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## IMPOSING LIABILITY IN THE UNITED STATES MEDICAL RESIDENCY PROGRAM: EXHAUSTION, ERRORS, AND ECONOMIC DEPENDENCE

Merit Buckley\*

Resident Michael Greger, awakened at 3 a.m. for the fifth time that night, listened as a nurse ticked off a long list of blood test results for one of his patients, then fell back into an exhausted stupor. Early the next morning when he checked the patient's chart, Greger was horrified: He had realized that one of the blood tests clearly showed the man was in imminent danger of having a potential fatal arrhythmia, a heart rhythm disturbance. The patient was rushed to intensive care.<sup>1</sup>

The current state of American graduate medical education would scare most patients. The most inexperienced, overworked, and sleep deprived doctors are treating the countries sickest patients.<sup>2</sup> In response to the state of affairs, several states have responded with regulations of medical residents' work hours. For several reasons, mainly the engrained culture of graduate medical education and the economic dependence on medical residents as a form of cheap labor, state regulations have failed in reforming the medical residency program in the United States.<sup>3</sup> In response to the failure of state regulation, the Accreditation Council of Graduate Medical Education (ACGME) has implemented a privatized system of regulation. The ACGME requires teaching hospitals to enforce work hour regulation in order to be an accredited teaching hospital that qualifies for federal funding.<sup>4</sup> Unfortunately however, this system has also struggled with a lack of enforcement and compliance.<sup>5</sup> The failure of state and private

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<sup>1</sup> Sandra G. Boodman, *First, Get No Sleep*, WASH. POST, March 27, 2001, at H14.

<sup>2</sup> *Id.*

<sup>3</sup> Craig Horowitz, *The Doctor Is Out*, N.Y. MAG., Oct. 27, 2003. Available at [http://nymag.com/nymetro/health/features/n\\_9426/](http://nymag.com/nymetro/health/features/n_9426/) (last visited Jan. 10, 2008).

<sup>4</sup> ACCREDITATION COUNCIL FOR GRADUATE MED. EDUC., ACGME FACT SHEET, available at <http://www.acgme.org/acWebsite/newsroom/ACGMEfactsheet.pdf> (last visited Jan. 8, 2008).

<sup>5</sup> See Robert N. Wilkey, *Federal Whistleblower Protection: A Means to Enforcing Maximum-Hour Legislation for Medical Residents*, 30 WM. MITCHELL L. REV. 331 (2003) (Discussing the failures of the ACGME duty hour regulations).

regulatory efforts has led to the proposal of the Patient and Physician Safety and Protection Act, a federal statute that seeks to address the work hour reformation issue plaguing the nation's graduate medical program.<sup>6</sup>

The trouble with narrowing the focus on work hour regulation is that the reformation of graduate medical education does not and should not end with work hour regulations. The consequences of imposing regulations on medical residents, especially regulations that may be unrealistic for the current state of graduate medical education, must be considered. The proposed regulations have alerted patients and lawyers alike, to the substandard level of care dispensed at many hospitals. While the American public must be alerted to the potential dangers that face patients, the issue of fairness for imposing liability on the medical community must also to be addressed concurrently.

The proposed regulations expose medical residents to a vulnerable position of facing liability largely because they are forced to work in a "broken" health care system that is highly dependent on their labor and exploitive of their services. The medical residents do not have the choice to work less hours or work under less physical exhaustion, yet they face the liability for their mistakes. To further complicate the implications of increased liability stemming from work hour regulations, the nation's courts have yet to develop a consensus on what standard of care medical residents, supervising doctors and the hospitals themselves are to be held to in medical malpractice or personal injury cases resulting from resident's exhaustion.

Therefore, the new era of work hour regulation may potentially increase the risk of liability for medical residents and hospitals by alerting the public to the substandard care being dispensed at the over 8,000 of the nation's teaching hospitals, despite the absence of an established standard of care appropriate for resident's errors. As students and subordinates, medical residents have little control over the graduate medical programs for which they are a part of and their lack of control is accompanied by a work environment that invites error. When these errors occur, it is the resident's that must confront a court system that has not yet established a standard of liability for their population. For that reason, when discussing the work hour regulations and the reformation of the graduate medical program in the United States, it is crucial that the corollary liability issues be examined as well.

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<sup>6</sup> Patient and Physician Safety Act of 2003, S.952, 108th Cong. (2003); Patient and Physician Safety Act of 2005, H.R. 1228, 109th Cong. (2005).

Part I of the note will discuss the medical residency program. Part II will discuss the realities of the cognitive and psychological effects of sleep deprivation and the effects that these conditions have on medical errors committed by residents. Part III will discuss the regulatory schemes proposed and enacted to deal with the resident work hour issue. Finally, part IV will discuss the standard of liability that exists for medical residents and the relation of the liability to the work hour regulatory schemes.

## **I. MEDICAL RESIDENCY PROGRAM: TRAINING, EDUCATION, AND CULTURE**

The medical residency program is a required period of training that physicians undertake after graduation from medical school in order to complete their education and learn proficiency in a specialty.<sup>7</sup> A medical school graduate has a doctorate degree, but is not yet fully licensed to practice medicine until the residency program and board examinations are successfully completed.<sup>8</sup> After residents pass the board examination, they may practice on their own without supervision as fully licensed physicians.<sup>9</sup> Most residencies last between three to seven years, during which time physicians develop the professional skills of primary patient care.<sup>10</sup>

Medical residents represent a large and crucial segment of the practicing physicians in the United States. Currently, approximately 100,000 medical residents work in over 8,000 teaching hospitals nationwide.<sup>11</sup> The federal government subsidizes teaching hospitals by paying each training hospital approximately \$100,000 per resident annually.<sup>12</sup> Teaching hospitals then pay residents between \$26,000 to \$50,000 depending on specialty and experience.<sup>13</sup> Resident's salaries are only a fraction of that paid to fully licensed doctors who typically earn \$98,000 to \$150,000, depending on specialty.<sup>14</sup> The difference in

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<sup>7</sup> AM. MED. STUDENT ASS'N., A PRIMER ON: RESIDENT WORK HOURS (May, 2005), available at [http://www.amsa.org/rwh/RWHprimer\\_6thEdition.pdf](http://www.amsa.org/rwh/RWHprimer_6thEdition.pdf).

<sup>8</sup> *Id.*

<sup>9</sup> ACMGE FACT SHEET, *supra* note 4.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> Boodman, *supra* note 1, at H14.

