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A Historical Analysis of Physician Dissatisfaction

A Thesis Submitted to the

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Degree of Doctor of Medicine

by

Lisa Elaine McDonald

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A HISTORICAL ANALYSIS OF PHYSICIAN DISSATISFACTION

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Given the growing levels of physician dissatisfaction and attrition, this study was conducted to ask what was the historical development of the events that gave rise to the problematic conditions, what are the characteristics of the current daily practice environment that create dissatisfaction, and what are the consequences of physician dissatisfaction? This research was conducted by literature review compiled from both the lay and scientific sectors, however, when possible primary sources were employed. As a science, medicine undoubtedly has improved over the last century. However, this review would suggest that developments in the last 30 years have created a contemporary practice environment that fosters physician unrest by removing positive incentives for practicing medicine. Two of the most consistently cited factors were managed care and the malpractice crisis. Physician dissatisfaction has been demonstrated to result in a wide range of consequences, from the personal (burnout, attrition) and professional (inappropriate patient care) to the disastrous (suicide). The best next step recommended is to raise awareness and open dialogue early in the medical education process to prepare students for the realities of a life in medicine.

ACKNOWLEDGEMENTS

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1.) Introduction

"Sir William Osler (1849-1919), physician and pioneer of modern medical education acknowledged the medical profession was not uniformly satisfying for all who followed his path noting: "To each one of you the practice of medicine will be very much as you make it- to one a worry, a care, a perpetual annoyance; to another, a daily joy and a life of as much happiness and usefulness as can well fall to the lot of man." [1]

      The assessment of workplace satisfaction is prevalent across vocation, and medicine is no different. Thought by many to be a noble pursuit, the profession of medicine connotes the impression of prestige, wealth, and power. However, medical practice requires significant personal sacrifice, and the influence of multiple societal and historical factors has led to changes in physician satisfaction, calling that sacrifice into question.

      The "golden age of medicine" spanned the first half of the 20th century and marked an unprecedented period in the rising popularity and respectability of the practice of medicine. Between the years of 1930 and 1950, physicians enjoyed a lucrative practice environment, professional autonomy, and high community standing. Popular polls at the time consistently rated physicians on par with Supreme Court justices in measure of community regard.[2] By the mid 1960s however, many of these attractive incentives to practice medicine had seemingly vanished with the elder generations of practicing physicians. The health care system was evolving an increasingly sophisticated

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[1] McManus, I.C., Keeling, A., and Paice, E. 2004. Stress, Burnout and Doctors' Attitudes to Work are Determined by Personality and Learning Style: A Twelve Year Longitudinal Study of UK Medical Graduates. *BMC Medicine*. 2: 29-40.

[2] Burnham, J.C. 1982. American Medicine's Golden Age: What's Happened to It? *Science*. 215: 1474-1479.

infrastructure of legislative guidelines, corporate influences, and consumer representation. As the climate had changed, so too had the level of satisfaction that physicians had with the healthcare system.

2.) Hypothesis and Specific Aims

The fall in satisfaction stems from a contemporary environment which arose following a century of dramatic systemic changes, the most compelling having occurred in the past 50 years. This paper identifies the key historical events which shaped a healthcare system that fosters physician dissatisfaction, isolates factors in the resultant healthcare system contributing to physician dissatisfaction, and demonstrates that physician attrition and maladaptive behavior results from dissatisfaction.

3.) Methods

In this analysis, I have conducted a review of the relevant literature over the century pertaining to physician dissatisfaction and attrition. This literature arises from many perspectives. I have included historical documents from early scientists studying healthcare, contemporary historians studying evolving trends, features from the popular press throughout time and an analysis of each from the scientific community in the form of controlled studies. The relevance of this examination is emphasized in the literature. Job satisfaction is an important determinant of physician retention and turnover and may also affect performance. [3]

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[3] Sibbald, B., Enzer, I., Cooper, C., Rout, U., and V. Sutherland. 2000. GP job satisfaction in 1987, 1990, and 1998: Lessons for the Future? *Fam Pract*. 17:364-371.

In both the United States and abroad, numerous studies have focused on analyzing physician motivation and satisfaction in an effort to improve the healthcare environment for patients and practitioners alike. There does not exist a significant body of literature that places these factors in a historical context, exploring the development of dissatisfaction and resultant behavior over time. This analysis is critical, given the weaknesses that exist in our current models to assess the patterns of practice and attrition.[4]

4.) Presentation

A.) Historical Development of the Practice Environment

Achieving an understanding of key historical milestones that characterize the changes in the practice of medicine is the first step in examining the evolution of physician dissatisfaction. The first of these to be examined is the Flexner Report, which marked a new era in academic medicine. [5]

Considered by many to be one of the most important pieces of literature in the history of American medicine, the Flexner Report was commissioned by a grant from the Carnegie Foundation, in 1910. Abraham Flexner was called upon to survey all United States medical institutions at the time, for the purpose of enacting higher standards of academic practice. The report induced a dramatic remodeling of medical education, and the resultant system bears remarkable resemblance to the current practice of medical

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[4] Rittenhouse, D., Mertz, E., Keane, D., and K. Grumbach. 2004. No Exit: An Evaluation of Measures of Physician Attrition. *Health Serv Res*. 39: 1571-1588. The accuracy of the AMA Masterfile data (a census of physician practice status) has been compared against physician intentions to quit clinical practice. Both measures were used as a proxy for actual departure from clinical practice. Intention to quit, while somewhat better than the poorly updated Masterfile data, have low specificity and low positive predictive value, hence serve poorly as a measure of physician attrition.
[5] Colby, D.C. 1997. Doctors and their Discontents. *Health Aff.* 16: 112-114.

education. Requirements for secondary education prior to entrance into medical school, adherence of medical education to the scientific method, and oversight of state governments on medical school establishment and size were all consequences of Flexner's research and recommendations.[6] The Flexner Report was recognized to endorse the necessity of a single uniform standard of scientific medical education, which coincided with the emergence of allopathic medicine.[7,8] The result was an emphasis on the scientific basis of healthcare delivery, but it did not at the time overtly alter the practice of medicine for physicians.[9] Retrospectively however, the profession was organizing and forming a cohesive ideology of practice and indoctrination grounded in the scientific method. Over time, this standardization in medical education would translate to an improvement in the consistency and quality of trained physicians in the community.

Compensation for the elevation of their craft came to the medical community in a period of prosperity and satisfaction spanning the first half of the twentieth century. The decades prior to the start of WWII were marked by an explosion of scientific discovery and technologic development.[10] A national allegiance to scientific reason was instrumental in extinguishing the epidemic of quackery that had run rampant late in the nineteenth century. Likewise, the credibility of physicians had seemingly grown

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[6] Beck, A.H. 2004. The Flexner Report and the Standardization of American Medical Education. *Student JAMA*. 291: 2139-2140.

[7] Burnham, J.C. 1982. *American Medicine's Golden Age: What's Happened to It? Science. 215: 1474-1479.* The turn of the twentieth century brought a wave of scientific breakthrough that amounted to an endorsement of rational therapeutic practices, and a gradual debunking of many of the pseudo-scientific treatments that had once held favor among the general population, including blistering, bleeding and purging.

[8] Cooke, M., Irby, D., Sullivan, W., and K. Ludmerer. 2006. American Medical Education 100 Years after the Flexner Report. *New Engl J Med.* 355: 1339-1344.

[9] Lewis, C.E. 1998. Who Would Want To Be A Doctor? *West J Med.* 168: 30-31.

