

# “On Fire” or “Burned Out”?

## Engagement and Burnout in Physicians



Kerri Johnson

The GoodWork® Project  
HARVARD UNIVERSITY  
Project Zero  
124 Mt. Auburn St.  
Cambridge, MA 02138

May 2005

Howard Gardner, Series Editor  
GoodWork® Project  
Harvard University

### Acknowledgements:

I would like to thank Carrie James for her assistance in providing access to the GoodWork transcripts, as well as Melisa Kjellander, Scott Seider, and Howard Gardner for their helpful comments on earlier drafts of this paper. I would also like to thank the eight physicians who generously shared with me their time, stories, and insights.

### Abstract:

In addition to the existing criteria of “excellent” and “ethical, recently the GoodWork model was expanded to include a third “E” criterion: the work should be engaging to the employee.

Engagement is an intriguing addition to the GoodWork model because, unlike excellence and ethics, it would seem possible to have too much of a good thing. In this paper, I detail concretely how engagement fits into the GoodWork model, looking specifically at the line between engagement and overengagement, and the implications of overengagement for producing good work. Using existing transcripts from the GoodWork in Medicine project as well as conducting original interviews, I conducted a two-part study of engagement and overengagement in physicians. Findings from this study are grouped into themes of meaningful work, impact of patient interaction, work-life balance, burnout, and restrictions to residents’ work hours.

Drawing on a model of engagement and burnout originated by Maslach (1982), I argue that there exists a separate state of “overengagement” that is a frequent contributing variable to burnout.

Finally, I propose a model of the relationships among engagement, overengagement, burnout, and professional identity that provides an alternate explanation for the route from long work hours to fatigue.

*In order to burn out, a person needs to have been on fire at one time.*

(Pines, Aronson, & Kafry, 1981, p. 4)

Atul Gawande's (2002) memoir Complications: A Surgeon's Notes on an Imperfect Science, contains a chapter tellingly titled "When Good Doctors Go Bad." In it, he tells the story of Hank Goodman<sup>1</sup>, who over the course of his medical career spiraled from a respected and successful orthopedic surgeon to a negligent and unemployed hack. After a series of incidents involving ill-fitting bone screws, untreated infections, and a record-setting number of malpractice lawsuits, Goodman loses his operating license, is fired from the hospital, and even considers suicide. In this brief portrait, Gawande paints a stark picture of the "good" and the "bad" sides of medicine, a contrast which parallels the ideas of good and bad (or compromised) work more generally.

According to the model put forth in the book Good Work (Gardner, Csikszentmihalyi, & Damon, 2001), the term "good work" describes work that is: 1) technically excellent and of high quality, and 2) ethical and responsible to both traditional and nontraditional stakeholders. Recently, this model was expanded to include a third "E" criterion: the work should be engaging to the employee. Although engagement has become a topic of increasing interest to employees, managers, and business gurus alike (see, for example, Loehr & Schwartz, 2003; Seijts & Crim, 2006), few people can describe "engagement" in a work context with the specificity that is necessary for academic research. For example, how does engagement differ from similar constructs, such as motivation, interest, job commitment, and states of flow? Furthermore, if engagement is a positive and desirable state, does there exist a negative and undesirable state of

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<sup>1</sup> Not his real name.

overengagement (distinct from non- or underengagement)? If so, how does this state differ from simply being burned out?

Engagement is an intriguing addition to the Good Work model because, unlike excellence and ethics, it would seem possible to have too much of a good thing. Extremely high levels of engagement may border on obsession or lead to burnout, both of which can have far-reaching negative consequences for employees' work and home lives. My goal is to detail more concretely how engagement fits into the Good Work model, looking specifically at the line between engagement and overengagement, and the implications of overengagement for producing good work. I argue that in addition to engagement there exists a separate state of "overengagement" that is a frequent contributing variable to burnout. I propose a possible model of the relationships among engagement, overengagement, and burnout.

### Existing Models of Engagement and Burnout

Most previous research on the topic of work engagement and burnout draws from several different sub-fields within the larger fields of psychology and business. Within psychology, scholarship in the fields of motivation, personality, self-actualization, positive psychology, flow, stress, and mindfulness have all contributed to the idea of what it means to be engaged or burned out at work. In the business literature, engagement and burnout have been related to the concepts of job performance, job satisfaction, organizational commitment, organizational citizenship behaviors, the meaning of work, and work-life balance. If one restricts the review specifically to existing models of engagement in an organizational setting, three primary theoretical frameworks emerge: 1) Kahn's model of engagement/disengagement; 2) Maslach's engagement/burnout continuum; 3) social exchange theory (SET).

One of the earliest conceptions of work engagement was by Kahn (1990). He extended Goffman's (1985) theater metaphor of people occupying roles in life similar to roles in a play. But whereas Goffman believed that we are simply the collection of the roles that we play, Kahn posited a sense of self that guided and informed our roles:

People can use varying degrees of their selves, physically, cognitively, and emotionally, in the roles they perform, even as they maintain the integrity of the boundaries between who they are and the roles they occupy. Presumably, the more people draw on their selves to perform their roles within those boundaries, the more stirring are their performances and the more content they are with the fit of the costumes they don. (Kahn, 1990, p. 692)

Kahn went on to define engagement as “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances”. Similarly, he defined disengagement as “the uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically, cognitively, or emotionally during role performances” (p. 694). Importantly, this definition includes aspects of a person’s physical, emotional, and cognitive selves as relevant and contributing factors to engagement and disengagement at work. Under Kahn’s formulation, engagement at work is largely related to the degree of the self that a person brings to his or her role within the organization. Kahn seems to view engagement as positive and desirable, and does not mention or suggest the possibility of overengagement. For Kahn, engagement was closely related to motivation, and thus something for organizations to facilitate for the purposes of attaining organizational objectives.

