.581**	-.161
Patient care	.319	.494**	-.314
Workload	.440*	.315	.021
Work/Life Conflict	.543**	.434*	-.201
Pay	.417*	.431*	-.049
Community Satisfaction	.491**	.497**	-.406*
Locus of Control	.298	.461*	-.302

significance level \*.05, \*\* .01

Hypothesis 1 stated that physicians who perceive their administrative requirements to be excessive will be less satisfied with their current position, less satisfied with their career, and more likely to turnover. The variable, was recoded so that a low score indicated that the physician felt his or her administrative requirements were excessive and a high score indicated that the administrative requirements were not excessive. The correlation analysis shows that physicians' perception of administrative requirements has a positive association with satisfaction with current career but not

satisfaction with current position or likelihood of turnover. In order to further evaluate how the physicians' perceptions of their administrative requirements affected their satisfaction with their current career, a logistic regression model analysis was conducted with satisfaction with current career as response variable and perception of administrative requirements as the independent variable. The results are presented in Table 3 and show that the regression coefficient of administrative scores is 1.02 ( $p < .05$ ), which implies that the physicians' perceptions of their administrative requirements are significantly associated with their satisfaction with their current career. Therefore, Hypothesis 1 is supported.

Table 3. Ordinal logistic regression model testing the relationship between administrative scores and satisfaction with current career

Model	B	SD	Wald	P
Administrative scores	1.02	.52	3.81	.05

Hypothesis 2 stated that physicians who perceive their job to have a low degree of professional autonomy will be less satisfied with their current position, less satisfied with their career, and more likely to turn over. The correlation analysis shows that professional autonomy has a strong positive association with satisfaction with current career and satisfaction with current position but not likelihood of turnover. In order to further evaluate how professional autonomy affects physician satisfaction with current career and current position, a logistic regression model analysis was conducted with the

variables satisfaction with current career and current position as response variables separately and professional autonomy as the independent variable. The results were presented in Table 4 and 5. The results in Table 4 show that the regression coefficient of autonomy is 0.89 ( $p < .05$ ), which implies that the physicians' perceptions of professional autonomy are significantly associated with their satisfaction with their current position. The results in Table 5 show that the regression coefficient of autonomy is 1.20 ( $p < .01$ ), which implies that the physicians perceiving greater professional autonomy are significantly more satisfied with their current career. Therefore, Hypothesis 2 is supported.

Table 4. Ordinal logistic regression model testing the relationship between professional autonomy and satisfaction with current position

Model	B	SD	Wald	P
Autonomy	. 89	. 42	4. 56	. 03

\* Significance level .05

Table 5. Ordinal logistic regression model testing the relationship between professional autonomy and satisfaction with current career

Model	B	SD	Wald	P
Autonomy	1.20	.46	6.74	.01

\*\* Significance level . 01

Hypothesis 3 stated that physicians who perceive they have the ability to provide high quality care to their patients will be more satisfied with their current position, more satisfied with their career, and less likely to turnover. The correlation analysis shows a strong positive relationship between career satisfaction and ability to provide high quality patient care, but not satisfaction with current position and likelihood of turnover. In order to further evaluate how the quality patient care variable affects physician satisfaction with their current career, a logistic regression model analysis was conducted with career satisfaction as response variable and the ability to provide quality patient care as the independent variable. The results are presented in Table 6 and show that the regression coefficient of patient care is 1.55 ( $p < .05$ ), which implies that the physicians' who perceive they have the ability to provide high quality patient care are significantly more satisfied with their current career. Therefore, Hypothesis 3 is supported.