[10] Burnham, J.C. 1982. American Medicine's Golden Age: What's Happened to It? *Science.* 215: 1474-1479.

overnight. The healthcare system operated largely independent of outside control. This freedom was mirrored in the latitude afforded individual physicians in the duties of daily practice.[11]   Reporting to the New England Journal of Medicine, Abigail Zuger M.D., an infectious disease specialist, essayist, and frequent contributor to the New York Times, comments "Sociologists portrayed American doctors as the lucky heirs to a golden age of medicine. They were surrounded by admiring assistants, loyal patients, and respectful colleagues and had a luxurious income," [12] In the late 1930s, physician popularity gained heroic proportions and circulated in popular print media.   Real Life Comics, True Comics, and Real Heroes competed with well known classics including Superman and The Incredible Hulk.[13] However, the unwavering popular support for physicians would not last.   As the government began to exert a growing influence in the healthcare sector, an evolving debate over socialized medicine damaged the credibility of the profession.[14] The golden age was coming to a close, and with the changing popular perceptions of medical culture would come marked alterations to the unrestricted practice of medicine.

The first significant governmental involvement in the healthcare setting occurred with the passage of Medicare and Medicaid, signed into law by Lyndon B Johnson in 1965. The legislation was enacted to secure the "provision of healthcare delivery to the poor and elderly."[15] Before 1965, the AMA had opposed many incarnations of governmental healthcare delivery propositions on the grounds that healthcare delivery should be a contract between provider and patient. However, with the Social Security

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[11] Starr, Paul. 1982. *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry.* New York: Basic Books. 514pgs. 235-379.
[12] Zuger, A. 2004. Dissatisfaction with Medical Practice. *New Engl J Med.* 350: 69-75.
[13] Hansen, B. 2004. Medical History for the Masses: How American Comic Books Celebrated Heroes of Medicine in the 1940s. *Bull Hist Med.* 78: 148-191.
[14] Burnham, J.C. 1982. American Medicine's Golden Age: What's Happened to It? *Science.* 215: 1474-1479.
[15] Lewis, C.E. 1998. Who Would Want To Be A Doctor? *West J Med.* 168: 30-31.

Amendments of 1965 Medicare and Medicaid came into being, and a fundamental change in the ideology of American social healthcare policy took place. The concept of a national health insurance doctrine was very different from the framework proposed at the beginning of the century, in which disability insurance was often coupled with reimbursement insurance plans. While Medicare and Medicaid policies were enacted and became secured in 1965, the "legislation remained fluid"[16] These actions represented the first governmental policy measures that would have dramatic national results in the way physicians practiced medicine, which would become clear over the next few decades.

The sixties and seventies constituted an era of change, and healthcare was not exempt from this general rule. In 1973, landmark legislation was passed in the form of the Health Maintenance and Portability Act. The law established regulatory standards for HMOs and compelled employers to offer HMOs to their employees. This effectively increased the prevalence of HMO participating members in the healthcare system. As noted in 1997 by David Colby, former deputy director of the Physician Payment Review Commission and health affairs analyst, "Prior to 1973, physicians enjoyed more professional autonomy, fewer external guidelines to patient care, and a generally self regulated system of governance. The implications of the changes during the 1970s would be measured by growing physician dissatisfaction and attrition rates." He goes on to note that "Physicians in areas of high HMO market penetration were more likely to be employees than owners of their practices and [they experienced] decreased satisfaction with their job."[17]

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[16] Berkowitz, E. 2005. Medicare and Medicaid: the Past as Prologue.," *Health Care Financ Rev*. 27: 11-23.
[17] Colby, D.C. 1997. Doctors and their Discontents. *Health Aff.* 16: 112-114.

The changes that prompted feelings of discontent during the 1970s consisted of rapidly escalating costs in Medicare and Medicaid, along with the growing sentiment that medical care was poorly administered, inequitably distributed, and inferior in quality.[18] The term "health care crisis" was first used to describe the rising cost of medical care in the United States. The crisis prompted several approaches from politicians at the time, including a comprehensive plan of free medical care from the liberals (Senator Edward Kennedy and Representative Martha Griffiths). The Nixon administration, driven by rising costs, political pressures, and the desire to endorse health maintenance, was developing its own approach to the crisis. Patterned after the Kaiser system, the president called for a plan that "stimulated private initiative."[19] Outright, the American Medical Association (AMA) had endorsed this "new national health strategy" first described by President Nixon in December of 1971. The term used, "health maintenance organization", was deliberately vague, but generally referred to groups which received fees from subscribers and reimbursed physicians for services. However, there were significant problems with the proposal set forth by the Nixon administration, including a substantial cut in the Medicare budget to pay for the proposed plan.

It was during the seventies when physicians began to verbalize feelings of discontent with the changes that had developed over the previous decades. This was clearly demonstrated by the backlash among the physician community in response to the Nixon health plan. The AMA attempted privately to reverse its support, while

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[18] Starr, Paul. 1982. The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry. New York: Basic Books. 514pgs. 235-379.
[19] Ibid. See also Kaiser Permanente Website, "History of Kaiser Permanente" Kaiser Permanente, http://www.kaiserpermanente.org/ (accessed August 9, 2007). The Kaiser Permanente system is the nations largest HMO, founded in 1945 and based in Seattle, Washington. As of December 2005, there were 8.5 million members of the Kaiser System plan.

membership fell to a historical low of 50 percent within the profession. The AMA would encounter further controversy with the proposed selection of Professional Standard Review Organizations (PSROs), designed to determine the utilization of case resources under Medicaid programs. Members of the government felt PSROs could be generalized to reduce costs, while the AMA leadership felt that review on a case by case basis of every hospital stay, elective surgery, and procedure would be a dangerous intrusion into medical practice. PSROs were eventually limited to include institutional services and were comprised only of physicians.

The regulatory measures enacted during the 1970s led to dramatic alterations in the medical practice for many physicians in the United States, and generated a true overt consciousness of the impact these changes had on physician satisfaction.[20] The fall in AMA membership reflected a sense of general dissatisfaction with this restructuring of the healthcare system. The experimentation with escalating levels of governmental control in the healthcare sector had met with demonstrable resistance and stalemate. Dissatisfaction with the system was not unfounded, because the HMO program as articulated in the mid seventies did not remedy rising costs in the healthcare sector or allow for competition. These were two issues that many physicians felt primarily needed to be addressed by reform.

After the rapid introduction and subsequent decline in popularity of HMOs seen in the seventies, their growth saw renewed vigor with the Reagan administration. A novel vision of competition and incentive based approaches to healthcare management

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[20] Starr, Paul. 1982. *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry*. New York: Basic Books. 514pgs. 235-379.The AMA mounted numerous unsuccessful attempts too cut back development of federal HMO programs to quiet physician unrest without success.

with consolidated federal health care programs in "block grants" to the states and "caps"

on Medicaid spending was outlined by the Republican Party.[21] The nationwide spread of

managed prepayment of charges on a contractual basis (managed care) late in the

twentieth century marked yet another significant change to the delivery of healthcare

services in the country. According to many healthcare scholars and physicians, this has

resulted in a marked decline in the quality of services in exchange for an increase in the

quantity of services provided.[22] Charles Lewis MD MS ScD, Professor of Health

Services, Medicine and Nursing in the UCLA School of Public Health and Director of the

UCLA Center for Health Promotion and Disease Prevention lectures on the evolution of

health professions in the twentieth century and is interested in the delivery of healthcare.

He notes additional deleterious effects of the trend towards managed care commenting

that, "The autonomy enjoyed by physicians in earlier times has been limited and decision

making capabilities are largely dictated by the equivalent of "employee handbooks".[23]

The negative sentiments had grown within the professional community by the early

1990s, as exhibited in a 1993-94 survey by the National Opinion Research Center for the

Physician Payment Review Commission. The survey revealed 72 percent of physicians

felt "external review and limitations on clinical decision making were very serious or

somewhat serious problems when dealing with HMOs." This number fell to 50% when

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[21] Starr, Paul. 1982. *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry.* New York: Basic Books. 514pgs. 235-379. The Reagan plan provided large sums of money, "grants", to the states and attached few spending guidelines. The understanding that healthcare would be best administered at the state level and budgeted accordingly was a departure from the earlier socialized medicine argument. There was also a competitive motivation for states to apportion funds wisely, with the newly reformed spending guidelines including limitations "caps" on Medicare Spending.

[22] Lewis, C.E. 1998. Who Would Want To Be A Doctor? *West J Med.* 168: 30-31.