A competing conceptualization posits that engagement is the opposite of Maslach’s (1982) construct of burnout (Halbesleben & Buckley, 2004; Schaufeli, Bakker, & Salanova, 2006). Maslach’s original theory focused on burnout in the caring or helping professions, and defined burnout as consisting of three components: physical and mental exhaustion,

depersonalization, and reduced personal efficacy. Intended to apply specifically to helping professions, the term “depersonalization” referred to instances when employees “depersonalize” or detach from the person they are serving, thereby decreasing personal emotional concern. Additional work on the construct of burnout has extended the idea to non-helping professions as well (Leiter & Schaufeli, 1996), and the term “depersonalization” has often been expanded to “cynicism” or “disengagement”. While burnout is characterized by the dimensions of exhaustion, cynicism, and reduced professional efficacy, under this framework engagement is characterized by the contrasting dimensions of high levels of vigor, or energy; dedication, or a sense of inspiration; and absorption, or flow experiences (Langelaan, Bakker, van Doornen, & Schaufeli, 2006). Significantly, Maslach’s formulation of engagement does not reference an employee’s “self,” and thus differs from Kahn’s definition.

Within the Maslach framework of burnout and engagement, there are several different options for measurement of these constructs. Quantifying engagement, disengagement, and burnout can be difficult, as most measures rely on some degree of self-report and thus impart additional subjectivity into the evaluation of what are inherently subjective constructs to begin with. Despite psychometric limitations regarding potential wording bias (Demerouti, Nachreiner, Baker, & Schaufeli, 2001), the most widely used measure of burnout is the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996). An attempt to measure work engagement has led to the creation of the Utrecht Work Engagement Scale (Schaufeli et al., 2006), for which additional validation needs to be performed.

While a popular model of both work engagement and burnout, the Maslach model approach seems to ignore what is captured by Kahn’s (1990) state of disengagement, namely the state of apathy and lack of interest in the job. Furthermore, the definition of burnout emphasizes

the emotional and perhaps physical aspects of burnout, with little reference to cognitive processes that may also be involved.<sup>2</sup>

The most recent conceptualization of work engagement utilizes SET (Saks, 2006). This perspective is based on the idea that a series of interactions between mutually dependent parties creates obligations that lead to payback and reciprocity between parties. Under this theory, if an organization offers more resources (such as meaningful and interesting jobs) to its employees, the employees will pay back the organization with deeper levels of engagement. An assumption of this theory is that employees can directly control the level of engagement that they offer to an organization and that they choose to engage or disengage in their jobs after doing a cost-benefit analysis of the inputs and outcomes of the relationship. Although this tenet seems similar to the conscious control of performances as in the Goffman/Kahn model, the SET model suggests a rather sophisticated calculus that is used to determine the types of performances that are given. While this assumption may be true for some people, it also seems possible that an employee's experience of engagement (or lack of engagement) with work is something that happens automatically, without a conscious choice to engage or disengage based on resources. Furthermore, this model seems almost devoid of the emotional aspect of engagement, focusing instead on the mechanics of cognitive processes operating within a rational economy.

A fourth model of engagement, while not specifically referring to work or organizations, may also be instructive here. The model of vital engagement (Nakamura, 2001) draws in part from the concept of flow, which refers to the experience of being absorbed by an activity to the point where time passes quickly and the person feels "caught up" in what he or she is doing (Csikszentmihalyi, 1991). However, as originally conceived, the concept of flow refers to a concrete state that lasts for the duration of the activity, rather than an ongoing relationship

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<sup>2</sup> My appreciation to David Perkins for pointing this out.

between an employee and his or her job. Nakamura takes this concept and embeds it into a larger relationship between the person and the external world. This author defines “vital engagement” as an absorbing and meaningful relationship to the world (Nakamura, 2001). While flow experiences are a component of this relationship, a second important aspect is “felt meaning,” which results at least partly “because it involves aspects of the self that the individual values: the person’s cherished goals in life; their guiding beliefs and commitments; impulses, gifts, and strengths that they embrace” (Nakamura, 2001, p. 8). Thus, Nakamura’s concept of vital engagement, when applied specifically to a workplace setting, provides an additional lens through which to consider issues of engagement and burnout.

As presented thus far, each of these models seems to provide an incomplete picture of the work experience for many employees. Although Kahn’s model of engagement versus disengagement captures part of the picture by looking at how much of one’s “self” is put into one’s work, it ignores the idea of overengagement and the possibility that there can be negative consequences to putting too much of that self into one’s work. Maslach and colleagues’ engagement versus burnout model captures the consequences of the construct of burnout, but is less clear about the cognitive aspects of burnout and whether or not overengagement plays a direct causal role. On the other hand, SET-based frameworks of engagement seem almost exclusively cognitive, and like Nakamura’s theory, do not consider negative consequences of high levels of engagement.

What is needed is a theory that synthesizes engagement, overengagement, and burnout into a single testable model with predictive and explanatory power. Such a model could disentangle the emotional and physical aspects of burnout, and explore multiple routes for reaching burnout and/or fatigue. For example, it may be the case that burnout can occur solely

as the result of excessive work hours, without being preceded by engagement or overengagement as a precondition (e.g., without having been “on fire”).

## Methods

In order to explore these ideas, I conducted a two-part study of engagement and overengagement in physicians. I decided to study physicians for a number of reasons, including the longstanding concern with burnout in helping professions in general (Maslach, 1982; Wessells, 1989b) and the anticipation that the extant literature would permit exploration of the cognitive and psychological aspects of burnout. Medicine is a well-established profession that possesses (if not exemplifies) the six characteristics of a profession as set forth by Gardner and Shulman (2005). The guidelines, traditions, and standards of medicine have stood the test of time, even as the environment in which physicians must practice is changing rapidly due to technological advances and managed care. Furthermore, medicine seems to offer physicians a high level of challenge, intrinsically motivating work, a high level of status as well as financial rewards, and the opportunity to help people by performing meaningful work. Medicine is also well known for its long hours and demanding schedule, increasing the chances of finding work/life balance and burnout issues, and offering an opportunity to look at long work hours by itself as a possible pathway to burnout.