Table 6. Ordinal logistic regression model testing the relationship between patient care and satisfaction with current career

Model	B	SD	Wald	P
Patient care	1.55	.73	4.49	.03

\* Significance level .05

Hypothesis 4 stated that physicians who perceive their workload to be excessive will be less satisfied with their current position, less satisfied with their career, and more likely to turnover. This variable was also recoded so that lower scores meant that physicians felt their workload was excessive and higher scores indicated workload was

not excessive. The correlation analysis shows that physicians perceiving their workload as excessive has a strong positive association with satisfaction with current position, but not satisfaction with current career and likelihood of turnover. In order to further evaluate how the physicians' workload affects their satisfaction with their current position, a logistic regression model analysis was conducted with the variable, satisfaction with current position as response variable and workload as the independent variable. The results were presented in Table 7 and show that the regression coefficient of workload is 1.13 ( $p < .05$ ), which implies that the physicians workload is significantly associated with their satisfaction with their current position. Therefore, Hypothesis 4 is partially supported.

Table 7. Ordinal logistic regression model testing the relationship between workload and satisfaction with current position

Model	B	SD	Wald	P
Workload	1.13	.51	4.90	.03

\* Significance level .05

Hypothesis 5 stated that physicians who perceive a balance in their life between work and their private life will be more satisfied with their current position, more satisfied with their career, and less likely to turnover. The correlation analysis shows a strong positive association between a physician's work/private life balance and satisfaction with current career and satisfaction with current position but not the likelihood of turnover. In order to further evaluate the relationship between the balance between life and work and satisfaction with current career and current position, a logistic

regression model analysis was conducted with the variables satisfaction with current career and current position as response variables separately, and the balance between life and work as independent variable. The results were presented in Table 8 and 9. The results in Table 8 show that the regression coefficient of perceiving balance between life and work is 1.10 ( $p < .01$ ), which implies that the physicians' balance between life and work are significantly associated with their satisfaction with their current position. The results in Table 9 show that the regression coefficient of balance between life and work is .78 ( $p < .05$ ), which implies a relationship between physicians' perceiving a balance between life and satisfaction with their current career. Therefore, Hypothesis 5 is supported.

Table 8. Ordinal logistic regression model testing the relationship between work and private life balance and satisfaction with current position

Model	B	SD	Wald	P
balance between life and work	1.10	.40	7.62	.01**

\*\* Significance level .01

Table 9. Ordinal logistic regression model testing the relationship between work and private life balance and satisfaction with current career

Model	B	SD	Wald	P
balance between life and work	.78	.38	4.33	.04*

\* Significance level .05

Hypothesis 6 stated that physicians who perceive their pay to be fair will be more satisfied with their current position, more satisfied with their career, and less likely to turnover. The correlation analysis results show that physicians' pay satisfaction has strong positive relationship with satisfaction with current career and satisfaction with their current position but not the likelihood of turnover. In order to further evaluate how the physicians' pay satisfaction affects their satisfaction with their current career and current position, a logistic regression model analysis was conducted with the variables, satisfaction with their current career and current position as response variables separately and the pay satisfaction as the independent variable. The results are presented in Table 10 and 11. The results in Table 10 show that the regression coefficient of pay satisfaction is .97 ( $p < .05$ ), which implies that the physicians' satisfaction with their pay is significantly related to their satisfaction with their current position. The results in Table 11 show that the regression coefficient of pay satisfaction is 1.03 ( $p < .05$ ), which implies that the physicians' pay satisfaction is also associated with their satisfaction with their current career. Therefore, Hypothesis 6 is supported.

Table 10. Ordinal logistic regression model testing the relationship between pay satisfaction and satisfaction with current position

Model	B	SD	Wald	P
pay satisfaction	.97	.41	5.79	.02*

\* Significance level .05

Table 11. Ordinal logistic regression model testing the relationship between pay satisfaction and satisfaction with current career