<sup>13</sup> *Id.*

<sup>14</sup> Anthony Ciolli, *The Medical Residents Working Hours Debate: A Proposal for Private Decentralized Regulation for Graduate Medical Education*, 7 YALE J. HEALTH POL'Y L. & ETHICS 175, 188 (2007).

salaries between residents and licensed physicians coupled with the fact that medical residents work some of the highest numbers of hours in the professional world, result in an entrenched system of reliance, both for economic and labor reasons.<sup>15</sup>

Unregulated, medical residents in the United States regularly work from 95 to 136 hours out of the 168 hours in a week.<sup>16</sup> The average workweek for a resident before regulations were introduced was 105 hours, but with the introduction of several forms of regulation (federal, state and private) residents are spending twenty five percent less time in the hospital then they would have in the era before the work hour revolution.<sup>17</sup> The result is that a five-year surgical resident has suddenly become the equivalent of a three-year resident simply because of the reduction in work hours.<sup>18</sup> Therefore, the work hour regulations not only have complex economic ramifications, they also have a variety educational consequences.<sup>19</sup>

All teaching hospitals face the same challenge of providing enough supervision and oversight to protect the wellbeing of patients while simultaneously allowing medical residents enough freedom to learn from the actual practice of medicine.<sup>20</sup> Graduate medical education is constructed around the notion that the most essential part of a student's instruction occurs at the bedside and not in the lecture room.<sup>21</sup> Since much of the learning occurs at the bedside, medical residents must be physically present in the hospital for the entire timeline of the patient's stay, from presentation to diagnosis to treatment.<sup>22</sup> The reality of health care is that people get sick at all times of the day and to gain exposure to these diseases, medical residents must be at the hospitals for large amounts of time to hone their skills and gain as much exposure as possible in the educational environment of the teaching hospital.<sup>23</sup> Therefore, any reduction in the resident's amount of work hours means that the medical residents, as physicians in training, may miss an opportunity to learn a critical skills necessary

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<sup>15</sup> *Id.*

<sup>16</sup> A PRIMER ON: RESIDENT WORK HOURS, *supra* note 7.

<sup>17</sup> Horowitz, *supra* note 3, at 4.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> Anne Barnard, *Teaching Hospitals' Dilemma: Instruction v. Care*, BOSTON GLOBE, Aug. 10, 2001, at B1.

<sup>21</sup> Joseph H. King, *The Standard of Care for Residents and Other Medical School Graduates*, 55 AM. U. L. REV. 683, 698 (2006).

<sup>22</sup> Ciolli, *supra* note 14, at 178.

<sup>23</sup> *Id.*

for the effective practice of medicine simply because they are not physically present when the lesson presented itself.<sup>24</sup> This learning paradigm of direct hands on experience is especially important in the practice of medicine for, as one resident describes, the graduate medical experience is one purely based on prior experiences: "Medicine is about imprinting. You see something and you remember that patient. When confronted with a problem, a doctor looks back in his mind to find a reference point, and you'll remember patient X had similar symptoms and this is what happened. You learn by experience."<sup>25</sup>

Therefore, because the graduate medical education is so heavily dependent on learning through hands-on experience, the educational concerns about a reduction in work hours encompass much of the criticism on the newly proposed and enacted legislation.<sup>26</sup> Senior licensed physicians are concerned that the new generation of doctors are not going to receive sufficient training and practical experience necessary to competently practice medicine, and, therefore, will endanger the lives of patients not only during the training period of residency, but also further into the physicians careers.<sup>27</sup>

While medical residents may miss opportunities to gain exposure to diagnosis, treatments, or patient care, more importantly patient health may be jeopardized by the "passing" of patients that will occur when medical residents are forced to leave the hospital due to work hour restrictions.<sup>28</sup> Many physicians recognize a fiduciary relationship that binds the doctor to stay with the patient through treatment due to the presence of a therapeutic relationship between the treating doctor and the patient.<sup>29</sup> In addition to jeopardizing the fiduciary relationship between treating doctor and patient, the possibility of miscommunications and treatment failures increase as a result of doctors being forced to "pass" patients on to other doctors rather than seeing treatment through completion.<sup>30</sup> The new "tag team" approach to medicine concerns many physicians.<sup>31</sup> Prior to the

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<sup>24</sup> Mitchell Charap, *Reducing Resident Work Hours: Unproven Assumptions and Unforeseen Outcomes*, 140 ANNALS INTERNAL MED. 814, 814 (May, 2004).

<sup>25</sup> Horowitz, *supra* note 3, at 3.

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> King, *supra* note 21 at 720-724.

<sup>29</sup> *Id.*

<sup>30</sup> David A. Asch & Ruth M. Parker, *The Libby Zion Case: One Step Forward or Two Steps Backward?*, 318 NEW ENG. J. MED. 771, (1988).

<sup>31</sup> Horowitz, *supra* note 3, at 4.

regulations, one doctor was primarily responsible for whatever happened to each individual assigned patient.<sup>32</sup> The new regulations and the “passing” of patients has caused a diffusion of responsibility as patients are constantly handed off to someone else.<sup>33</sup>

Supervision and the culture of medicine are also important variables that must be examined when discussing the regulation of medical residents’ work hours. Physicians opposed to work hour regulation argue that supervision, not work hours, is what needs to be regulated to ensure patient safety during the necessary process of training future physicians in the practice of medicine.<sup>34</sup> Ideally, supervision would be central to the systematic approach to residency programs. However, medical residency programs have historically and currently continue to adopt a “sink or swim” mentality that has dictated how medical residents are trained.<sup>35</sup> Residents are left without adequate supervision under the theory that the stress of life and death decision-making is a significant part of the lesson in becoming a doctor.<sup>36</sup> The ability to “handle it” is considered a core value in medicine.<sup>37</sup> Medicine is a “Right Stuff” environment that prizes exceptionally hard work, toughness, intelligence, self-sufficiency, and a refusal to complain.<sup>38</sup> This culture of medical education has remained virtually unchanged since John Hopkins invented the residency program over one hundred years ago.<sup>39</sup> Many physicians adopt the notion that the residency program is in place to toughen up young doctors, just as their elders experienced when they passed through the same demanding program.<sup>40</sup> Part of this “trial by fire” mentality means that during the night hours, when licensed senior physicians are typically on-call from home, residents are forced to make instant life and death decisions without immediate supervision while they subordinate the biological need for sleep in order to treat patients.<sup>41</sup>

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<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> Boodman, *supra* note 1, at H18.

<sup>35</sup> Jennifer Whetsell, *Changing the Law, Changing the Culture: Rethinking the “Sleepy Resident” Problem*, 12 ANNALS HEALTH L. 23 (2003). (Noting that although Massachusetts hospitals have adopted stringent resident supervision policies, the Massachusetts Department of Public Health acknowledges that most, if not all, teaching hospitals have overly inadequate resident supervision.)

<sup>36</sup> *Id.* at 29.

<sup>37</sup> Boodman, *supra* note 1, at H18.

<sup>38</sup> *Id.*

<sup>39</sup> Horowitz, *supra* note 3, at 5.

<sup>40</sup> Whetsell, *supra* note 35, at 31.

<sup>41</sup> Ciolli, *supra* note 14, at 181-83.