[23] Ibid

asked to comment of fee for service plans, PPOs, Medicare or Medicaid.[24] The scope of

this problem is dramatic considering the reality that in 1997, research on the subject

confirmed 74 percent of workers receiving healthcare benefits were enrolled in managed

care plans including HMOs, point of service (POS) plans, and PPOs.[25] It is clear that

managed care has dramatically altered the environment of healthcare management,

building on an environment of legislative revolution that began in the seventies, and

continuing through the current practice climate. Paralleling this period of dramatic

change in healthcare practice is an awareness of the concept of physician dissatisfaction,

the factors contributing to this dissatisfaction, and the deleterious effects it has on the

healthcare environment.

B.) Isolating Factors Contributing to Physician Dissatisfaction in Medicine

a.) Early Predictors of Dissatisfaction

While the idea has existed that physician discontent was growing, paradoxically

applications to American Medical Schools have not fallen off in response to the changes

in medical practice. Addressing the disconnect which persists between premedical

students and their senior counterparts is a useful and fundamental step in establishing

what factors have historically affected physicians in the training process eventuating their

dissatisfaction and attrition.

Medical educators and researchers alike have speculated that premedical students

underestimate the negative aspects of the profession. John Chuck MD, a family practice

physician with the Kaiser Permanente System is involved with new physician retention in

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[24] Colby, D.C. 1997. Doctors and their Discontents. *Health Aff.* 16: 112-114.
[25] Ibid

healthcare. He conducted a study in 1996 to better understand the conundrum of the

continued rise in medical school applications despite reports of growing physician

dissatisfaction. He surveyed a group of 84 premedical students to determine their

expectations about a career in healthcare. He reported that "almost all respondents

anticipated that as physicians they would be able to cure, heal, and help their patients

(98%) and that their work would be intellectually satisfying (95%). Most anticipated that

their jobs would be prestigious (83%) and even fun (73%). Far fewer than half the

respondents would be discouraged from pursuing a medical career by the fear of being

sued (38%), business worries (22%), or administrative duties (20%)"[26] In the years

around the time Chuck was conducting his study, applications to United States medical

schools had reached an all time high of 45,465 (in 1994), while Gallup polls of US

physician conducted on behalf of the AMA in 1989 and 1990 showed only 60% of

physicians would enter medical school again.[27] This disconnect has been attributed in the

literature to a variety of different factors. It is certainly difficult as an undergraduate to

formulate an accurate or realistic picture of what a career in medicine entails. The entry

requirements for medical school, while intended to prepare an individual scholastically

for the rigors of first and second year coursework do not suggest the need to reflect upon

the personal appropriateness of the field.

     While many premedical programs do suggest volunteer work or shadowing of

physicians in practice, the degree to which these experiences prepare the premedical

student for the healthcare profession is highly variable. As Chuck remarks, "most

premedical students are left to formulate a concept of the reality and demands of the

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[26] Chuck, J. 1996. Do Premedical Students Know What They are Getting Into? *West J Med*. 164: 228-230.
[27] Ibid

medical profession through a patchwork of hospital volunteer work, research experience, talking with whatever physicians they come in contact with-often those in academic settings who are not primarily involved in patient care- and counseling from premedical advisors, few of whom are physicians."[28] The result is understandably a group of premedical applicants largely uneducated about the realities of the profession. Chuck directed student participants to rate factors that discouraged them from pursuing a career in medicine. Half of responders noted that "the time commitment of medical school and residency (47 [56%]), the financial cost of the same (44 [52%]), the mental stress of being a physician (43 [51%]), and the fear of making a mistake (39 [46%]) might seriously discourage them from pursuing a career in medicine." On the whole, their responses clearly "underestimated the negative toll that various business and administrative issues have taken on practicing physicians."[29]

The problem does not lie solely with self selection on the part of the student applying to medical school. The measures which assess the suitability of applicants for a career in medicine have been studied in an effort to attempt to predict the future appropriateness of an individual for a career in medicine. McManus, professor of psychology and medical education at University College London whose research interests include socialization and medical education, published a study in 2005 that assessed the selectors used on medical school application forms (the personal statement and letter of recommendation) and their usefulness in predicting the satisfaction of doctors with their careers in medicine. In the study, he combined data from a long-term prospective study of medical student selection and training with a paired comparison technique to predict

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[28] Chuck, J. 1996. Do Premedical Students Know What They are Getting Into? *West J Med*. 164: 228-230.
[29] Ibid

which of a pair of doctors would be more satisfied. What he found was that a large

number of assessors were unable to predict a given individuals unhappiness or

dissatisfaction with medicine.[30]

In 2004, McManus released results from a second study which investigated "the

extent to which approaches to work, workplace climate, stress, burn out and satisfaction

with medicine as a career in doctors aged about thirty are predicted by measures of

learning style and personality measured five to twelve years earlier when the doctors

were applicants to medical school or were medical students."[31] In this study, the results

suggested that the satisfaction of doctors with a career in medicine were closely related

and possibly caused by personality factors. McManus suggested that doctors learning

styles were predictive of their satisfaction in medicine. He suggested that doctors with

higher degrees of neuroticism would be less satisfied with a career in medicine. He also

suggested that doctors with lower conscientiousness on the personality measure would

experience greater stress. McManus showed that doctors with a deep approach to

learning were self motivated and independent. These physicians tended to be more

satisfied with their choice of a career in medicine.[32]

b.) The Contemporary Practice Environment and Dissatisfaction

A common refrain in the literature from the late 1990s to present suggests that one

source of physician dissatisfaction is the poor working conditions of the practice

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[30] McManus, I.C., Iqbal, S., Chandrarajan, A., Ferguson, E., and J. Leaviss. Unhappiness and Dissatisfaction in Doctors Cannot be Predicted by Selectors from Medical School application forms: A prospective, longitudinal study. 2005. *BMC Med Educ*. 5: 38-44.
[31] McManus, I.C., Keeling, A., and Paice, E. 2004. Stress, Burnout and Doctors' Attitudes to Work are Determined by Personality and Learning Style: A Twelve Year Longitudinal Study of UK Medical Graduates. *BMC Med*. 2: 29-40.
[32] Ibid

environment.   Medical practice today bears little resemblance to the field during the 1950s and 1960s.[33,34] Multiple developments over the last century eventuated the following characteristics of the current practice environment identified to affect physician satisfaction:

1.) Long work hours, in which demanding schedules are required even in light of labor restrictions.

2.) Lack of autonomy, which makes practice difficult for physicians with personalities that seek control or independence.

3.) Patient-centered medicine and the resultant shift of focus away from physician expertise.

4.) Evidence-Based Medicine and the reduction of medical practice to a formulaic administration of prescribed regimens.

5.) The qualitative decline of the doctor-patient encounter.

6.) HMO prevalence with increasing bureaucratic duties, patient quotas, and poor reimbursement for services rendered.

7.) Litigious environment of record settlements and exorbitant insurance premiums for many "high risk" specialties.

Each of these will now be examined individually.

A major concern and source of dissatisfaction is the issue of work hours. The training requirements are stringent in many residency programs, requiring long hours, even in light of work hour restrictions for resident physicians. Once residents have graduated to private practice, many must raise working hours to build a practice base or

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[33] Burnham, J.C. 1982. American Medicine's Golden Age: What's Happened to It? *Science*. 215: 1474-1479.
[34] Zuger, A. 2004. Dissatisfaction with Medical Practice. *New Engl J Med*. 350: 69-75.

cover for partners, often times exceeding the 80 hour work week restrictions that were in place for their residency. In the past five years, commentary in the UK literature has suggested the possible positive benefits of a restriction on work hours.[35] The utility of this work hour reduction for physicians in the United States is measured, given the infrastructure of privatized medicine in place, but the message remains salient. Overworked doctors are unsatisfied doctors. When hours exceed reasonable limitations, both physician and patient suffer strain.