Model	B	SD	Wald	P
pay satisfaction	1.03	.44	5.56	.02*

\* Significance level .05

Hypothesis 7 stated that physicians who are satisfied with the community that they live in will be more satisfied with their current position, more satisfied with their career, and less likely to turnover. The correlation analysis results shows a strong positive association between community satisfaction and satisfaction with current career and satisfaction with current position and a strong negative association exists between satisfaction with the community and the likelihood of turnover. In order to further evaluate how the physicians' satisfaction with the community affects their satisfaction with their current career, current position, and the likelihood of leaving, a logistic regression model analysis was conducted with the variables, satisfaction with current career, current position, and likelihood of leaving as response variables separately and satisfaction with the community as independent variable. The results were presented in Tables 12, 13, and 14. The results in Table 12 show that the regression coefficient of satisfaction with the community is 1.48 ( $p < .01$ ), which implies that the physicians who are satisfied with the community are significantly more satisfied with their current career. The results in Table 13 show that the regression coefficient of satisfaction with the

community is 1.27 ( $p < .05$ ), which implies that the physicians who are satisfied with the community are significantly more satisfied with their current position. The results in Table 14 show that the regression coefficient of satisfaction with the community is -1.20, ( $p < .05$ ), which implies that the physicians' who are satisfied with the community are significantly less likely to leave. Therefore, Hypothesis 7 is supported.

Table 12. Ordinal logistic regression model testing the relationship between satisfaction with the community and satisfaction with current position

Model	B	SD	Wald	P
satisfaction with the community	1.48	.56	6.97	.01**

\*\* Significance level .01

Table 13. Ordinal logistic regression model testing the relationship between satisfaction with the community and satisfaction with current career

Model	B	SD	Wald	P
satisfaction with the community	1.27	.56	5.13	.02*

\* Significance level .05

Table 14. Ordinal logistic regression model testing the relationship between satisfaction with the community and likelihood of leaving

Model	B	SD	Wald	P
satisfaction with the community	-1.20	.56	4.67	.03*

\* Significance level .05

Hypothesis 8 stated that physicians with a high locus of control will be more satisfied with their current position, more satisfied with their career, and less likely to turnover. The correlation analysis results show locus of control has a strong positive association with satisfaction with current career, but not satisfaction with their current position and likelihood of turnover. In order to further evaluate how the physicians' locus of control affects their satisfaction with their current career, a logistic regression model analysis was conducted with the variable satisfaction with career as response variable and locus of control as the independent variable. The results were presented in Table 15 and show that the regression coefficient locus of control is 1.72 ( $p < .05$ ), which implies that the physicians with a high locus of control are insignificantly associated with their satisfaction with their current career. Therefore, hypothesis 8 is supported.

Table 15. Ordinal logistic regression model testing the relationship between locus of control and satisfaction with current career

Model	B	SD	Wald	P
locus of control	1.72	.73	5.49	.02

\* Significance level .05

Based on the above results, the survey instruments to measure the indicator variables were highly reliable and valid. The current study indicates that a significant positive relationship exists between satisfaction with current position and autonomy, workload, work/private conflict, pay and community satisfaction; a significantly positive relationship exists between satisfaction with current career and all indicators except workload. A significant negative relationship exists between the likelihood of leaving and community satisfaction.

## Discussion

The purpose of the current quantitative study was to investigate the predictors (i.e., administrative requirement, autonomy, ability to provide quality patient care, work load, work/private life conflict, pay, community satisfaction, locus of control) and their effects on job satisfaction as well as the intention to quit among family doctors and general internal physicians. The methodology employed was a quantitative research method with a correlational design because of the need to determine the relationship between the predictor variables. This method was the most appropriate research method due to the need to analyze multiple factors, the use of well-defined variables, and statistical analyses using analysis of variance and regression were provided (Neuman, 2007). An exploratory nature was used in order to investigate the extent to which the variance of one variable would exert an influence on the other variables. The use of a correlational design aided in the development of new knowledge, generating questions, and forming hypotheses that could be used to inform further research (Walker, 2005).

The current study intended to add to the physician job satisfaction and turnover literature in a number of different ways. First, the study hoped to clarify disagreement in the literature about the effects of different predictors of satisfaction. Second, few studies have measured turnover. As such, the present study measured intention to quit which is the best predictor of turnover. Third, there appears to be no previous study of physician satisfaction and turnover that has included a personality variable as a predictor. The literature on job satisfaction suggests that characteristics of the person, not solely characteristics of the job, are important to job satisfaction. For this reason locus of

control was studied as a possible predictor of physician job satisfaction and turnover.