This worrisome combination has brought about the work hour regulations. However, the proposed regulations focus primarily on the number of hours residents may work rather than the amount supervision residents receive.

The lack of supervision, the culture of medicine, and graduate medical education's reverence for tradition are intertwined with the medical residency work hour and liability issues.<sup>42</sup> The structure and realities of the medical education system must be understood before regulatory action is taken. Resident work is very different today than it was even twenty years ago.<sup>43</sup> Today, residents spend less time with patients and spend more time working with advanced technologies, managing complex drug treatments, and completing much more paperwork.<sup>44</sup> Thus, while the medical residents of previous generations were treating patients at the bedside on very little sleep, today's medical residents are required to work in more sophisticated environments, which includes operating complex machinery and managing highly technical drugs combinations. These changes in the practice of medicine makes the platitudes of "trial by fire" and "only the strong" a recipe for disaster. Residents "live in the cracks of a broken health care system" and while they undoubtedly allow the system to function with the present physician labor needs, they do so in a system with very few safety valves built in.<sup>45</sup> The realities of the medical residency program, when viewed concurrently with the cognitive, physiological, and psychological pressures placed on resident's by the system, highlight the clear need for change, though the consequences to those regulations must not be overlooked.

## II. COGNITIVE, PHYSIOLOGICAL, AND PSYCHOLOGICAL EFFECTS OF SLEEP DEPRIVATION ON MEDICAL RESIDENTS

The fundamental fact that has spurred medical resident's work hour regulation is the simple principle that sleep is a biological necessity for humans. Sleep is a biological requirement whether the individual is a trained physician or not. Sleep is not something that can be overcome with will power or determination even though medical

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<sup>42</sup> Boodman, *supra* note 1, at H14.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at H18.



residents often are placed in a position to try to challenge these biological constraints.<sup>46</sup>

The crucial issue concerning the work hour reform in the medical residency program is that long work hours are not only the time-honored tradition of medical residency training, they are a necessary reality for the health care system.<sup>47</sup> The inexpensive labor provided by medical residents at the nation's 8,000 teaching hospitals has become an important economic factor within the national health care system and is a consideration of any proposed reformation of that system. Recently however, the realization that the costs of the fatigued medical resident's errors may outweigh the economic benefits of the resident's exploitable cheap labor has come to light.<sup>48</sup> The biological constraints of sleep depravity may be the catalyst that will effectuate substantial changes within the entrenched graduate medical education system.

Sleep is a biological necessity to human beings.<sup>49</sup> Sleep and wakefulness are highly regulated states of brain activity governed by circadian rhythms.<sup>50</sup> Optimal neurobehavioral performance requires regular sleep.<sup>51</sup> Effects of sleep deprivation are seen in both short and long term sleep reduction.<sup>52</sup> Especially dangerous for the medical profession is that sleep deprivation has been shown to have cumulative effects such that performance on cognitive tests decrease as the sleep deprivation continues.<sup>53</sup> Effects of sleep deprivation occur when adults receive less than five hours of sleep a night.<sup>54</sup> Medical residents typically have shifts that last thirty straight hours and have workweeks that total hundred hours.<sup>55</sup> Therefore, most residents function in a state

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<sup>46</sup> Sigrid Veasey, et al., *Sleep Loss and Fatigue in Residency Training: A Reappraisal*, 288 J. AM. MED. ASS'N 1116, 1117 (Sept. 4, 2002).

<sup>47</sup> A PRIMER ON: RESIDENT WORK HOURS, *supra* note 7

<sup>48</sup> Veasey, *supra* note 46, at 1116.

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *Id.*

<sup>53</sup> C. Alexander et al, *The Effects of Chronic Sleep Reduction on the Performance of Cognitive tasks Sensitive to Sleep Deprivation*, 9 APPLIED COGNITIVE PSYCHOL. 21 (1994).

<sup>54</sup> Veasey, *supra* note 46, at 1116.

<sup>55</sup> Boodman, *supra* note 1, at H16. *See also* AM. MED. STUDENT ASS'N, *Supra* note 7 (Noting that 37% first year OB/GYN residents sleep less than one hour per night while on call). *See also* Petition from Public Citizen to OSHA, Requesting that limits be placed on hours worked by medical residents (Apr. 30, 2001) (on file with Public Citizen), available at <http://www.citizen.org/publications/release.cfm?ID=6771>

of acute or chronic sleep deprivation that lasts the span of their training.<sup>56</sup>

Studies have shown that staying awake for a period over twenty-four hours impairs cognitive psychomotor performance to the same degree as having a 0.1% blood alcohol level.<sup>57</sup> Over thirty years of studies have proven that sleep deprivation decreases performance on memory, concentration, mathematical skills, visual attention, and planning skills.<sup>58</sup> This is not the condition in which a patient would want the person to whom their life is entrusted to be functioning. Eighty-six percent of respondents in a recent poll by the American Medical Student Association said that they feel anxious about their safety if their doctor had been working for twenty-four straight hours and seventy percent of respondents said that if they were aware of their physician's condition, in terms of sleep deprivation, they would request a new physician.<sup>59</sup>

Lack of sleep also affects residents psychologically, as they experience higher rates of depression, cynicism, and decreased humanism.<sup>60</sup> Therefore, patient care is not only jeopardized in terms of cognitive and motor skill failures, but also by the effect of sleep deprivation on mood and affect.<sup>61</sup> The psychological symptoms of the sleep deprivation are the most common reasons cited for medical residents' resignation.<sup>62</sup> Anecdotes of sleep-deprived doctors expose the lack of bedside manner and dehumanization that occurs from the grinding schedule of the medical residency program. One resident was quoted saying, "At night, especially, patients and their families become the enemy, devouring precious time that could be spent sleeping. You actually start wishing people would die so you could get some sleep."<sup>63</sup> Another medical resident, in explaining why she resigned, stated "... [T]he reason I quit was that I got to the point where I was tempted to

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(Noting that surgical residents typically get only four uninterrupted hours of sleep a night).

<sup>56</sup> *Id.* at H17.

<sup>57</sup> Drew Dawson & Kathryn Reid, *Fatigue, Alcohol and Performance Impairment*, 388 NATURE 235 (1997).

<sup>58</sup> A PRIMER ON: RESIDENT WORK HOURS *supra* note 7, at 7.

<sup>59</sup> *Id.* at 8.

<sup>60</sup> Wilkey, *supra* note 5, at 331.

<sup>61</sup> *Id.*

<sup>62</sup> Collier, *Stress in Medical Residency: Status Quo After a Decade of Reform?*, 136 ANNALS INTERNAL MED. 384, 385 (March 2002).