### *Group I: Veteran Physicians*

The first part of the study involved reviewing archival transcripts from interviews conducted with physicians as part of the original GoodWork Project. I was granted access to the eleven unrestricted transcripts from the third phase of the GoodWork in Medicine project. (See Appendix A for a copy of the protocol used for these interviews.) This phase was the largest part of the GoodWork in Medicine project; it included approximately 50 internists, OB/GYNs, and

cardiothoracic surgeons from Massachusetts, New York, and Vermont who were nominated by their peers and community for their commitment to doing good work (GoodWork Project, 2006). Ten of the eleven subjects in this part of the study were white and one subject was Asian. The age of the subjects was not queried directly as part of the interview protocol, but estimates<sup>3</sup> of subjects' ages at the time of the interview range from 43 to 79 years, with an average age of 55 and a median age of 53. Gender and specialty information for subjects in Part I are summarized in the following table:

*Table 1: Gender and specialty distribution of subjects in Group I: Veteran Physicians*

<b>Specialty</b>	<b>Males</b>	<b>Females</b>	<b>Total</b>
Internal Medicine	4	2	6
OB/GYN	2	1	3
Cardiothoracic Surgery	2	0	2
Total	8	3	11

These interviews were conducted by members of the GoodWork Project team and took place between March and July of 2005. I reviewed all eleven of the unrestricted transcripts with a specific focus on responses connected to the search for meaning and purpose in medicine, engagement and interest, and evidence of burnout (see Appendix C for the codebook and definitions used).

### *Group II: Young Physicians*

In part because these existing transcripts were conducted primarily with older established physicians, I decided to gather additional data from younger physicians who were either still in training (residency or fellowship) or had completed their medical training within the last five

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<sup>3</sup> Ages of Group I subjects reported in this paper may be estimates based on the number of years in practice.

years. For this second part of the study, I interviewed eight physicians for approximately 30-45 minutes each about their experiences with and perceptions of engagement, disengagement, and burnout. Interviews were semi-structured, and included questions used by Kahn (1990) as well as items from the interview protocol in the third phase of the GoodWork in Medicine study. (See Appendix B for a copy of the interview protocol used for the second part of the current research.) Subjects were recruited primarily using a convenience snowball sampling technique that originated with an e-mail to members of the Specialized Master’s program at the Harvard Graduate School of Education. Initial subjects then helped refer and recruit additional subjects to be interviewed through their own professional networks.

The ages of the eight subjects in Group II of the study ranged from 31 to 36, with an average age of 34 and a median age of 33. Five subjects were white; three were Asian. Gender and position held by subjects in Group II are summarized in the following table:

*Table 2: Gender and position distribution of subjects in Group II: Young Physicians*

<b>Position Held</b>	<b>Males</b>	<b>Females</b>	<b>Total</b>
Residents/Fellows – Non-surgery	2	2	4
Residents/Fellows – Surgery	1	1	1
Attending Physicians – Non-surgery	0	2	2
Total	3	5	8

Participation was completely voluntary and confidential. All subjects completed informed consent forms and received no compensation for their participation. Subjects were told that the purpose of the study was to look at work/life balance and job attitudes; the term “burnout” was not used to limit respondent bias. Interviews were recorded where feasible, based on the noise level of the interviewing location and the preference of the subject.<sup>4</sup>

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<sup>4</sup> Two subjects asked not to be recorded, and one interview could not be recorded due to background noise.

## Findings

Several themes emerged both within and across each participant group. Responses are reported by theme with specific numbers separated by group where appropriate.

### *Meaningful Work*

Eighteen<sup>5</sup> of the 19 subjects expressed a sense of meaning and purpose in their current work, and all subjects reported feeling that medicine overall was a very meaningful profession. The specific source of this sense of meaning and purpose seemed to have two general sources: first, a love of science, and for surgeons, working with their hands; and second, a desire to help people through patient interaction. A typical response to the question “what specifically about medicine makes it personally meaningful to you?” reflects the first reason for meaningfulness:

... I always liked science, and I like the ability to understand why things happen. Also, I think I'm a bit of a detective, and that's probably a reason why I went into internal medicine because ... you're a diagnostician, you're solving problems, solving puzzles, putting things together. And I like that ability to take a lot of different things together and synthesize and come up with explanations. (male age 51)

The motivation reflected in this reason for meaningfulness is intrinsic to the work itself, but is focused inward on the personal joy and satisfaction that the physician experiences as a direct result of the work. Four of the 11 subjects in Group I, and six of the eight subjects in Group II, reported being drawn to medicine and finding it meaningful due to a professed love of science, and/or the opportunity to work with one's hands.

On the other hand, a typical response reflecting the second reason for meaningfulness is:

I'm still one of the old guard. I'm a guy who went into medicine because I liked taking care of patients, because I care about patients, because I feel responsible for what I do. (male age 55)

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<sup>5</sup> One subject, a surgical resident currently spending a year doing research, expressed frustration with the research aspect and a desire to return to a clinical environment. However, she conveyed a high level of engagement with medicine overall.

The motivation reflected in this reason for meaningfulness is also intrinsic to the work itself (rather than extrinsic or monetary rewards); however, it is focused outward on helping patients rather than reflecting a personal interest in the subject matter or the kinds of medical problems that the people bring with them. Reasons for meaningfulness that were coded as “helping others” were considerably less frequent in the Group II subjects (three out of eight) than in the Group I subjects (eight out of 11).

One possible reason for this finding may be related to Wrzesniewski, McCauley, Rozin, and Schwartz’s (1997) distinction among jobs, careers, and callings. According to this framework, people are considered to view their work as a job if they focus primarily on extrinsic or financial rewards; as a career if they focus on advancement within an accepted career ladder; and as a calling if they focus on the enjoyment of fulfilling, socially useful work. I hypothesize that physicians who tend to view medicine as a calling will reveal a more humanistic or altruistic slant to their explanations for why they entered the field of medicine and/or find it meaningful. Because more Group II responses focused on how interesting the subject was to them personally, choosing medicine for these participants may be closer to how people in non-helping professions make career decisions (e.g., deciding to become a software engineer because one likes computers) rather than being primarily motivated (or “called”) to serve a larger purpose.