Risa Moriarty was a surgical resident at Johns Hopkins Hospital in Baltimore for two and a half years before leaving practice to work as a medical executive. In an interview with Human Resource magazine, she recounts the trying conditions endured during her training, living "in a fog" during her residency. During one operation, she reports she was sleep deprived to the point that "[She] couldn't even talk. [She] slurred [her] words like a drunk,"[36] A nationwide study conducted by researchers at Harvard Medical School following the passage of residency work hour restrictions suggests Dr. Moriarty was not alone in her experiences during training. Dr. Christopher Landrigan, one of the principal researchers surveying work hours completed across various residency training programs comments, "The bottom line is that the current system in this country is unsafe. Our regulations still allow shifts that are too long according to the safety standards of any other industry in the United States and for physicians in other countries," The study proposed, "new regulations based on accumulated evidence that

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[35] Laurence, M. 2001. Why Are Doctors So Unhappy? Reducing Working Hours Might Help. *Br Med J*. 322: 1361-1362.

[36] Pomeroy, L. 2002. The Doctor is still in: Many resident physicians routinely work more than 100 hours a week. Are long hours a necessary rite of passage or an obsolete practice that endangers patients?- Employee Relations. *HR Magazine*. http://findarticles.com/p/articles/mi_m3495/is_2_47/ai_83058908 (accessed Dec 28, 2007).

such long hours endanger the health and safety of both doctors and patients," Landrigan asserts that, "hospitals need mechanisms and resources to enforce limits on the number of consecutive hours,"[37] If restrictions are deemed necessary for safety and propriety during residency, then the same measures should be considered when the transition is made to a busy private practice. Even when doctors transition successfully into large groups to alleviate the burden of extended hours, they face other systemic trends in the contemporary age that are growing pervasive across practice settings.

The increasing loss of physician autonomy in the healthcare system portends strenuous working conditions for individuals already extended physically and mentally. Lack of autonomy is experienced in many ways, but the primary means cited are the influence of employers and governmental regulations. Physicians perceive these interventions as defining the course of medicine. At risk is the loss of physician dominance and guidance over their future in healthcare. Many physicians "believe others will be extremely important in shaping the practice of medicine, [In fact] sixty five percent predicted that insurance companies would be extremely important in this role, 53 percent large employers, and 52 percent the government."[38] A study in the West Journal of Medicine revealed that as perceived control, social supports, and resources increased, physician burnout decreased. The study concluded that lack of perceived control was the best predictor of burnout.[39]

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[37] Cromie, W. 5 September 2006. Interns Continue to Work Overly Long Shifts, Study Finds. *Harvard University Gazette*. http://www.news.harvard.edu/gazette/2006/09.14/99-sleepyinterns.html (accessed Dec 27, 2007).

[38] Colby, D.C. 1997. Doctors and their Discontents. *Health Aff*. 16: 112-114.

[39] Freeborn, D.K., Schmoldt, R., Klevit, H.D., and K.I. Marton. 2001. Satisfaction, Commitment, and Psychological Well-Being Among HMO Physicians. *West J Med*. 174: 13-18.

Similar to the loss of physician autonomy, the challenge posed by the shifting focus in the administration of medicine over the last decade can be onerous for practicing doctors.[40] The model of patient care and accommodation taught and endorsed by many hospitals has evolved from one where the physician directs the ascertainment of medical and disease inventory to a patient-centered focus. In this setting, the caregiver assumes a secondary role, asking open-ended questions and introducing the patient as a partner in their care and diagnostic process. This methodology was conceived as a vehicle to refocus medical decision making and incorporate patient beliefs and background into the clinical setting. The introduction of this medical management construct can be time consuming and frustrating for many providers. Compounding frustration is the sentiment on behalf of certain providers that their daily clinical interactions with patients have been jeopardized.

Dr. Karen Fairhurst with the Division of Community Health Sciences at the University of Edinburgh studied the difficulties that doctors have experienced when consultations (patient visits) challenged their professional identity. Her 2006 study revealed that physicians often find such experiences aversive. In these situations, the practitioner is more likely to attribute "negative moral evaluations" to the patient and rely upon contextual factors such as "lack of time" to indict the encounter. Fairhurst uses the example of a physician who reflects upon a dissatisfying encounter where she adopted a narrow biomedical approach to a patient's complaint quoting the doctor, "I was forcing myself to be the kind of doctor that I wouldn't ideally be, which is what you have to do when you're under time pressure." Fairhurst remarks "Consultations can be seen,

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[40] Laine, C., and F. Davidoff. 1996. Patient-Centered Medicine: A Professional Evolution. *JAMA*. 275: 152-156.

therefore, as part of an ongoing process through which doctors sustain a reality of who they are professionally and that allows them to experience their work meaningfully"[41] The continued focus on the physician's interplay with the patient, as opposed to the patient's needs alone, had a negative effect on the encounter for both parties. Fairhurst comments that in the cases of most physician narratives she encountered, the "major factors influencing the satisfaction doctors derived from consultations were the perceived outcome for the individual patient, the interpersonal relationship between doctor and patient, and the impact of the experience of the encounter on the doctor's identity."[42] It is exceedingly difficult to imagine a system where the physician can remove herself in a subjective sense entirely from the interaction with the patient. Doubtless, the patient centered model of care does not require such abstraction, and is conducive to satisfactory interactions for providers and patient. However adoption of the model has proven difficult at times in the clinical setting.

In a similar fashion, the adoption of evidence-based medicine, a development celebrated enthusiastically in parts of the scientific community, has not been an entirely seamless transition for physicians. The supplementation of the clinical experience as the dominant rationale for choice of therapy began in the early 1990s and was pioneered by physicians including Dr. Gordon Guyatt of McMaster University.[43] In 1992, an article in the Journal of the American Medical Association outlined this approach and coined the phrase "evidenced-based medicine" as a unique descriptor.[44] The central concept of

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[41] Fairhurst, K. and C. May. 2006. What General Practitioners Find Satisfying in Their Work: Implications for Health Care System Reform. *Ann Fam Med*. 4: 500-505.
[42] Ibid
[43] Guyatt, G., Cook, D., and B. Haynes. 2004. Evidence Based Medicine Has Come a Long Way. *Bri Med J*. 329: 990-991.
[44] Liberati, A. and P. Vineis. 2004. Introduction to the symposium: What evidence based medicine is and what it is not. *J Med Ethics*. 30: 121-121.

evidence-based medicine is the ascertainment of data via the randomized controlled trial (RCT) and meta-analyses compiled from RCTs. Evidence-based medicine (EBM) uses these modes of information gathering as the basis for decision making.[45] The campaign to adopt this practice has been both powerful and successful throughout the medical community, but not without controversy.

Critics of EBM cite frustration with the philosophy, applicability, and growing dissatisfaction that it has engendered among physicians.[46] "I'm worried about training a generation of physicians who don't have the other skills they need for the optimal practice of medicine," says Dr. Mark Tonelli, a pulmonary-critical care specialist at the University of Washington in Seattle. "They can read the scientific literature, understand the statistics, but they don't understand how that should influence their treatment of the individual in front of them."[47]

As the evolution of EBM has taken place, some difficulty has been found in mounting a meaningful philosophical argument against supporters presenting overly broad and authoritative definitions.[48] A commonly referenced description is found in didactic texts: "Evidenced-Based Medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients."[49] Tantamount to expressing that physicians should always make good decisions based on sound information in the best interest of their patients, there is little ground offered for

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[45] Sehon, S.R. and D.E. Stanley. 2003. A philosophical analysis of the evidence-based medicine debate. *BMC Health Serv Res*. 3:14.

[46] Cohen, A.M. and W.R. Hersh. 2004. Criticisms of Evidence-Based Medicine. *Evidenced Based Cardiovasc Med*. 8: 197-198.

[47] Gorman, C. Are Doctors Just Playing Hunches? *Time*, February 15, 2007.

[48] Sehon, S.R. and D.E. Stanley. 2003. A philosophical analysis of the evidence-based medicine debate. *BMC Health Serv Res*. 3:14.