<sup>63</sup> Boodman, *supra* note 1, at H18 (quoting Michael Greger, Boston area medical resident).

take dangerous shortcuts, like letting myself drift off for another twenty or thirty minutes and not getting up to see a patient. If you do that, a patient could die.... It's insane how sleep deprived you are."<sup>64</sup>

The medical industry is not the only industry to address the psychological and physical effects of sleep deprivation. Many other industries have realized the impairments and dangers that result from sleep deprivation and, as a result, have been regulated legislatively.<sup>65</sup> The federal government has long recognized that work hours in the transportation industry must be regulated.<sup>66</sup> Work hour limits and rest period requirements exist for highway, aviation, railroad, and maritime industries.<sup>67</sup> The government has implemented these regulations on the basis of "well founded" scientific knowledge about the relationship of fatigue, performance, and safety.<sup>68</sup>

While sleep deprivation and human error seem to be well accepted in other industries, the argument has faced challenges in the medical industries. Part of this resistance is based on the culture of medicine. As discussed above, many senior physicians believe that functioning under conditions of sleep deprivation is a necessary skill or tool for a physician.<sup>69</sup> Physicians opposed to work hour regulation typically point out that no study has ever conclusively proven that medical errors increase in relation to the amount of sleep that a resident has had prior to the patient's treatment.<sup>70</sup> Richard Reeling, a Harvard trained surgeon who represents the American College of Surgeons at the American Medical Association exemplifies this belief by stating that:

There have never been any good studies that show damage or injury to patients as a result of sleep loss by

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<sup>64</sup> *Id.* (quoting Risa Moriarity, Johns Hopkins medical resident).

<sup>65</sup> Petition from Public Citizen to OSHA, Requesting that limits be placed on hours worked by medical residents (Apr. 30, 2001) (on file with Public Citizen), *available at* <http://www.citizen.org/publications/release.cfm?ID=6771>.

<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> Whetsell, *supra* note 35, at 33.

<sup>70</sup> David M. Gaba & Steven K. Howard, *Fatigue Among Clinicians and the Safety of Patients*, 347 NEW ENG. J. MED. 1249 (Oct. 17, 2002) (Noting that it has been difficult to prove through empirical study that sleep deprivation impairs clinical performance). *See also* Charap, *Reducing Work Hours: Unproven Assumptions and Unforeseen Outcomes*, 140 ANNALS INTERNAL MED. 814 (May, 2004) ("No sound evidence proves that long work hours are important to the reduction in actual medical errors. In fact I contend the opposite. Patients would suffer from work hour reductions.").

doctors. You can have just as much a chance of disaster occurring after having a full night's sleep. Surgeons are built differently. That's part of the selection process, [fatigue] is dismissed as whining.<sup>71</sup>

While the empirical studies have not yet shown a conclusive link between sleep deprivation and medical errors in residents, as one NASA study put it, "[t]here is just no doubt that humans get tired."<sup>72</sup> No amount of training or exposure to functioning under conditions of sleep deprivation will overcome the biological necessity of sleep, medical resident or not.<sup>73</sup>

One study has shown that residents are cognizant of the correlation between sleep deprivation and medical errors even if the empirical evidence is lacking.<sup>74</sup> This study reported that eighty-one percent of residents admit that sleep has negatively affected their patient care in some way.<sup>75</sup> Another study pointed out that when medical errors were reported, forty-one percent of the doctors blamed exhaustion as the primary impetus for the error.<sup>76</sup> So, while correlative studies may be lacking, anecdotal evidence exists that sleep deprivation is related to medical error. Nevertheless, empirical evidence is needed. Organizations such as the Institute of Medicine (IOM) have stated that they are only willing to rely on "rigorous scientific evidence" in their determination of the work hour regulatory issue.<sup>77</sup> Other industries that have work hour regulations, most notably the transportation industry, have years of empirical research to justify their regulatory actions; evidence which is simply not yet available in the medical industry.<sup>78</sup>

Besides the fact that large-scale research addressing the prevalence and causes of medical error is relatively new and not nearly close to being systematic or complete,<sup>79</sup> the lack of empirical evidence that links lack of sleep to medical errors is largely due to the meager reporting of medical errors and the complex nature of what actually

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<sup>71</sup> Boodman, *supra* note 1, at H18.

<sup>72</sup> *Id.*

<sup>73</sup> *Id.*

<sup>74</sup> Horowitz, *supra* note 3, at 3.

<sup>75</sup> *Id.*

<sup>76</sup> A.W. Wu et al., *Do House Officers Learn From Their Mistakes?*, 265 J. AM. MED. ASS'N 2089, 2091 (1991).

<sup>77</sup> Boodman, *supra* note 1, at H12, H14.

<sup>78</sup> *Id.* at H14. *See also* Petition from Public Citizen to OSHA, *supra* note 65 (Discussing the work hour regulation in other industries).

<sup>79</sup> Veasey, *supra* note 46, at 1122.

qualifies as a medical error, not to mention the years of staunch defense of the residency training system by the medical establishment.<sup>80</sup> Only about five percent of medical errors are ever reported; thus, ninety-five percent of medical errors are never causally investigated.<sup>81</sup> Of the reported five percent of medical errors, investigators rarely identify the primary cause of the medical error.<sup>82</sup> Many physicians cite the complexity of medical errors as the primary reason why work hour restrictions lag in medicine compared to other industries.<sup>83</sup> A less than optimal surgical result is far harder to quantify than a trucking accident by a sleep deprived driver.<sup>84</sup> Just because errors are rarely admitted, reported, or investigated does not mean that they are not pervasive.<sup>85</sup> The IOM estimates that as many as 98,000 deaths occur annually due to medical errors.<sup>86</sup> When this figure is coupled with the anecdotal evidence of sleep deprivation and exhaustion being causally related to physicians' errors and the empirical evidence of the cognitive depletion that occurs from a lack of sleep in other industries, the risks to patients being treated by sleep-deprived, ill-supervised, physicians-in-training becomes evident.

Sleep deprivation and medical error correlative studies are further frustrated by the fact that sleep deprivation does not always result in mistakes.<sup>87</sup> Just as a drunk driver does not always cause an accident, a sleep-deprived resident may not always make a material medical error. But is this really the state of affairs that the United States health care system should adopt and entrust human lives?<sup>88</sup> As noted above, residents function in the "cracks of a broken health care system" and that is why considering the system as a whole is necessary when addressing the work hour and liability issue for medical residents.

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<sup>80</sup> *Id.* at 1117.

<sup>81</sup> Sandra Boodman, *Waking Up to the Problem of Fatigue Among Medical Interns*, L.A. TIMES, Apr. 16, 2001, at S1.

<sup>82</sup> *Id.*

<sup>83</sup> Whetsell, *supra* note 35, at 42-44.

<sup>84</sup> *Id.*

<sup>85</sup> See Tracey B. Ehlers, *The Patient and Physician Safety and Protection Act: Crucial Federal Legislation to Improve the Lives of Residents and Patients*, 4 CONN. PUB. INT. L. J. 1 (2004) (Discussing the general issues surrounding medical errors and work hour regulations).