### *Impact of Patient Care/Interaction*

Helping professions have been defined as those that place their vocational energy into helping others to improve physically, emotionally, spiritually, etc. (Wessells, 1989a); included are health care professions, social work, and teaching. Wessells writes that for workers in these areas

There are many variables that contribute to a “successful or unsuccessful” outcome of these efforts, most of which are beyond the influence of the

helping professional. Unlike engineers or mechanics who have more influence over work outcome, helping professionals are faced with the proposition of separating their efforts from all of the other influences on the client in order to judge outcome-based success. (p. 15)

Given the inherent variable nature of helping professions, it is not surprising that the biggest unknown is often the patient him- or herself, and that patient interaction can be a dual-edged sword that can either increase or jeopardize physician well-being. As an OB/GYN in Group I explained, “Mean people have babies, so do neurotic people and so do anxious people and so do depressed people, and women in bad marriages. They all have babies. And they all have health problems. And that gets challenging when they're not nice people. It definitely doesn't make you--make me--rise to the occasion.” (male age 43) Echoing this sentiment, Lynn (1989) suggests that direct patient care is a frequent cause of burnout, and recommends finding ways to reduce direct patient contact, such as academic or administrative work, as a strategy for reducing and preventing burnout among physicians.

However, many physicians, including those in the current study, view direct patient contact as the solution to burnout, rather than its cause. In a survey performed by the medical journal Hippocrates, “73% of physicians cited ‘daily interaction with patients’ as the most important or rewarding aspect of practicing medicine” (Gundersen, 2001, p. 146). When asked what burnout felt like to her, a Group II subject explained that after talking with a patient, she zones out of the problem that the patient is presenting and feels like she doesn’t care. She said that she was actually engaged while she was talking to the patient, and that it wasn’t just an act she was putting on for his benefit, but that she was not able to sustain this level of engagement after she left direct contact with the patient. This idea of direct contact with patients as a motivating factor is consistent with a response from a subject in Group I:

One of my classmates in medical school who I see periodically said when I saw him the last time, he said, “Every time I get discouraged about

medicine, I just go look for a patient.” ... The bottom line is that when you sit down in a room with a patient and help them sort through a problem, there's something very satisfying about that. (male age 55)

While there may not be a direct contradiction between these views, they are at the least different interpretations of the impact of direct patient contact.

### *Work-Life Balance and Overengagement*

Another theme that consistently emerged was related to work-life balance. Although the Good Work Project medical protocol did not contain any specific questions about work-life balance, the issues and challenges of combining medicine with non-work aspects of life arose spontaneously for all 11 subjects in Group I.

Perhaps not surprisingly, some of the most poignant responses in Group I came from the female subjects. One subject reported that work/life balance and family responsibilities caused her to change to a concierge style of medicine:

And then I could see the wear and tear on my whole family where I couldn't be there for this or that. ... I guess it was my family that was the biggest kind of turning point. (female age 48)

Another recounted the following scenario:

When I was taking call, I'd go off to work and they would say, “Are you home for dinner tonight, Mom?” It was like, “Ugh, no.” It was like a kid stabbing you in the heart. When they were very young, one of them said to me, “When I grow up I'm going to be a babysitter so I can be home with my children.” (female age 54)

Group II subjects were asked specifically about the number of hours they worked in an average week and their specific challenges in balancing work and non-work activities. Due to the changing nature of shifts, call, and rotation, and to the numerous types of roles and appointments they held, it was difficult for subjects to calculate exactly how many hours they worked in an average week. However, all four residents and both fellows reported definite

challenges with the time demands of being in training. The two post-training subjects in Group II admitted that while the hours in their current jobs were still long, they had more control over how they spent their time and the level/quality of work they were doing was much better.

One of the subjects that I interviewed (female, age 33) said that she chose the residency program that she did because she thought it would offer more work/life balance than other programs that she looked at. She reported that during her interview for the residency position, the people she talked to seemed to have more lives outside of work because they mentioned hobbies such as skiing, etc. However, now that she is in the residency program, she is finding that there is not as much work/life balance as she had hoped.

Several subjects across both groups suggested that expectations regarding work/life balance and the number of hours that should be spent at work have changed over the last few decades. However, reactions were mixed as to whether or not this was a positive thing. One Group I subject reported:

... I feel like an old fuddy-dud sometimes, but I really find that a lot of the newer, younger folks set very strict limits. They want to work a certain amount of hours, don't want to take any of their work home. And I'm not talking about a briefcase full of charts; I'm talking about work home in their mind. At 5.01, they turn their brain off. And that's never been my work ethic...(male age 51)

This sentiment was also common in the first phase of the GoodWork in Medicine study (Solomon, DiBara, Simeone, & Dillon, 2000):

The profession of medicine is currently at a crossroads between the private, autonomous, personal practitioners of the past and future physicians, whose role is not yet clear. There is a fear that being a physician in this day and age is qualitatively different than in the past, and that the profession itself is changing from one of a calling to that of a job. (p. 3)

However, not all reactions to the idea of generational differences in work-life balance expectations were negative. Another Group I subject cited her daughter as an example of how an

increased interest in work-life balance is a positive result:

I think the younger generation, like my daughter the veterinarian is a very good representation of that generation in the sense that she's very, she's got really good boundaries and things are very well partitioned. I mean, she works hard and she works a great deal, but she's able to kind of say OK, but then is the time that I do my social stuff . . . I think that's important. I think you have to do that, I really do. I mean, I am part of the older generation, and I think we didn't do it as well. And it makes it harder for all the people around you. (female age 48)

The finding that expectations around work-life balance seem to have changed over time suggests a possible cohort effect. There also seems to be a difference between the responses of men and women. One of the older subjects commented on the changing demographics of medicine as the result of more women entering the workforce:

...[M]ore than half the practice is now women. Many of them don't work full-time. Women tend to also be responsible more for their families than men do. It's an awesome responsibility. I don't see how they do it. And so that has an impact. I think women have to divide their loyalties more than men who had a career and had somebody at home that was supporting them. It's just a different dynamic, and it's out there in the workplace a lot now. And it's no different in medicine than it is any other places. (male age 55)

Strategies for handling work/life interference issues include 1) blurring the boundaries between work and home and 2) taking control over how work is structured. For example, the physician who changed her practice to a concierge model observed that she feels more comfortable than before in blurring the distinction between the work and non-work spheres of her life:

I mean, there have been a couple times where people called me and I was running. ... So I've met them here at the office in my running clothes, which I wouldn't have ever done before. (female age 48)

One physician notes that he set up his group/practice with at least a partial eye toward enabling more work/life balance for the employees, and comments on how both he and his partners try to balance work with their lives outside of medicine:

In general, this has been a very accommodating practice. We've designed the practice in a way that allows physicians to have a life and have families and have other interests in their lives. And so we try not to give up things that we really like to do. ... We all try to set aside time for that and not let our careers overwhelm us because it's just not good for your mental health if you get overwhelmed by that. (male age 55)

### *Burnout*

Although Group I subjects were not questioned about burnout specifically, they initiated conversation on this topic with some regularity. Four out of 11 subjects mentioned the topic on their own. I specifically asked the subjects in Group II about burnout, and all 8 reported that they had felt burned out at some point in their (relatively short) medical careers.

When asked for the causes of the high prevalence of burnout, physician responses varied widely. One subject repeatedly pointed to long working hours alone as the cause of burnout in the medical profession, while another claimed that it was the expectations of people entering the profession for a level of work/life balance that he didn't feel was realistic. One subject was adamant that a significant cause of burnout was the low pay of medical residents; he complained that he was highly trained and very intelligent, and yet he couldn't afford to buy some of the material status symbols that he saw more senior physicians sporting. While the relationship between low financial compensation and burnout may not be as direct as this subject proposed, low salaries<sup>6</sup> and financial concerns did drive some residents and fellows in Group II to moonlight, which in turn increased stress and time constraints.

Similar to possible gender differences in perceptions of work-life balance, there may be gender differences regarding burnout as well. A study of 2,326 physicians drawn from a national sample reports that female physicians are 60% more likely to report being burned out than male

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<sup>6</sup> Average medical resident salary is \$40,000 according to the New England Journal of Medicine (Steinbrook, 2002), which is significantly lower than average salaries in other medical professions. For example, at Massachusetts General Hospital, physician's assistants are paid \$67,000 to \$77,000 per year, nurse practitioners are paid \$53,000 to \$98,000 per year, and residents are paid \$42,000 to \$58,000 (Weinstein, 2002).

physicians (McMurray et al., 2000). However, subjects in this study were not formally assessed for the frequency or degree of burnout that they reported experiencing, and the small sample size precludes reasonable speculation about gender differences in burnout in the current study.

### *Reaction to the 80-Hour Resident Workweek*

With the goal of promoting safe patient care and resident learning and well-being, on July 1, 2003, the Accreditation Council for Graduate Medical Education (ACGME) instituted an 80-hour per week limit to the number of hours residents in accredited residency programs can work. To people who are unfamiliar with the traditional demands of the medical profession 80 hours may still seem excessive; a recent Harvard Business Review featured an article entitled “Extreme Jobs: The Dangerous Allure of the 70-Hour Workweek” (Hewlett & Luce, 2006) which defined “extreme” jobs as involving at least 60 hours of work per week, among other things, and warned against the dangers of workaholism.<sup>7</sup>

However, strenuous time demands are considered by many to be a mainstay of the medical profession, ensuring care whenever the need for care arises, and providing a convenient “trial by fire” with built-in incentives for ascending up the hierarchy. Thus, when the ACGME guidelines were introduced that not only limited residents’ duty hours but also introduced a possible reversal of the scut-flows-downhill norm, reactions of the larger medical community were sharply divided. Some physicians welcomed the workweek restrictions as a welcome step in the right direction that could potentially reduce medical errors and improve patient care; others, particularly surgeons, argued that the quality of training for surgical residents would decrease at the cost of patient care. Specifically, surgeons cited concerns with the lack of exposure to certain surgical operations due to a reduced number of hours at the hospital.

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<sup>7</sup> Thanks to Scott Seider for pointing me to this article.

Reactions of subjects in both Group I and Group II to these new guidelines were a microcosm of the responses above. In Group I, three of the 11 subjects explicitly referenced the ACGME ruling, with one subject in favor of the decision, two subjects against the decision. The two surgical residents in Group II expressed vehement frustration with the introduction of the 80-hour workweek rule. Echoing the reasons cited by the larger surgical community, they felt that it restricted the continuity of care that they were able to provide for patients and limited the number of hours of training that they were receiving. When one of these subjects was asked if he ever made medical errors due to fatigue or exhaustion, he responded, “No, because when I feel that I don’t have the ability to do something correctly or make a sound decision, I am not afraid to ask one of my colleagues to step in and help me” (male, age 33). Interestingly, although burnout is implicated with the quality of patient care (Shanafelt, Bradley, Wipf, & Back, 2002), initial reports on the impact of the work hour restrictions by themselves have not indicated a significant change in either medical errors (Biller et al., 2006) or resident burnout (Gelfand et al., 2004).