[49] Sackett, S.L., Straus, S.E., Richardson, W.S., Rosenberg, W., and R.B. Haynes. 2000. *Evidence-Based Medicine: How to Practice and Teach EBM*. Edinburgh: Churchill Livingstone, 2nd Edition.

argument. For that matter, little basis is made for a revolutionary shift in philosophical practice. These vagaries have served as a roadblock to the formation of substantive debate that might lead the medical community towards a more comprehensive approach to treatment.[50]

Dr. Bruce Charlton is an evolutionary psychiatrist in the department of psychology at the University of Newcastle upon Tyne. He addresses many topics at the interface of medicine and human behavior and is the author of numerous critiques of self-styled evidence-based medicine. He views the growing influence of evidence based medicine with particular concern, noting "Perhaps the most worrying feature of EBM, and the one which most clearly betrays its non-scientific nature, is the fact that its advocates do not answer criticism. A magisterial attitude of lofty disdain for contradictory viewpoints is the norm in government circles where power is asymmetrically distributed and the agenda is controlled,"[51]

The resultant approach is overly narrow and exclusive. Evidence-based medicine strongly favors the contributions of RCTs, neglecting other studies positing information that is applicable and meaningful to the clinical practice of physicians.[52] Observational studies and case reports are excluded on the grounds they are more prone to 'bias' with little justification.[53] Such studies are potentially rich sources of supplemental information to the knowledge base, particularly in forecasting the behavior of uncommon variants.[54]

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[50] Sehon, S.R. and D.E. Stanley. 2003. A philosophical analysis of the evidence-based medicine debate. *BMC Health Serv Res.* 3:14.

[51] Charlton, B.G. and A Miles. 1998. The Rise and Fall of EBM. *Q J Med.* 91: 371-374.

[52] Cohen, A.M. and W.R. Hersh. 2004. Criticisms of Evidence-Based Medicine. *Evidenced Based Cardiovasc Med.* 8: 197-198.

[53] Sackett, S.L., Straus, S.E., Richardson, W.S., Rosenberg, W., and R.B. Haynes. 2000. *Evidence-Based Medicine: How to Practice and Teach EBM.* Edinburgh: Churchill Livingstone, 2nd Edition.

[54] Cohen, A.M. and W.R. Hersh. 2004. Criticisms of Evidence-Based Medicine. *Evidenced Based Cardiovasc Med.* 8: 197-198.

Charlton regards the prioritization of RCTs in the evidence-based medicine debate harshly when he states, "To anyone with a scientific background, this idea of a hierarchy of methods is amazing nonsense, and belief in such a hierarchy constitutes conclusive evidence of scientific illiteracy. The validity of a piece of science is not determined by its method- as if gene sequencing were 'better than' electron microscopy!"[55] As the number of anomalous diseases and outlier patients rises, future applicability of EBM could become a widespread challenge. At present, the usefulness of EBM principles is dictated by the characteristics of the specialty, as illustrated by Tonelli who practices pulmonary-critical care medicine, where trial based interventions are particularly constrained.[56] This is problematic because the suitability of RCT research is limited for many highly specialized fields, (i.e. transplant surgery, neonatology, and surgical device development). Given the overwhelming preference shown RCT research in the medical community, it has been postulated that competition for funding and resource allocation could hinder the discovery of new technologies, because innovations generally come to production through a case-by-case basis.[57]

The flaws of EBM philosophy and applicability translate into a language of subtle clinical dysfunction and physician dissatisfaction composed of two elements. Clinical dysfunction occurs in the setting of a breakdown in the doctor-patient relationship, and physician dissatisfaction results from devaluation of clinical expertise.[58] EBM operates ideologically independent of clinical experience, and was specifically developed to

[55] Charlton, B.G. 2001. Fundamental Deficiencies in the Megatrial Methodology. *Curr Control Trials Cardiovasc Med*. 2: 2-7.

[56] Tonelli, M.R. 2001. The limits of evidence-based medicine. *Respir Care*. 46: 1440-1441.

[57] Sehon, S.R. and D.E. Stanley. 2003. A philosophical analysis of the evidence-based medicine debate. *BMC Health Serv Res*. 3:14.

[58] Cohen, A.M. and W.R. Hersh. 2004. Criticisms of Evidence-Based Medicine. *Evidenced Based Cardiovasc Med*. 8: 197-198.

remove the fallibility of the individual's observations and judgments.[59] In practice, the

constant employment of these principles translates to the removal of a certain art from the

choice of therapy and treatment within the context of the clinical experience.[60]   This

"cookbook" approach to medicine can be disheartening to practitioners when it is felt that

clinical acumen or intuition is reduced to bookkeeping. In his online weblog "Retired

Doc's Thoughts", James Gaulte M.D., a retired internist, echoes the fears and frustrations

of many practitioners, "Not only will innovation be stifled- individualized, proper

thoughtful patient care will be worse than stifled- it could almost die out," Dr. Gaulte

elaborates on the weakness of prescribed treatment algorithms, "Two patients with chest

pain often have different underlying diseases, two patients with the same disease label

have different symptoms, two patients treated with the same dose of the same medication

for the allegedly same disease have greatly different responses, two patients with the

same disease label react differently to the suggestion that they even take a medication."[61]

There also exists the potential for a reciprocal decline in quality from the patients'

perspective. EBM limits the presentation of therapeutic options at the bedside. The

implications for patient autonomy could negatively impact the doctor-patient

relationship.[62]   In both cases, a clinical environment characterized by unease creates the

potential for physician dissatisfaction and substandard patient care.

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[59] Liberati, A. and P. Vineis. 2004. Introduction to the symposium: What evidence based medicine is and what it is not. *J Med Ethics*. 30: 121-121.

[60] Fairhurst, K. and C. May. 2006. What General Practitioners Find Satisfying in Their Work: Implications for Health Care System Reform. *Ann Fam Med*. 4: 500-505.

[61] James Gaulte, "The High-Jacking or Corruption of EBM," Retired Doc's Thoughts Blog, entry posted December 17, 2007, http://mdredux.blogspot.com/2007/12/high-jacking-or-corruption-of-ebm.html (accessed December 18, 2007).

[62] Cohen, A.M. and W.R. Hersh. 2004. Criticisms of Evidence-Based Medicine. *Evidenced Based Cardiovasc Med*. 8: 197-198.

Further exacerbating waning morale is the sentiment that quality physician-patient interaction has been compromised in the contemporary working environment. Dr Peter Barrett, Canadian urologist and past president of the Canadian Medical Association, when asked if medicine was a happy profession, he remarked "Today it's a much bigger struggle to obtain timely care for your patient. It's hard to feel good about yourself when you can't deliver the service you know you should be delivering and you're continually apologizing for it."[63] Dr. Barrett is not alone in his sentiments. Dr. Carol Horowitz, Professor of Health Policy and Medicine at Mount Sinai School of Medicine, has research interests which include patient-physician communication. In a 2003 article, she acknowledged the qualitative nature of physician satisfaction and its ties to "physician relationships, collegial interactions, physicians' personal sense of competence, and (in an inverse manner) to bureaucratic aspects of the practice environment" that have been linked to physician satisfaction.[64]

Many physicians believe the quality of the doctor patient interaction has suffered in the decades following the dramatic legislative changes of the seventies. They attribute their dissatisfaction in large part to these phenomena. Fairhurst, with the Division of Community Health Services at the University of Edinburgh, studies behavior and prescribing patterns in community physicians. She described these qualitative factors by surveying groups of physicians to determine what they found most fulfilling about their work in an effort to determine what aspects of the profession, when compromised, would be responsible for their dissatisfaction. Her findings demonstrated uniformity amongst the survey group. "Regarding interpersonal relationships, doctors typically reported

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[63] Spurgeon, D. 2003. Medicine, The Unhappy Profession? *CMAJ*. 168: 751-752.
[64] Horowitz, C.R., Suchman, A.L., Branch Jr, W.T. and R.M. Frankel. 2003. What Do Doctors Find Meaningful About Their Work? *Ann Int Med*. 138: 772-e776.