<sup>86</sup> INST. OF MED., TO ERR IS HUMAN: BUILDING A SAFER HEALTH CARE SYSTEM 1-15 (Linda T. Kohn, Janet M. Corrigan & Molla S. Donaldson eds., National Acad. Press 2000).

<sup>87</sup> Boodman, *supra* note 1, at H18.

<sup>88</sup> *Id.*

### III. REGULATORY SCHEMES: FEDERAL, STATE, AND PRIVATE

Work hour regulation of medical residents has become a national issue.<sup>89</sup> Many opinions exist regarding the correct approach to the current situation, but most can be divided among two camps: 1) those who support work hour regulation; and 2) those who oppose work hour regulation and believe that supervision reform is the better approach to reduce resident from making medical errors.<sup>90</sup> Federal, state, and private regulation have all proposed or adopted rules that center around restricting the number of work hours medical residents may work rather than increasing the amount of supervision they receive.<sup>91</sup>

In 2003, Representative Conyers (D-MI) and Senator Corzine (D-NJ) introduced the “Patient and Physician Safety and Protection Act” (PPSPA).<sup>92</sup> The PPSPA has yet to be enacted. At the state level, New York was the first state to pass a law regulating the work hours of residents with section 405 of the New York Health Code in 1989.<sup>93</sup> Massachusetts, Delaware, New Jersey, Pennsylvania, and California have considered state regulation limiting medical residents’ work hours, but have yet to formally enact their own state laws on the issue.<sup>94</sup> In the private sector, the Accreditation Council for Graduate Medical Education (ACGME) has led the way in the regulation of medical residents’ work hours by mandating work hour limitations as a requirement for accreditation as a teaching hospital in the United

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<sup>89</sup> As illustrated by coverage extensive coverage in the national news media, (New York Times, L.A. Times, Boston Globe, Washington Post, New York Magazine)

<sup>90</sup> See Charap, *supra* note 24 (Discussing the failures and misconceptions of work hour regulation) and Marc Siegel, Editorial, *Commentary: Training Rxzzzzz*, L.A. TIMES, July 1, 2002, at B11 (Noting how supervision remains to be the greatest problem in graduate medical education). *But see* Petition from Public Citizen to OSHA, *supra* note 65 (Requesting reform of the medical residency program through work hour regulation rather than increased supervision) and ACCREDITATION COUNCIL OF GRADUATE MED. EDUC., ACGME DUTY HOUR FACT SHEET, *available at* [http://www.acgme.org/acWebsite/newsRoom/newsRm\\_dutyHours.asp](http://www.acgme.org/acWebsite/newsRoom/newsRm_dutyHours.asp) (last visited Jan. 10, 2008) (Describing the policy behind the choice to regulate medical resident’s work hours).

<sup>91</sup> A PRIMER ON: RESIDENT WORK HOURS., *supra* note 7, at 3.

<sup>92</sup> Patient and Physician Safety Act of 2003, S.952, 108th Cong. (2003); Patient and Physician Safety Act of 2005, H.R. 1228, 109th Cong. (2005).

<sup>93</sup> A PRIMER ON: RESIDENT WORK HOURS *supra* note 7, at 5.

<sup>94</sup> *Id.* at 3.

States.<sup>95</sup> While all forms of regulation are generally similar in their focus on limiting the medical resident work hours, several differences exist among the regulatory schemes in terms of the degree of flexibility, enforceability, and whistleblower protection.<sup>96</sup>

### A. New York - State Approach:

In 1989, New York became the first state to regulate the work hours of medical residents.<sup>97</sup> Section 405 of the New York Health Code mandates that medical residents cannot work any more than eighty hours per week, as averaged over a four week period.<sup>98</sup> The New York regulation also prohibits all on-call shifts of more than twenty-four consecutive hours and provides certain specific limitations on certain specialists, such as a maximum of twelve consecutive hours per shift for emergency room residents.<sup>99</sup>

The New York regulations were the first of their kind and rose out of the public outcry that resulted from the death of eighteen-year-old Libby Zion, daughter of a prominent New York Times journalist.<sup>100</sup> The parents of Libby Zion sued New York Hospital on a malpractice claim when they learned of the inexperience and state of sleep deprivation of the medical resident overseeing their daughter's care.<sup>101</sup> The trial was highly publicized and resulted in a split verdict.<sup>102</sup> The jury believed that the doctors had made mistakes, but also believed that the allegations of cocaine use contributed to the cause of death.<sup>103</sup> The grand jury found neither the hospital nor the physicians at fault, but it did find the system of graduate medical education to be responsible for the death of Libby Zion.<sup>104</sup> The jury cited overwork, sleep deprivation, and lack of supervision of the residents as serious potential dangers to patients.<sup>105</sup>

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<sup>95</sup> *Id.* See also ACGME DUTY HOUR FACT SHEET, *supra* note 4.

<sup>96</sup> See Wilkey, *supra* note 5 (Comparing the different regulatory schemes).

<sup>97</sup> A PRIMER ON: RESIDENT WORK HOURS *supra* note 7, at 5.

<sup>98</sup> See 10 N.Y. COMP. CODES R. & REGS., tit. 10, 405 (2001).

<sup>99</sup> *Id.*

<sup>100</sup> Horowitz, *supra* note 3, at 5.

<sup>101</sup> Barron H. Lerner, *A Case That Shook Medicine: How One Man's Rage Over His Daughter's Death Sped Reform of Doctor Training*, WASH. POST, Nov. 28, 2006, at HE01.

<sup>102</sup> Horowitz, *supra* note 3, at 4.

<sup>103</sup> *Id.*

<sup>104</sup> A PRIMER ON: RESIDENT WORK HOURS *supra* note 7, at 4.

<sup>105</sup> *Id.*

From this publicity, the New York Health Committee appointed a blue-ribbon committee headed by Bertrand M. Bell to evaluate the practices and policies of the states graduate medical training and residency program.<sup>106</sup> On the recommendations from the Bell Committee, New York adopted Section 405 of the Health Code in 1989, despite the fact that compliance and enforcement of the regulation was virtually invisible.<sup>107</sup> Lack of enforcement is cited as the major failure of the New York approach of the medical resident regulation.<sup>108</sup> In 1998, the New York State Department of Health conducted an unannounced investigation of compliance with the Section 405 regulations and found that thirty-seven percent of residents were working more than eighty-five hours per week, twenty percent of residents exceeded ninety-five hours per week, and thirty-eight percent of residents worked in excess of twenty-four consecutive hours.<sup>109</sup> In 2000, New York increased the fines from \$2,000 for a violation to \$6,000 for the first violation, \$25,000 for the second violation, and \$50,000 for a third violation.<sup>110</sup> While the increasing of the fines may have made a statement that New York was serious about the enforcement of work hour limitations for medical residents, the reforms still have not been institutionalized due to a “fruitless self-monitoring” and “refusal of the medical profession to adapt to changes.”<sup>111</sup>

Despite the leadership role New York took in the regulation of medical residents’ work hours, it seems New York has failed in its approach in reforming graduate medical education. As one New York doctor notes, “the regulations attempted to change the culture of medical residents [but] failed to achieve that goal.”<sup>112</sup>

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<sup>106</sup> Lerner, *supra* note 104, at 3.