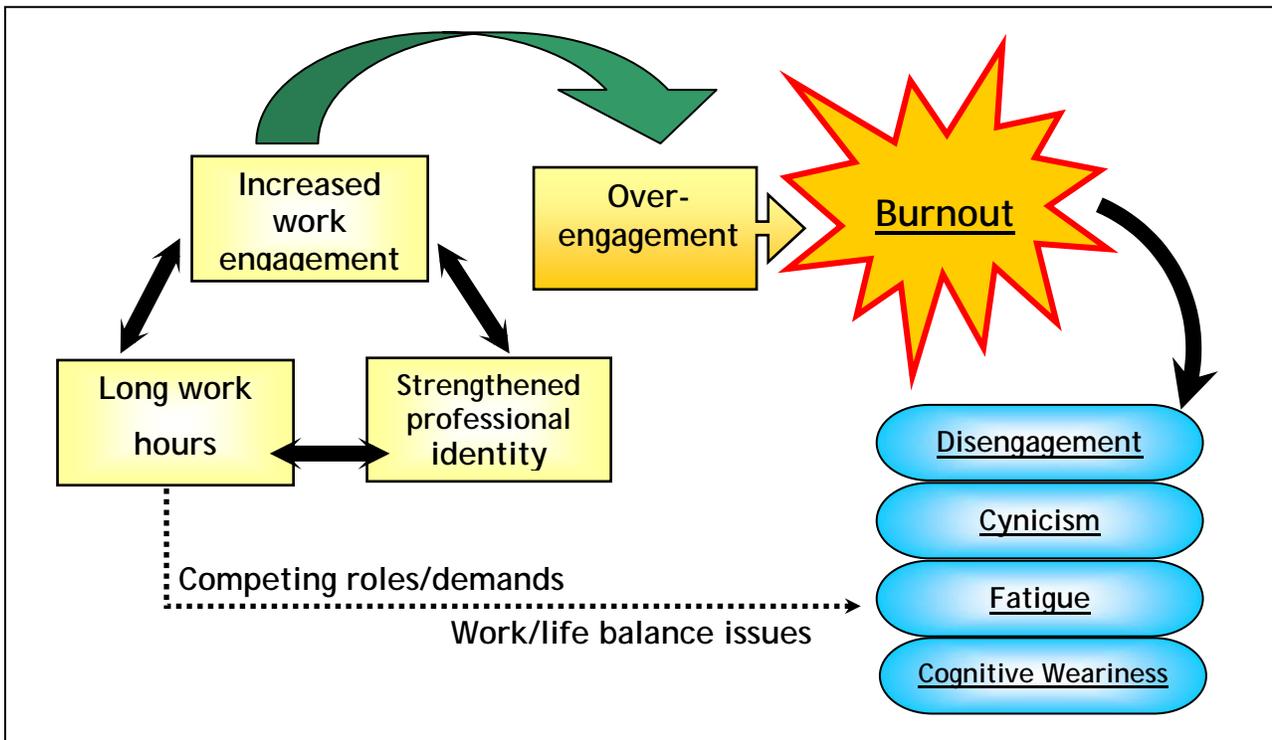
### Discussion

Although subjects were universally interested in the topics of medical education, work-life balance, and burnout, their responses reflect considerable variation as to their conceptions of both the causes of burnout and what exactly they perceived burnout to be. A key question concerns the relationship between physical exhaustion/fatigue and burnout. For example, can burnout be caused merely by the number of hours worked, or is a more complex relationship involving emotional and cognitive engagement necessarily implicated?

A few subjects in each group seemed to equate burnout with the mere physical feeling of exhaustion and extended fatigue. Under this framework, it follows that such “burnout” could indeed be caused solely by long hours. However, I suggest that this phenomenon should not be

considered “true” burnout, which is considerably more complicated in terms of both antecedents and outcomes. Accordingly, I propose the following theory of the relationships among engagement, overengagement, burnout, and professional identity:

*Figure 1: Proposed model of engagement, overengagement, and burnout*



As depicted in the diagram, the path to burnout is complex and originates in a triangle of cognitive, emotional, and physical factors. Specifically, I theorize that long work hours combined with a high level of meaningfulness of one’s work increases or strengthens professional identity. Similar to Kahn’s formulation of engagement, I see professional identity as the degree to which people identify with their work and relate key aspects of their jobs to their selves. Subjects universally claimed that medicine was personally meaningful to them or otherwise expressed finding meaning in their work, regardless of whether that meaning was driven by a sense of altruism or personal competence and interest. Furthermore, even though

residents were not officially working more than 80 hours per week, that is still twice as many hours as the standard workweek defined by the Department of Labor in the Fair Labor Standards Act. Although merely performing generally meaningful work for the majority of one's waking hours does not ensure a strong professional identity, it seems that such a stance would help solidify the connection between one's work and one's sense of self in a professional context.

The relationship between professional identity and increased work engagement is cyclical and self-reinforcing, but at some point this increased level of engagement has the potential to cross the line and become overengagement, which in turn can lead to burnout. Although subjects in Group I of the current research study generally found direct patient interaction to be a refreshing reminder of why they entered medicine in the first place, the existing literature suggests that such interaction may also be a direct contributor to burnout. Emotional connection with a patient and his or her family around critical care and end-of-life issues may lead to a kind of "compassion fatigue," although Huggard (2003) notes that detachment does not protect physicians from burnout.

According to this proposed model, therefore, engagement and then overengagement is a necessary condition for true burnout, as opposed to mere physical fatigue, to occur. The dotted line leading from the "long work hours" box to the "fatigue" oval offers an alternative "back-door" route that explains why many subjects reported that long work hours alone led to something that they perceived as burnout. Via this route, time constraints are theorized to intensify the pressure of competing roles and demands, leading to work-life balance issues. This pattern is particularly evident in the responses of subjects with families, and especially those with young children. These subjects describe a kind of tug-of-war between work hour requirements and the desire to spend time with their children, resulting in conflicts at the

emotional, cognitive, and practical levels (including scheduling constraints). The proposed model suggests that over time this role strain will lead directly to simple fatigue, rather than to the more comprehensive construct of burnout.

By attempting to disentangle the emotional and physical aspects of burnout, and by exploring multiple routes for reaching burnout and/or fatigue, this model offers several advantages over the models that were discussed previously. Although I draw from Maslach's conceptualization of burnout and the extension of that theory into engagement, I extend those ideas further with the introduction of overengagement as crossing over the line. This model also draws from Kahn's emphasis on the embracing of roles and investment of self in work, as reflected in the concept of strengthened or increased professional identity as a precursor to overengagement.