feeling satisfied when they had practiced a style of medicine that values the interpersonal relationship between doctor and patient." The study also demonstrated findings consistent with the previous discussion of physician centered practice, showing greatest satisfaction issuing from consultations where doctors were able to utilize "personal attributes in addition to formal medical knowledge and technical skills."[65]

. Physician dissatisfaction stems from more concrete causes as well. Over the past decade HMO predominance has resulted in an increasingly problematic working environment. Many physicians argue that HMOs constitute one of the greatest barriers to establishing quality patient care within the clinical environment. As previously stated, the advent of managed care brought about appreciable changes in the healthcare practice setting. A growing number of regulations were placed on the quota of patients a doctor should see and the treatment protocols available. These decisions were not being regulated from within the medical community, but largely by insurers and government agencies. The backlash within the medical community has continued since the original articulation of the HMO legislation in the 1970s. Much of this contempt is directed at patients. Former AMA president Russell Roth is quoted, with regard to the consumer's role in the HMO system, "Passengers who insist on flying the plane are called hijackers!"[66]

Grembowski of the Center for Cost and Outcomes Research and the Department of Health Services at the University of Washington, Seattle studies social determinants of population health and has research interests that include the effects of managed care on

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[65] Fairhurst, K. and C. May. 2006. What General Practitioners Find Satisfying in Their Work: Implications for Health Care System Reform. *Ann Fam Med.* 4: 500-505.
[66] Starr, Paul. 1982. The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry. New York: Basic Books. 514 pgs. 235-379.

the physician-patient bond. He investigated the implications of managed care in the

primary care environment and released his findings in 2005. The patient group selected

in this study suffered from pain and depressive symptoms. From a patient perspective,

the study aimed to evaluate quality of care. The criteria used were a general rating of

care provided, "patient trust and confidence in the physician", quality of care index, and

satisfaction with continuity of care. Using a 6-item scale, the physician job satisfaction

was then measured. The scale evaluated care provided to patients, personal autonomy,

compensation, patient volume, practice management, and overall work environment.

Physicians were asked to assign a value of 1(very dissatisfied) to 5 (very satisfied) for

each of these factors. Grembowski measured the physician's job satisfaction as an

average of these 6 items and found the mean score for the sample population to be

3.7(standard deviation 0.73).[67]

     The study revealed a significant "erosion of satisfaction with medical practice"

among primary care physicians due to managed care and market competition.

Grembowski acknowledges that "Little is known about whether physician job

dissatisfaction-whether from managed care or other sources-undermines patient

perceptions of quality care and health outcomes." However, data from a comparison of

the patient groups illustrated several important relationships between patient behavior and

their degree of satisfaction with their doctors. Among physicians with greater job

satisfaction, their pain patients were more likely to keep follow-up appointments, and

their depression patients were more satisfied with the care provided by their physicians.

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[67] Grembowski, D., Paschane, M.S., Diehr, P., Katon, W., Martin, D, et al. 2005. Managed Care,
Physician Job Satisfaction, and the Quality of Primary Care. *J Gen Intern Med*. 20: 271-277.

Both groups had greater trust and confidence in their more satisfied physicians.[68]

Additionally, the study found that "managed care controls do not account for observed

relationships between physician job satisfaction and patient-rated quality of primary care.

This finding is supported by primary perceptions that managed care has little impact on

their ability to provide quality care."[69] Grembowski did not find any evidence that

physician satisfaction had a direct impact on health outcomes in the patient population.

The perception that managed care controls are increasingly present and largely

detrimental to the practice environment is common among practitioners. Studies like that

of Grembowski serve to articulate what has become a collective realization in the medical

community. The implications of physician dissatisfaction due to managed care are

concerning, and have become a focus of research and reflection for many physician-

scholars. The increasing number of administrative requirements and managerial tasks

that physicians are required to perform complicates and potentially adversely impacts the

clinical environment. As physicians roles and responsibilities grow increasingly

complex, so too does the prevalence of burnout.[70]

In a managed care era where physicians negotiated a fine balance of quota and

care, their sophistication has been further tested in the courtroom. The first malpractice

crisis began in the mid-1970s, and was accompanied by a rapid rise in insurance

premiums. We are currently in the third wave of a litigious onslaught that has created a

crisis in many specialty areas. The medical malpractice crisis is defined by a volatile

market where insurance premiums rapidly increase, insurance policies are in short

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[68] Grembowski, D., Paschane, M.S., Diehr, P., Katon, W., Martin, D, et al. 2005. Managed Care, Physician Job Satisfaction, and the Quality of Primary Care. *J Gen Intern Med*. 20: 271-277.
[69] Ibid
[70] Gundersen, L. 2001. Physician Burnout. *Ann Int Med*. 135: 145-148.

supply, and insurance suppliers suffer financial hardship.[71] Specialties such as obstetrics,

neurosurgery and orthopedics have all experienced shortages due to rising malpractice

insurance costs and record settlements. Climbing premiums have been attributed in large

part to these record settlements.[72] In the years that have followed the first crisis, several

for-profit liability carriers have been replaced by physician-owned malpractice

companies. There was a second spike of premium costs in the mid-1980s which

prompted many states to seek measures to "fundamentally reform the liability system."[73]

We are currently in the midst of the third period of rapidly rising premiums, which began

in the mid 1990s. While the severity of the crisis varies on a state by state basis, concerns

on behalf of policy-makers regarding physician shortages and access to care have taken

on national importance.[74]

C.)The Consequences of Physician Dissatisfaction

Physician dissatisfaction has grown from multiple sources identified in the

contemporary practice environment. The consequences of a declining clinical

environment are implied at every level of healthcare administration. In the clinic,

physicians face personal and professional repercussions from dissatisfaction, and as a

result a complex set of circumstances face patients.   When large changes in the

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[71] Williams, C.H. and M. Mello. 2006. Policy Brief: Medical Malpractice Impact of the Crisis and Effect of State Tort Reforms: The Synthesis Project. Policy Brief 10.

[72] Thorpe, K.E. 2004. The Medical Malpractice 'Crisis': Recent Trends and the Impact of State Tort Reforms. *Health Aff*. 23: w26-w27 (published online 21 January 2004; 10.1377/hlthaff.w4.20).

[73] Mello, M., Studdert, D. and T. Brennan. 2003. The New Medical Malpractice Crisis. *New Engl J Med*. 348: 2281-2284.

[74] Ibid. Of note, in 2005, Mello et al. conducted an investigation to determine the validity of physician shortage claims in Pennsylvania, one of the recognized liability 'crisis states'. Providers were surveyed about the impact of the malpractice environment on their clinical behavior. The study concluded that, while the litigious environment was decreasing physician supply, previously held claims of a 'physician exodus' were overstated.

healthcare system have resulted in dissatisfaction, the detrimental impacts have been directly associated with their causes. These relationships underlie the following discussion of managed care and the malpractice environment, and serve to focus the subsequent discourse on the impact of dissatisfaction on physician and patient.

a.) Managed Care Environment

Managed care has changed the nature of medicine, and many older practitioners are retiring earlier rather than practice in the age of competition, third-party payers, etc. As a result, a portion of the leadership and expertise in the medical community is lost. In the past doctors practiced longer, apprenticed more, and bequeathed the knowledge of their experience to their predecessors.[75] The lack of reward in the managed care era has important implications for the education of new generations of young physicians. Grembowski warns that "As the intensity of managed care controls increase, physicians may become more dissatisfied with their jobs, and patients may experience worse quality care, creating a spurious relationship between physician job satisfaction and quality of care."[76]

b.) Medical Malpractice

Michelle Mello PhD JD, Professor of Health Policy and Law at the Harvard School of Public Health, has research interests which include health policy and the medical malpractice system. She studied the impact of the malpractice environment on

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[75] Lewis, C.E. 1998. Who Would Want To Be A Doctor? *West J Med.* 168: 30-31.