<sup>107</sup> A PRIMER ON: RESIDENT WORK HOURS., *supra* note 7, at 5.

<sup>108</sup> See Wilkey, *supra* note 5, at 337.

<sup>109</sup> Randy Kennedy, *Resident’s Hours Termed Excessive in Hospital Study*, N.Y. TIMES, May 19, 1998, at A1.

<sup>110</sup> See PRESS RELEASE, N.Y. DEP’T OF HEALTH, *State Health Department Cites 54 Teaching Hospitals for Resident Work Hour Violations* (June 26, 2002), available at [http://www.health.state.ny.us/press/releases/2002/resident\\_working\\_hours.htm](http://www.health.state.ny.us/press/releases/2002/resident_working_hours.htm) (last visited Jan. 12, 2008).

<sup>111</sup> Ester B. Fain, *Flouting Law: Hospitals Overwork Novice Doctors*, N.Y. TIMES, Dec. 14, 1997, at A1.

<sup>112</sup> Dori Page Antonetti, *A Dose of Their Own Medicine: Why the Federal Government Must Ensure Healthy Working Conditions for Medical Residents and How Reform Should Be Accomplished*, 51 CATH. U. L. REV. 875 (2002).



## B. Private Approach: ACGME

The Accreditation Council of Graduate Medical Education (ACGME) is an independent, non-profit organization that was formed in 1981 after a consensus of the medical community agreed that the graduate medical education program needed to be internally regulated and monitored in order to uphold the highest standard of care for the nation's future doctors.<sup>113</sup> The ACGME is granted the authority to approve and evaluate the accreditation of all post-graduate teaching hospitals within the United States.

As of July 2003, the ACGME began to require that all accredited medical schools implement a policy that limited work hours of medical residents.<sup>114</sup> The ACGME duty hour requirements are similar to the approach taken New York in that medical residents' hours are limited to eighty hours per week averaged over a four-week period and all continuous work must be no longer than twenty-four consecutive hours.<sup>115</sup> Residents are also required to have one day in seven free from all educational and clinical responsibilities, averaged over a four-week period.<sup>116</sup> The ACGME does have some built in flexibility in the duty hour limitation for a review committee is granted the authority to permit exceptions up to ten percent (not exceeding 88 hours) for an individual program based on a sound educational rationale.<sup>117</sup> Thus, a medical resident can work up to eighty-eight hours as long as the additional hours have some educational explanation. While the carrot and stick utilized by the New York approach involved the use of state funding and fines, the ACGME punishes violations of work hour limitations with revocation of accreditation, which result in loss of federal funding as accreditation is a requirement for the federal subsidies paid to teaching hospitals.<sup>118</sup> Similar complaints of lack of proper enforcement exist for the ACGME approach as exist for the New York approach.<sup>119</sup>

Although the ACGME was developed out of the New York approach, it appears that the ACGME did not learn from any of the

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<sup>113</sup> See ACCREDITATION COUNCIL OF GRADUATE MED. EDUC, <http://www.acgme.org/acWebsite/home/home.asp> (last visited Jan. 8, 2008).

<sup>114</sup> A PRIMER ON: RESIDENT WORK HOURS, *supra* note 7.

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

<sup>119</sup> Wilkey, *supra* note 5, at 352.

failures of the New York approach.<sup>120</sup> To date, the ACGME has not revoked the accreditation of any teaching hospital despite statistical and anecdotal evidence which clearly suggest that full compliance with the regulations is exceedingly rare.<sup>121</sup>

The lack of enforcement of the work hour regulations may be due to the fact that realistically, teaching hospitals are unable to meet the requirements under the regulations regardless of their best efforts and good intentions. Several factors make compliance difficult for teaching hospitals. The economic dependence on residents is a major hurdle for hospitals that seek to comply with the regulations.<sup>122</sup> Residents are a cheap form of labor and it is estimated that hospitals would incur between \$1.4 billion to \$1.8 billion per year nationwide to replace the hours lost to limitations of residents' work hours.<sup>123</sup> Regardless of the financial incentives to ignore the ACGME regulations, very few incentives exist for hospitals or residents to self-report violations.<sup>124</sup> The ACGME does not provide whistleblower protection for residents who come forward with claims of violations.<sup>125</sup> Medical residents are a captive audience that are afraid to complain about working conditions because their own success depends on the goodwill of their supervisors and the culture of medicine has been resistant to accept admissions of "weakness" or exhaustion from residents.<sup>126</sup> Not only do residents not want to be vilified by their superiors, they also do not want to continue their training at a hospital that has lost its accreditation.<sup>127</sup>

Also, residency is a transitory training period in which the culture of medicine ingrains into the residents a mentality of "just survive."<sup>128</sup> Once you a licensed physician, the troubles of the residency program can be easily forgotten for the long hours and challenges are no longer a daily reality. The problems of the residency program are therefore passed on from year to year, training class to training class, with no group of trainees incentivized to report violations and face the likely consequences of voicing their

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<sup>120</sup> Horowitz, *supra* note 3, at 5.

<sup>121</sup> Wilkey, *supra* note 5, at 341-44.

<sup>122</sup> King, *supra* note 21, at 698.

<sup>123</sup> *Id.*

<sup>124</sup> Wilkey, *supra* note 5, at 346.

<sup>125</sup> *Id.*

<sup>126</sup> Boodman, *supra* note 1, at H16.

<sup>127</sup> Wilkey, *supra* note 5, at 346.

<sup>128</sup> Boodman, *supra* note 1 H16.

complaints.<sup>129</sup> For this reason, under the current approach, it is unlikely that the ACGME's approach will succeed in addressing the work hour reformation issue.

Not only has the ACGME regulation failed in terms of its dependency on medical residents to self-report violations, the board that oversees the ACGME also faces an inherent conflict of interest.<sup>130</sup> The ACGME board is dominated by trade associations for hospitals, doctors, and medical schools, all of whom benefit from the cheap labor provided by the medical residents.<sup>131</sup> Teaching hospitals that are already financially unstable are being asked to report themselves to a board made up of themselves to enforce regulations that will add billions of dollars to their own annual labor costs.<sup>132</sup> The ACGME enforcement is fairly unrealistic and these factors go into explaining why the regulations are so difficult to police.<sup>133</sup>

Some in the medical community advocate for the ACGME regulation because they believe that regulations should be internal rather than imposed by the government.<sup>134</sup> The medical system is multifaceted and entrenched. Any regulatory scheme that attempts to reform the United State's medical system should have full knowledge of the intricacies of the system and be able to incorporate flexibility to ensure continuity of care and preserve the high educational standards needed in today's medical training.<sup>135</sup> The complex relationship between work hours, education, and patient safety must be central when implementing work hour reforms and the government may not be in the best position to balance those interests.<sup>136</sup>

Those backing the ACGME regulatory approach are quick to point out that the ACGME regulations are not a total failure. Since the implementation of the regulations in July of 2003, several residency programs have successfully reformed their programs to comply with the standards of the ACGME.<sup>137</sup> One example is the Boston Medical

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<sup>129</sup> *Id.*

<sup>130</sup> Editorial, *Sleep-Deprived Doctors*, N.Y. TIMES, June 14, 2002.