Although the findings of the current study are intriguing, several limitations should be kept in mind. From a methodological perspective, one limitation of this study is clearly the small sample size and the non-random nature of the selection of subjects. Additionally, although most of the Group II subjects who were in training-level positions were doing many aspects of a "real" (e.g., non-training) job, subjects were divided as to whether they viewed their current work as a job or as a continuation of their formal education. The low pay, long hours, level of work, and level of status of residency and fellowships are very different from those of an attending physician, and are clearly reflected in these subjects' responses. In addition, this study did not attempt to measure the burnout level of the subjects, in part because the most common instrument to measure burnout, the Maslach Burnout Inventory (Maslach et al., 1996), is rather expensive to purchase, administer, and interpret. Thus, I am relying on self-report for subjects' estimations of their own levels of burnout, as well as their untrained observations of the burnout

levels of their colleagues. A final limitation is related to the generalizability of these findings to professions other than medicine, especially non-helping professions. Given the aforementioned characteristics of helping professions that may contribute to the prevalence of burnout in these fields, one should be cautious about extending the findings and conclusions of the current research study to other populations.

Despite these limitations, more comprehensive empirical tests of the proposed model should provide insights into the complex web of relationships among engagement, professional identity, and burnout. Generational differences seem like an especially important demographic factor to explore in more depth, especially given the recent fundamental changes in the landscape of medical education and medicine writ large. As new cohorts of medical students complete their residencies entirely under the aegis of the ACGME duty-hour restrictions, additional data on the impact of these rulings will be available for study. With carefully designed studies and definition of terms, the relationships among work hours, engagement, and GoodWork will continue to emerge.

Physician burnout is of special concern to society due to the potential impact on medical errors and patient care, as seen in the opening vignette about Hank Goodman. Medicine deals with matters of life and death where the consequences of errors are measured in terms of human health and welfare. But all of us are susceptible to burnout, regardless of our profession. Based on the findings that I have presented, it would seem that further research into the relationship among engagement, overengagement, and burnout is warranted. Although the precise interplay of causes behind any individual case of burnout will vary, I hope that this model can help to untangle the different factors that can lead to the burnout.

<b>Appendix A: Interview Protocol for Part I (Existing Transcripts)</b>
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**I. Trajectory in Medicine**

1. What is the focus of your work these days?
2. How long have you been a (specialty)?
3. How long have you been here (current practice/institution)?
  - What brought you here?
  - Where did you work before coming here?
4. When did you first think about becoming a doctor? What led you to become a physician in the first place? Why did you choose your specialty?

**II. Values, Challenges, and Strategies**

5. What makes practicing medicine/being a (specialty) personally meaningful to you?
  - Are there aspects of your work (probe for specialty, institution, setting, medicine, other forces) that threaten to diminish how meaningful your work is?
  - What are you doing to deal with this?
  - What personally meaningful things can you imagine sacrificing while continuing to be a (specialty)?

OR (alternate wording):

What types of constraints in your practice are you willing to accept while continuing to experience your work as personally meaningful?

6. To what extent do you think your values are shared by other physicians?
7. How do you define success for yourself?
8. Can you describe your practice?
  - How many physicians are in your practice? Is it a multi-specialty practice?
  - Describe the patient population you serve (age, gender, race, socioeconomic status)
    - Can you estimate what percentage of your patients have private insurance? % Medicare? % Medicaid? % with no health insurance?
9. What is the mission of your practice/institution, and how do you know when it's being fulfilled? (*or*: Would you say that your practice has a central mission?)

- Are there things that threaten to alter or diminish your institution's mission? (Probe for specialty, institution, setting, medicine, other forces when appropriate.)
  - What are you doing to deal with this?
  - What of your institution's/setting's mission can be sacrificed while continuing to achieve its goals?
10. What is the overarching purpose of the profession of medicine, and how do you know when it's being met?
- Are there things that threaten to alter or diminish medicine's purpose? (Probe for specialty, institution, setting, medicine, other forces when appropriate.)
  - What are you doing to deal with this?
  - What of medicine's purpose can be sacrificed while continuing to achieve its fundamental goals?

### **III. Responsibilities**

11. To whom or what do you feel most responsible?
12. Do you ever feel conflicting responsibilities between what is personally meaningful to you, what's best for (setting/institution), the profession, and patients?
- If so, please give an example and discuss how you manage this.

### **IV. Supports**

13. What personal qualities do you have that you think have helped you to achieve your goals?
14. Who or what has helped you to become the physician you are? What opportunities or support structures enabled you to become a physician?
15. When you need advice, who do you go to? Do you have a role model or paragon you keep in mind when doing your work?
16. What, if anything, did medical school and internship/residency fail to prepare you for?

### **V. Ethical Issues and Dilemmas**

17. Tell me about a difficult professional/medical decision you've had to make.
18. What ethical concerns do you have about medicine at large and your specialty?

19. Have you ever been involved in a situation that violated your sense of right and wrong?
20. Have you ever stood by your principles to your own detriment, or what other thought would be your detriment?

#### **VI. Changes and the Future of Medicine**

21. In what key ways has medicine changed or remained the same since you've been a physician?
22. In what key ways has your specialty changed or remained the same since you've been a physician?
23. What would you change about medicine as a whole or your specialty, if you could?
24. What does the future of medicine/your specialty hold?
25. How is the current medical education system training future physicians?
26. How are new technologies impacting the practice of medicine, yours in particular?
27. What is important for you to transmit to younger people, both in words and deeds? What do you hope to model for younger physicians?
28. Would you recommend for your own children or close relatives to go into medicine? If not, why? Would you definitely choose that career today?
29. Do certain beliefs—religious, spiritual, cultural, political, or other—motivate, inspire, or guide you in your work? If so, what are they and how do they influence your work?