[76] Grembowski, D., Paschane, M.S., Diehr, P., Katon, W., Martin, D, et al. 2005. Managed Care, Physician Job Satisfaction, and the Quality of Primary Care. *J Gen Intern Med.* 20: 271-277.

physicians' practice decisions and their perceptions of patient's access to care.[77] Mello

surveyed a group of surgeons and specialists in Pennsylvania, a state with one of the most

critical malpractice problems. The survey results demonstrated that a substantial number

of physicians had already, or were very likely to, "restrict the scope of their practice or

decrease the number of practitioners in group practice who provide high-risk services" in

response to liability concerns.[78]

Mello found that, based upon responses from the survey group, the supply of

physicians was likely to decrease in the years following the survey. The factor leading to

this decrease was primarily the cost of liability insurance. The study also demonstrated

that this decrease might be contributing to restrictions in patient access to care.

Additional factors including managed care were shown to contribute to these restrictions,

but liability costs were the major influential factor.[79] Of particular concern was the

position expressed by a majority of specialists, stating that they "will likely avoid caring

for high-risk and lower-paying patients." This suggests that access problems will occur

disproportionately for the poor and uninsured or for those in need of high-risk

procedures.[80]

There are several important implications for the healthcare environment suggested

by these finding. The liability environment has become a public health problem if patient

access to care is limited. Mello illustrated that the availability of certain high risk services

is being concentrated among fewer providers, limiting access for the very poor, very

[77] Beck, A.H. 2004. The Flexner Report and the Standardization of American Medical Education. *Student JAMA*. 291: 2139-2140.

[78] Mello, M., Studdert, D. and T. Brennan. 2003. The New Medical Malpractice Crisis. *New Engl J Med*. 348: 2281-2284.

[79] Thorpe, K.E. 2004. The Medical Malpractice 'Crisis': Recent Trends and the Impact of State Tort Reforms. *Health Aff*. 23: w26-w27 (published online 21 January 2004; 10.1377/hlthaff.w4.20).

[80] Mello, M., Studdert, D. and T. Brennan. 2003. The New Medical Malpractice Crisis. *New Engl J Med*. 348: 2281-2284.

remote, or very sick. As the malpractice environment worsens, the restriction of service

could grow to become one where even community hospitals do not have resources

available to provide obstetrics services, orthopedic procedures, or other surgical

subspecialty services. Physician dissatisfaction in this setting is accompanied by pressing

public health concerns and necessitates state mandated public policy interventions

directed at tort reform.

c.) Personal Impacts: Physician Burnout

Physician dissatisfaction appears to have multiple negative consequences on the

actual physician. Studies have also shown that high levels of dissatisfaction, if persistent,

can lead to mental strain and burnout.[81] The burnout that many physicians experience

when unhappy with their role in the challenging environment of healthcare practice can

take many forms. McManus et al described burnout as consisting of three separate

components of emotional exhaustion, depersonalization, and reduced personal

accomplishment. They related greater stress and burnout in doctors to the personality

trait of neuroticism or 'negative affectivity'.[82]

Fatigue, exhaustion, loss of concentration, depression, anxiety, insomnia, and

substance abuse are all commonly seen in individuals suffering from burnout. Linda

Gundersen, freelance health care and pharmaceutical writer, confronts issues facing

physicians and the healthcare industry, and addressed the topic in a recent article,

reporting that "Probably the most distinct characteristic of burnout is a loss of interest in

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[81] Deckard, G., Meterko, M. and D. Field. 1994. Physician Burnout: An Examination of Personal, Professional, and Organizational Relationships. *Med Care*. 32: 745-754.
[82] McManus, I.C., Keeling, A., and Paice, E. 2004. Stress, Burnout and Doctors' Attitudes to Work are Determined by Personality and Learning Style: A Twelve Year Longitudinal Study of UK Medical Graduates. *BMC Medicine*. 2: 29-40.

one's work or personal life, a feeling of 'just going through the motions.' For the most part, burnout in physicians does not differ from that in other professions, but physicians' reactions may be unique in some respects, in part because burnout in physicians can have devastating consequences for patients.

The tendency towards substance abuse in physicians is a particularly dangerous consequence of workplace dissatisfaction, and is very common- occurring in as many as 8% to 12% of healthcare professionals according to Susan V. McCall, MD, Medical director of the Oregon Health Professionals Program in Tigard, Oregon.[83] The private lives of physicians are often adversely affected by workplace stresses and burnout, according to Linda Clever, president of a nonprofit organization for health professionals called Renew! Clever stated that it is common and almost expected for physicians to neglect their families and other relationships. "Being a physician is one of the few socially acceptable reasons for abandoning a family," she remarked. Clever also said that managed care is not entirely to blame. "For a long time, physicians have given up a really important part of their lives, and it's affected their ability to be good physicians."[84]

Physician suicide is a darkly ominous consequence of burnout, and the statistics are frightening. According to a recent meta-analysis of studies conducted since 1960 regarding physician suicide, the aggregate suicide rate ratio for male physicians, compared to the general population, was 1.41, with a 95% confidence interval (CI) of 1.21–1.65. For female physicians the ratio was 2.27 (95% CI=1.90–2.73).

d.) Professional Impacts: Physician Attrition

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[83] McCall, S. 2001. Chemically Dependent Health Professionals. *West J Med*. 174: 50-54.
[84] Gundersen, L. 2001. Physician Burnout. *Ann Int Med*. 135: 145-148.

Prior to the 1960s, physicians had been held in high regard, along with members of the clergy and educators. In this sacerdotal function, their industry was respected and revered.[85] As the status of physicians fell in the public favor, they became subject to criticism and scrutiny over their craft. This general demotion in the public view has altered the interaction between doctor and patient. The demand for patient guided interactions requires a shift in the management and behavior for a trade classically resistant to outside intervention. The multiple factors noted previously have compromised qualitative aspects of medical practice that many practitioners find most redeeming in their daily duties. The removal of alluring incentives such as independence, prestige, salary, and creativity within the healthcare field has made tolerating cumbersome health maintenance organizations and a caustic litigious environment undeniably trying.

If the evolution of physician dissatisfaction has a clear background in several sources, the range of response and the personal implications of resultant physician unhappiness should inform the character of that dissatisfaction. The professional extreme of responses is the attrition of a physician from practice. The degree to which this occurs has been a source of concern and debate within the literature. In a landmark study, Diane Rittenhouse, MD, MPH, Professor of Family and Community Medicine at the University of California, San Francisco, who studies the redesign of primary care and healthcare quality, led a group of researchers attempting to determine the means by which physicians exit clinical practice and the factors which motivated that attrition. The direct correlation of dissatisfaction with resultant action had not been previously investigated.

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[85] Burnham, J.C. 1982. American Medicine's Golden Age: What's Happened to It? *Science*. 215: 1474-1479.

Rittenhouse found that the primary means of physician exit from clinical practice were death, a change in profession within the field of medicine, departure from the medical field, and retirement. Lewis had also found evidence of rising dissatisfaction and early retirement in physicians over 50 (who can afford to live off of earlier practice income).[86]

For Rittenhouse, the factors which predicted this attrition were old age, physician dissatisfaction, and correlated factors characterizing the current practice setting in which the physician functioned.[87] Of these, "the strongest predictor of both intention to leave and actual departure was old age." Among respondents surveyed, seventy-nine percent of respondents reported being "very" or "somewhat" satisfied with being a physician, while 21 percent indicated that they were "somewhat" or "very" dissatisfied. Four percent intended to be working in a career other than medicine, and 13 percent intended to retire. In 1998, 209 of the studied physicians had reported that they intended to leave clinical practice within the next three years; however in 2001 only 35.4 percent of these physicians had "actually left."[88] The implications for this discrepancy in reported intentions and actual course of action are numerous. It is possible that physician dissatisfaction is correlated not with physician attrition, but with intention to leave practice. In this scenario, intention to leave would be seen more as an expression of discontent rather than an actual predictor of action. The relationship between intent to leave clinical practice entirely, as opposed to intention to leave a particular job position or location, and actual departure has not been studied.[89] As Rittenhouse notes, "The gold