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> Wilkey, *supra* note 5, at 346.

<sup>134</sup> James D. Stone, *Putting the Sleepy Resident Issue to Bed: Federal Legislation is Not the Answer to Excessive Medical Resident Working Hours*, 40 SUFFOLK U. L. REV. 745 (2007).

<sup>135</sup> *Id.* at 757.

<sup>136</sup> *Id.* at 762.

<sup>137</sup> Ehlers, *supra* note 85, at 13-15.

Center, which has made several changes to the daily routines for all hospital staff in order to function more efficiently and comport with the regulations set forth by the ACGME.<sup>138</sup> Boston Medical Center acknowledges that the changes were possible because they “embraced the culture of change” and this mentality is what seems to be missing from many of the nation’s graduate medical education programs.<sup>139</sup> So, while the regulations are possible, it may be unrealistic to expect the medical community, as it stands today, to immediately begin to enforce the regulations. As one doctor explained the lack of compliance, “you either have a lot of bad actors or a system that is unmanageable.”<sup>140</sup>

### C. Federal – Patient and Physician Safety and Protection Act

Currently, all graduate medical programs are subject to the ACGME regulations and several states have their own legislation to regulate graduate medical education within their teaching hospitals.<sup>141</sup> As discussed above, the effectiveness of these regulatory schemes have struggled and for this reason in 2003 the “Patient and Physician Safety and Protection Act” (PPSPA) was introduced in Congress.<sup>142</sup> The PPSPA failed to pass in 2003 and was reintroduced in 2005 only to fail to yet again.<sup>143</sup> However, Congress and the medical community are currently debating on how to solve the medical resident work hour issue.<sup>144</sup>

The PPSPA essentially acknowledges the failures of the various state ACGME approaches.<sup>145</sup> The American Medical Student Association, Public Citizen, Center for Individual Rights, and other public advocacy groups have advocated for federal legislation for medical resident work hour reform.<sup>146</sup> While PPSPA may be a reaction to the failures of the ACGME and state regulatory approaches, the

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<sup>138</sup> *Id.*

<sup>139</sup> *Id.*

<sup>140</sup> Horowitz, *supra* note 3, at 6.

<sup>141</sup> New York, Massachusetts, Delaware, New Jersey, Pennsylvania, and California have state regulations of medical residents’ work hours.

<sup>142</sup> Patient and Physician Safety Act of 2003, S.952, 108th Cong. (2003). Available at <http://www.govtrack.us/congress/bill.xpd?bill=s109-1297> (last visited Jan. 14, 2008).

<sup>143</sup> Patient and Physician Safety Act of 2005, H.R. 1228, 109th Cong. (2005). Available at <http://www.govtrack.us/congress/bill.xpd?bill=h109-1228> (last visited Jan. 14, 2008).

<sup>144</sup> A PRIMER ON: RESIDENT WORK HOURS *supra* note 7, at 3.

<sup>145</sup> *Id.* at 12.

<sup>146</sup> *Id.*

legislative requirements virtually mirror those approaches. The PPSPA proposes to limit medical residents to eighty hours per week and twenty-four per shift.<sup>147</sup> Residents are also required to have at least ten hours between shifts and at least one full day off out of every seven days off, as well as one full weekend off every month.<sup>148</sup> The major difference between the approach taken by the PPSPA and that taken by the ACGME and the states is that the PPSPA has whistleblower protection and imposes fines on hospitals that violate the proposed regulations.<sup>149</sup>

While the PPSPA may have a slightly different approach to resident work hour regulation, the legislation faces the same criticism that states and the ACGME approach face from those in the medical community who are adverse to the limitation of work hours as the method to reform the graduate medical residency program. Those in the medical community who advocate supervision rather than work hour limitations are still unsatisfied with the proposed federal regulatory approach.<sup>150</sup>

#### IV. MEDICAL RESIDENTS' STANDARD OF LIABILITY

An often-ignored issue within the commentary of the medical resident work hour issue is the lack of consensus as to what the standard of liability should be for medical residents.<sup>151</sup> The legal system has yet to find a way to hold medical residents accountable for errors made when they are trainees forced to work in an environment of sleep deprivation.<sup>152</sup> Enacting legislation before clearly establishing the applicable legal standard for medical residents invites a state of affairs where medical residents are vulnerable to paying the price for unrealistic and possibly rushed reforms of the graduate medical program. Although some in the medical community are still unwilling

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<sup>147</sup> *Id.*

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

<sup>150</sup> Marc Siegel, Editorial, *Commentary: Training Rxzzzzz*, L.A. TIMES, July 1, 2002, at B11. See also Boodman, *supra* note 1, at H14 (Noting the Bertrand Bell, director of the commission that created the New York Health Code Section 405 that implemented the first regulation of resident work hours, believed that lack supervision by senior physicians is the major problem with the graduate medical program in the United States).

<sup>151</sup> Allen Kachalia, *Professional Liability Issues in Graduate Medical Education*, 292 JAMA 1051, 1052 (Sept. 2004).

<sup>152</sup> Boodman, *supra* note 1, at H14.

to admit to the effects of sleep deprivation, the enactment of regulations makes a clear statement that medical residents are in fact making errors due to the conditions under which they are forced to work.

Medical residents' errors are subject to medical malpractice liability. Regulation draws attention to the flaws in the graduate medical program in the United States. The medical community is not fully willing to accept or enforce these regulations, yet the residents stand, basically voiceless, to face the liability that stems from the regulatory action. While less than five percent of medical errors are reported, the nation has now been alerted to the current state of sleep deprivation, lack of supervision, and poor compliance with regulatory schemes. With this knowledge, lawyers and their injured clients are likely to pursue more claims against medical residents.