**REMINDER: ASK SUBJECT FOR NAMES OF  
OTHERS TO INVITE FOR INTERVIEWS**

<b>Appendix B: Interview Protocol for Part II (My Interviews)</b>
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**BACKGROUND QUESTIONS**

- How long have you been here (current practice/institution)?
  - What brought you here?
  - Where did you work before coming here?
- What is the focus of your work these days? How many different appointments/jobs do you have?
- Why did you decide to become a (specialty)? How long have you been a (specialty)?

**MEANINGFUL/ENGAGING**

- How would you describe your ideal job?
- How meaningful do you find the work that you do? What makes practicing medicine/being a (specialty) personally meaningful to you?
- Flow is often defined as a state where you seem to merge with the task; time passes, and you are totally into what you are doing. Do you ever experience states of flow? If so, under what conditions do you experience flow?
- On a scale of 1 to 5, how satisfied are you with the following aspects of your job:
  - (1 = very dissatisfied, 5 = completely satisfied)
  - Actual work that you are doing on a day-to-day basis
  - Number of hours that you are working
  - The specific organization that you're working for
  - Salary
  - Being a doctor overall
- What is most challenging (easiest) about your job? What do you think makes these aspects of your job so challenging (easy)?
- How much control do you have over different aspects of your job, in terms of patient load, scheduling, making referrals, etc.

**SUCCESS**

- How do you define success for yourself?
- How important is money to you as a reason why you decided to become a physician?

**LOYALTY/COMMITMENT**

- Do you ever think of changing jobs, and if so, why?
- Do you ever think of changing careers (to something other than medicine)? If so, to what?

## **WORK/LIFE BALANCE**

- Can you tell me a little bit about your life outside of work? What other demands/roles/commitments do you have?
- Marital Status:
- Children (and ages):
- How are childrearing responsibilities divided? What are your sources of support for taking care of your kids?
- How supportive is your current supervisor/organization about your family/non-work commitments?
- How much time do you spend working at an average week? Do you feel that you spend the right amount of time working; do you wish that you could spend more time at work; do you wish that you could spend less time at work?
- How many hours would you say that you work in an average week? When/how does this vary?
- Do you ever feel exhausted from the number of hours that you work?
- How long do you think you could continue working at your current pace/# of hours?
- Do you think that it impacts the technical quality of the work that you do?
- Do you ever feel burned out? What does that feel like to you? Did you feel that you were engaged with your job before you were burned out?
- Do you know colleagues who are burned out? Why do you think burnout in physicians occurs?
- How often do you and your colleagues talk about work/life balance issues or burnout?
- Were you aware of the time demands/burnout probability before deciding to become a physician? How has your perception of the time constraints (and the impact of these constraints) changed over your career?

## **RESPONSIBILITY**

- To whom or what do you feel most responsible?

## **FINAL QUESTIONS:**

- If you could do everything over again, would you still make the same career decisions again? If not, what would you do differently?
- Can you give me the names of anyone else that might be able to participate in this study?

## Appendix C: Codebook for Group II Interviews

Codes and definitions used for interviews with subjects in Group II are listed below:

Code	Definition
ABOVE AND BEYOND THE CALL OF DUTY	Examples of a person going beyond the regular requirements of the job; doing more work or higher quality work than is normally required or expected
BAD THINGS ABOUT THE JOB	Things that people don't like about their jobs; things they wish they could change about their job; may refer to content of the job itself, job-related relationships, work-related demands or requirements, or the organization at which the job is performed.
BURNOUT	References to being explicitly "burned out," fatigue, exhaustion, emotional distance
CAREER TRAJECTORY	References to career decisions, the specific career path that a person has taken, or the career paths of people in that profession in general
CHALLENGE	References to parts of the job that are difficult or challenging, particularly in a technical sense or involving technical skills, expertise, or competence
LOYALTY	References to changing jobs, loyalty to the job, manager, organization, or profession; commitment
ENGAGING/MEANINGFUL WORK	References to engaging or meaningful the work is; being involved in their work or job; being intrinsically motivated or energized
ENJOYMENT	References to aspects of the job that a person really enjoys for its own sake, that they find fun and interesting
ETHICAL	References to things that are right or wrong; meeting or adhering to ethical standards
EXCELLENT	References to adhering to high standards of quality, low tolerance for defects or cutting corners
JOB/CAREER/CALLING DISTINCTION	References to work being a job (extrinsically motivated, merely picking up a paycheck) vs. a career (commitment to advancing through hierarchical structure) vs. a calling (serving some higher need or fulfilling a larger purpose)

Code	Definition
LARGER PURPOSE	References to the work serving a higher purpose, helping to make the world better, helping others; also includes references to mission statements of an person, organization, or profession
INTEREST IN SCIENCE/MEDICINE	References to enjoying or being interested in medicine or science for the subject matter itself, perhaps also in addition to other reasons. For surgeons, this may also include a desire for or finding joy in working with one's hands.
MONEY/FINANCIAL CONCERNS	References to salary, compensation, finances; includes aspects of running a business or practice, paying malpractice insurance, lawsuits, and personal financial situations.
MULTIPLE ALLEGIENCES	References to having different constituencies to satisfy; different demands coming from different people/parties; conflicts between different stakeholders or customers
PROFESSIONAL IDENTITY	References to how a subject feels about being a physician or viewed as a physician; how physicians view themselves in terms of their profession
RESPONSIBILITY	Responses to the question: To who or what do you feel most responsible?
SENSE OF DUTY	References to duty, fairness, how the world should be or operate; sense of responsibility to do certain things or act in a certain way because of formal or informal obligations
SUCCESS	References to how people define success for themselves; how other people define success, societal expectations of success, etc.
TIME CONSTRAINTS	References to not having enough time to do all the work-related tasks that need to be done (Do not include references to lack of time for non-work activities; code that under Work/Life Balance)
WORK/LIFE BALANCE	References to not having enough time to do non-work activities, including hobbies, community or religious commitments, family obligations and relationships, relaxation, vacations, housekeeping, etc.

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