Fourth, although many of the predictors applied in this study have been applied in various studies of physician job or career satisfaction or turnover, this is the first study in which all of the predictors have been analyzed in the population of family physicians and general internal physicians.

The current study examined nine predictors and their effects on job satisfaction and intention to quit among family doctors and general internal physicians. The current section reviews the hypotheses for the current study and provides a summary of the findings as described in the results. In addition, the implications of the results and conclusions of the research will be discussed. Lastly, the limitations of this study and recommendations for future research will be provided.

#### *Summary of Findings*

To summarize, the major findings showed that the physicians who perceived a larger workload were less satisfied with their current position. Physicians who felt they had a good balance between work and their private life were more satisfied with their current position and who felt that they had the correct balance between work and their private life were also more satisfied with their careers. Those who felt that they were able to provide a high level of patient care were more satisfied with their careers and those who were more satisfied with their level of autonomy were more satisfied with their current positions. Lastly, physicians with an internal locus of control were more satisfied with their current position than those with more external locus of control orientations.

### *Implications of the study*

The current study provided support on the negative relationship between turnover and job satisfaction (Mobley, 1977; Judge & Church, 2000). Aspects of job satisfaction were significantly related to job turnover. Job satisfaction however, appeared to be more related to overall satisfaction with the current position and less associated with applying for a new job. This finding is consistent with past research which has shown a modest relationship between job satisfaction and turnover (Baron & Greenberg, 2000). Many theories have attempted to explain the modest relationship between job satisfaction and turnover by explaining turnover not as a direct result of job dissatisfaction, but as a process of steps initiated by an employee experiencing job dissatisfaction (March & Simon 1958; Locke, 1968; Mobley, 1977). In regard to the current study, it may be that those physicians who indicated dissatisfaction with their jobs were not at a step in the model in which they had begun to look for a new job. This study did not measure their intention to quit which may have influenced the results as intention to quit is considered the immediate antecedent of turnover (Lee, Mitchell, Holtom, McDaniel, & Hill, 1999).

The current study provided support for the relationship between level of job autonomy and job satisfaction. Researchers have asserted that the increasing restriction of autonomy on physicians has led to a decrease in job satisfaction (Landon, Aseltine, Shaul, Miller, Auerbach, & Clerary, 2002). Physicians are subject to profiling, utilization review, and pre-approval for treatment. Pre-approval is a process that requires physicians to gain authorization for the use of specified treatments or tests. Physicians are also expected to follow prescribed guidelines, use decision tools supplied by others,

and they now face patients who are much more informed about treatment options and procedures (Landon et al., 2002). This study showed that physicians who perceived a greater level of autonomy expressed a higher degree of job satisfaction.

Support was also provided for the link between an increased workload and lower job satisfaction (Williams & Cockrell-Skinner, 2002). Those who reported an increased workload also reported a decrease in job satisfaction. However, this was not related to looking for a new job within the last 12 months. This finding is similar and consistent to Pathman et al. (2002) which found that having an extensive amount of job requirements led to job satisfaction but was not related to job turnover. This study supported the association between being able to provide high quality care to patients and job satisfaction. Similar research has shown this relationship (DeVoe et al., 2002; Stoddard et al., 2002).

The current study provided support for the relationship between locus of control and job satisfaction. Past research regarding various job related factors has shown that locus of control is related to job satisfaction (O'Brien, 1982, Spector, 1982). The current study was unique in that it examined locus of control in regard to physician job satisfaction. The results showed that physicians who reported a higher internal locus of control were more satisfied with their jobs than physicians who reported a more external locus of control.

Lastly, the current study has many practical implications for employers. Employers may be able to examine the findings and implement practices designed to increase job satisfaction. Namely, these results show that it is important to provide

employees with a level of autonomy and to foster the development of internal locus of control. Furthermore, it is important for employers to provide employees with the opportunity to provide high quality care to patients and to take measures to create a balance in job responsibilities.