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[86] Lewis, C.E. 1998. Who Would Want To Be A Doctor? *West J Med*. 168: 30-31.
[87] Rittenhouse, D., Mertz, E., Keane, D., and K. Grumbach. 2004. No Exit: An Evaluation of Measures of Physician Attrition. *Health Serv Res*. 39: 1571-1588.
[88] Ibid
[89] Ibid

standard for measuring physicians' exit from clinical practice is primary data collection in the form of a prospective cohort study. No such studies exist in the literature."

e.) Compromised Patient Care

Dissatisfaction in the workplace has implications for physicians that differ importantly from other professions. The physical interchange of the patient encounter and the trust placed in the physician as caregiver creates an environment that implores consummate professionalism. The physician is called to operate at a sophisticated emotional and intellectual level on a daily basis. These taxing standards can become burdensome for unhappy doctors and issues of personal dissatisfaction can devolve easily into problems of professional competency. It has been postulated that the incidence of inappropriate patient contact, prescribing patterns, divulging of patient information and unethical physician conduct all become increasingly prevalent among burned out physician populations. Robert K. Schneider, MD, a board-certified internist, psychiatrist, and assistant professor at Virginia Commonwealth University, cares for these physicians often. He describes them as "burned out and tired- having problems in their marriages and having problems at work,"[90] Whatever the rationale, patient care could possibly suffer in the environment where physician dissatisfaction becomes epidemic and this creates an unacceptable risk.

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[90] Gundersen, L. 2001. Physician Burnout. *Ann Int Med.* 135: 145-148.

D.) What is Being Done?

  As awareness of the challenges facing physicians in the modern healthcare environment increases, measures are being taken to ensure physician well being and to remove barriers to physician satisfaction. The approach taken varies widely, but it is often directed at returning the emphasis of the clinical experience to the physician-patient encounter. Medico-political attention has turned to the plight of physicians struggling to function in the current malpractice environment. Reforms aimed at curtailing premium costs and restoring balance to the legal process have become critical in states hoping to refocus physician attention from the courtroom to the clinic. These efforts to remedy systemic flaws impeding physician satisfaction, in combination with efforts to restore physician morale, are acutely important to sustaining quality healthcare delivery nationwide.

  Illustrative of the creative approaches geared at improving physician satisfaction, is the work of Carol Horowitz, Assistant Professor of Health Policy at Mount Sinai, who explores methods to improve physician communication. By prompting physicians to generate narrative responses to a series of cues, her research team gained insight into the factors influencing job satisfaction. These responses were generated during workshops, described in the study and analyzed for common themes. Several unifying factors emerged during the study. While Horowitz admits that a certain degree of "self-selection" was intrinsic to the research design, the stories generated "described non-technical, humanistic interactions with patients as experiences that fulfilled them and reaffirmed their commitment to medicine." The stories written recounted meaningful moments of sharing non-medical time with patients. "[The authors] were impressed that

most stories took place in settings typically associated with medical failure- death and progressive chronic illness."[91] It is unsurprising that many of these interactions are ones which become compromised in busy or overcrowded practice settings. Horowitz concludes by asserting "Creating environments that foster, rather than inhibit, meaningful experiences may help improve recruitment, retention, and professional satisfaction."[92]

       The necessity of creating and maintaining a functional medico-legal environment has prompted measures to remediate the malpractice crisis. Several approaches have been taken in an attempt to reform the legal process, including caps on damages, joint-and-several liability reforms, and statute of limitation measures. Damages in medical liability cases are grouped into non-economic, economic, and punitive damages. When caps have been passed, they are generally restricted to punitive damages; only four states cap both punitive and economic damages.[93] Joint and several liability reforms limit the defendant's liability to only their degree of fault, as opposed to the entire amount of the liable claim. Statutes of limitation limit the amount of time a complainant has to file a claim.[94] Strategies are continuously formulated on a state-by-state basis to address regional challenges and community pressures.

E.) Conclusion

       Over the past century, the healthcare industry has undergone a marked transformation. While much of this evolution has advanced therapeutic method,

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[91] Horowitz, C.R., Suchman, A.L., Branch Jr, W.T. and R.M. Frankel. 2003. What Do Doctors Find Meaningful About Their Work? *Ann Int Med*. 138: 772-e776.

[92] Ibid

[93] Mello, M., Studdert, D. and T. Brennan. 2003. The New Medical Malpractice Crisis. *New Engl J Med*. 348: 2281-2284.

[94] Williams, C.H. and M. Mello. 2006. Policy Brief: Medical Malpractice Impact of the Crisis and Effect of State Tort Reforms: The Synthesis Project. Policy Brief 10.

established a firm scientific foundation for healthcare practice, and improved the delivery of care to patients, other challenges have surfaced that threaten the continued pace of innovation. Reflection on the fall in physician satisfaction in response to changing dimensions of the healthcare environment serves to guide future measures aimed at amelioration.

        A retrospective at the past century provides a basis for establishing the root causes of physician dissatisfaction. From the endorsement of the scientific method and modern teaching methodologies following the Flexner report to the adoption of the increasingly interventionist policies of the 1960s and 1970s, medicine has evolved at a rapid pace. As the legislation glut began to build towards the mid 1970s, the societal climate that colored interchanges between doctor and patient charged forward. Concurrently, there continued a societal shift in asserting patient autonomy, patient-centered medicine, and qualitatively altered the balance between daily clinical interactions. The growing presence of health maintenance organizations and the business model of healthcare in the 1980s and 1990s further augmented the work environment by levying quotas, introducing employee handbooks which dictated therapeutic options, and mandating complicated billing schemes. As the administration of healthcare has become increasingly interwoven into the social framework, the welfare of healthcare practitioners has been exposed to external influences. These circumstances have culminated in a contemporary practice environment that poses important barriers to physician satisfaction.

        As perspective moves from the past to the contemporary, those aspects of the current healthcare system that are detrimental to practitioner morale can be traced to their historic foundations. Health maintenance organizations continue to levy increasing

patient quotas and paperwork demands are unabated. For the student, intern, resident and junior physician disillusionment are commonplace. The changes that have occurred within the healthcare infrastructure resulted in a loss of physician autonomy, which can be difficult for physicians with personalities that seek control or independence in their practice. Some physicians will also find problematic the move towards a patient centered model of care, as the balance of focus moves away from the physician's expertise. The advent of evidence-based-medicine, once hailed as revolutionary, has also moved the focus from the physician as an individual. The reduction of medical practice to a formulaic administration of preordained, prescribed regimen is a source of frustration and anxiety. Other physicians become dissatisfied with the declining quality of their personal interactions with their patients. The resultant encounter between doctor and patient in either case is likely unfulfilling. Physician dissatisfaction stems from more concrete causes as well. Over the past decade, the litigious environment has been especially caustic for healthcare practice; when this is coupled with the restrictions placed by HMOs the result is an incredibly delicate arena in which to operate. It is understandable that the stresses placed on physicians have resulted in rising rates of dissatisfaction and attrition. Although malcontent is multifaceted in origin certain shared elements of the physician lifestyle provide global sources of stress and agitation.

The radically altered healthcare infrastructure and changing composition of the doctor-patient interaction has produced rising numbers of unhappy practitioners. While these developments have not stymied the entry of medical professionals to the field, the implications for physician, patient, and society are notable. Disfavor in the workplace manifests as attrition and maladaptive behavior, as practitioners become susceptible to

burnout. In this setting patient care is jeopardized at the hands of diminished physician attention, boundary violations, and compromised trust in the physician-patient bond. The response of physicians to modifiable sources of dissatisfaction is an indispensable tool guiding future measures aimed at defining and arresting physician dissatisfaction.

The question of the physicians' ability to tolerate change and evolution within their profession is not inconsequential. If the past is any indication, physicians will continue to face dynamic shifts in the doctor-patient relationship superimposed upon modifications to the healthcare framework. Important research has focused on enriching the quality of the humanistic aspect of healthcare delivery. Continued attention to this fundamental union in care will strengthen the medical community to weather the external influences of HMOs and bolster advocacy to reform the current litigious environment. Medicine may be a profession transitioning through a period of growing pains, in which case the near future will hold the key for understanding the health of the next generation of physicians.

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