### *Limitations*

According to Creswell (2002), limitations examine the boundaries, reservations, exceptions, and qualifications in a given study. The primary limitation in this study was a small sample size. The sample consisted of 30 participants. Small sample size limits the variability and may make it difficult to find differences between individuals. In addition, small sample size affects the level of power that is necessary to achieve significant results (Creswell, 2002).

Furthermore, the findings may not be representative of what takes place in other sectors of the industry and as such this limits the generalizability of the findings. This study was also limited by time and resource constraints since it was beyond the scope of the research to understand the relationship between physician job satisfaction and job turnover on a global scale.

The study was limited by the convenience sampling method that was used. Convenience sampling can have a negative impact on study results (Creswell, 2002). First, this study relied on self-report and therefore, was limited by the truthfulness of the participants. There is no way to ensure the honesty of the participants which can potentially exert an influence on the results. Second, it may be that those individuals who volunteered to participate had an interest in the study which may have affected the results

as well. In addition, the participants were comprised of two different healthcare disciplines. Although this represented a novel and unique approach in examining the relationship between job satisfaction and turnover, it may have negatively impacted the results.

#### *Directions for Future Research*

The current study was limited by the relatively small sample size which may have made it difficult to achieve significant findings and also limits the variability of responses as well as decreases the generalizeability of findings. It is important the future research implement a larger study population. Also, future research may want to include a more heterogeneous sample in order to increase variability and generalizeability.

Participants consisted of both general internal physicians and family physicians. It was assumed that these two groups would have similar experiences regarding job satisfaction and turnover. However, this may not be the case. Future research should be targeted at examining internal physicians and family physicians separately. By doing so, this may demonstrate what particular factors are related to job satisfaction as well as indicating whether there are any differences in job satisfaction depending on physician type.

The current study was unique in that it examined the relationship of physician locus of control and job satisfaction. The findings provided support for the influence of locus of control. Future studies should seek to replicate these findings to provide additional support establishing the link between internal locus of control and job satisfaction in regard to physicians.

Recent research has begun to examine the variable of intention to quit in regard to the relationship between job satisfaction and turnover (Lee et al., 1999). However, intention to quit was not measured as one of the predictor variables. It may be that intention to quit serves as a mediating role between job satisfaction and turnover. Future studies should be designed in which intention to quit is examined as a predictor variable or as a mediating variable in order to assess the relationship that intention to quit may have on the relationship.

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## Appendix A

### Survey Items

Question Stem: Please indicate how strongly you agree or disagree with each of the following statements:

1. I am burdened with an excessive amount of administrative responsibilities
2. I am asked to do excessive amounts of paperwork
3. I feel that I have the authority to make decisions influencing my patients
4. I feel that I am in control of aspects of my work not related to patient care
5. I am able to provide high quality care for my patients
6. I can access the resources needed to provide high-quality patient care
7. I am able to establish relationships with my patients
8. I am able to communicate with specialists when necessary
9. I am able to obtain necessary services for my patients
10. I am asked to see too many patients per day
11. I am often faced with time pressure at work
12. I am expected to work too many hours per week
13. I am able to have a life outside of work
14. My work schedule often conflicts with my family time
15. I am satisfied with my salary
16. I am earning close to what I felt I would be earning upon entering the medical field
17. I am underpaid for the job I do
18. My pay relative to my peers is fair

19. I am satisfied living in the community I currently live
20. I am satisfied with the opportunities that my family has in this community
21. I feel that my community respects our medical group
22. Whether or not I get to be a leader depends mostly on my ability
23. Whether or not I get into a car accident depends mostly on how good a driver I am
24. When I make plans I am almost certain to make them work
25. How many friends I have depends on how nice a person I am
26. I can pretty much determine what will happen in my life
27. I am usually able to protect my personal interests
28. When I get what I want, its usually because I worked hard for it
29. My life is determined by my own actions
30. I am satisfied with my current position
31. I am satisfied with my decision to become a primary care physician
32. What is the likelihood you will leave your position in the next 3 years?
33. Have you applied for another job in the last 12 months?