A medical resident's error during a shift that violates the ACGME, state regulation, or federal regulation (if enacted) may trigger a claim against the resident, the senior supervising physicians, or the teaching hospital itself for malpractice.<sup>153</sup> Some attorneys have even argued for a *per se* rule of liability for the hospital under a theory of vicarious liability when a patient is injured as a result of negligence of a resident, if the hospital failed to meet the work hour and supervision requirements of the applicable regulation.<sup>154</sup> These attorneys assert that any evidence of a violation of a work hour regulation should be submitted to the jury as evidence of negligence.<sup>155</sup>

While the work environment of ill-supervised, learning physicians who are under chronic states of sleep deprivation does seem to qualify as an unreasonable standard of care, the reality is that the system may not be able to "fix" or reform itself immediately as the current regulations require. Fairness then becomes a relevant issue. Is it fair to expose the residents, their supervising senior physicians and hospitals to liability if the system itself is incapable of immediate reform? As noted with the failure of compliance, "you either have a lot of bad actors or a system that is unmanageable."<sup>156</sup> If the system is unmanageable it would be inequitable to impose liability.

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<sup>153</sup> Kachalia, *supra* note 131, at 1055.

<sup>154</sup> Whetshell, *supra* note 35, at 54-56.

<sup>155</sup> *Id.*

<sup>156</sup> Horowitz, *supra* note 3, at 6.

## A. Current Standards of Liability

Medical malpractice is a way to protect patients by setting a standard of care and deterring substandard care by providing compensation for victims.<sup>157</sup> For plaintiffs to succeed on a medical malpractice claim, they must prove that the physician breached a duty of care by providing care that falls below the standard of care that would have been provided by a reasonable physician in a similar circumstance.<sup>158</sup> The issue comes down to the following question: To what standard of care should medical residents be held when they make errors?<sup>159</sup> After all, residents are mere trainees who provide patient care as part of an educational mission and should not be viewed as having a primary service role at teaching hospitals.<sup>160</sup> This view becomes hard to sustain due to the graduate medical program's engrained culture of "sink or swim" that results in residents being directly responsible for substantial amounts of unsupervised patient care within our nation's hospitals.<sup>161</sup> Courts are divided on what standard to apply to residents as a result of the amount of care that residents provide and the scarcity of actual case law on this issue.<sup>162</sup> One of the few safe generalizations that can be made about medical residents in this light, is that the courts are not willing to give residents a free pass to escape liability. While they are not fully licensed, they do have the authority to treat patients and must face the responsibilities that come along with assuming the duty of care for a patient.<sup>163</sup>

Courts have adopted various approaches to the standard of care required of medical residents. Some jurisdictions hold that medical residents must conform to a standard of care expected of a general practitioner.<sup>164</sup> For example, under this standard, a medical resident reading an EKG would not be expected to interpret it as a cardiologist,

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<sup>157</sup> King, *supra* note 21, at 689.

<sup>158</sup> Kachalia, *supra* note 131, at 1052.

<sup>159</sup> *Id.*

<sup>160</sup> Barnard, *supra* note 20, at B2.

<sup>161</sup> Boodman, *supra* note 1, at H16.

<sup>162</sup> King, *supra* note 21, at 703.

<sup>163</sup> *Id.* at 704. *See also* Phelps v. Physicians Ins. Co. of Wis., 698 N.W.2d 643, 653 (Wis. 2005) (stating that a non-fully licensed resident does not enjoy immunity or automatically escape liability).

<sup>164</sup> Kachalia, *supra* note 131, at 1052. *See generally* McBride v. United States, 462 F.2d 72 (9th Cir. 1972), St. Germain v. Pfiefer, 637 N.E.2d 848 (Mass. 1994), Jenkins v. Clark, 454 N.E.2d 541 (Ohio Ct. App. 1982), Baccari v. Donat 741 A.2d 262 (R.I. 1999).

but interpret it as a reasonable general practitioner.<sup>165</sup> Other jurisdictions have held medical residents to the standard of a capable medical school graduate because it would be unreasonable to expect a resident to have the same level of skill that is possessed by a physician in the general practice of his profession.<sup>166</sup> Courts that adopt this standard of care apply a sliding scale to the standard of care that should be applied to the specific resident based on their experience and type of residency program in which they are practicing.<sup>167</sup> In other jurisdictions, courts take notice of whether the medical resident is training as a specialist or not.<sup>168</sup> Courts in Pennsylvania have adopted this intermediate standard of care and hold that medical residents training as specialists are held to a standard higher than the average general practitioner, but lower than that of an average fully licensed specialist.<sup>169</sup>

Supervising physicians also face liability for the errors made by medical residents.<sup>170</sup> Courts have held supervising physicians liable under theories of vicarious liability when supervising physicians are present and fail to sufficiently supervise.<sup>171</sup> Under direct liability, courts view supervision as an inherent part of the job duties of senior physicians at teaching hospitals; therefore, claims of negligence can be brought directly to the supervising physician rather than imputed through a theory of vicarious liability.<sup>172</sup> Some courts have even held supervising physicians liable when the physicians are merely on-call and not physically present at the hospitals.<sup>173</sup>

Liability for the supervising physician is dependant on the presence of a relationship between the patient and the supervising physician.<sup>174</sup> A relationship hinges on the existence of acceptance of responsibility for the patient through explicit agreements or implicit indication, provisions of consultations and recommendations regarding patient care, including an on-call agreement between the supervising physician and the hospital that allocates supervisory responsibility to

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<sup>165</sup> Kachalia, *supra* note 131, at 1052.

<sup>166</sup> See *Rush v. Akron Gen. Hosp.* 171 N.E.2d 378 (Ohio Ct. App. 1957).

<sup>167</sup> King, *supra* note 21, at 710.

<sup>168</sup> Kachalia, *supra* note 131, at 1052. See also *Jistarri v. Nappi*, 549 A.2d 210 (Pa. 1988).

<sup>169</sup> *Id.*

<sup>170</sup> *Id.* at 1053.

<sup>171</sup> *Id.*

<sup>172</sup> *Id.* See also *Cole v. Tennessee*, 1998 Tenn App Lexis 485 (Tenn Ct. App. 1998).

<sup>173</sup> *Id.* at 1054. See also *Lownsbury v. Van Buren*, 762 N.E.2d 354 (Ohio 2001).

<sup>174</sup> *Id.*



the supervising physicians.<sup>175</sup> Once the relationship has been established, liability depends on whether the supervising physician provided adequate supervision under the appropriate standard of care.<sup>176</sup>

Hospitals and sponsoring institutions also lack immunity from liability from medical resident's errors. Teaching hospitals have a legal duty to provide services and supervise care.<sup>177</sup> As a result of the duty to provide services and care to patients, teaching hospitals are held directly liable for any breaches of this duty.<sup>178</sup> Therefore, all participating parties in the medical community face liability for errors committed by residents. Nonetheless, doctors, medical residents and hospitals are left not knowing who will be liable and to what standard that person or institution will be held.

### **B. Holding Hospitals Tortuously Liable For Medical Residents' Accidents as an Alternative to Work Hour Regulation**

The struggle that the public and private sectors have encountered with the reformation of medical residents' work hours has invited creative alternatives to the more straightforward approach of reducing work hours. One such alternative is to hold hospitals tortuously liable for residents' errors that not only occur within the walls of the hospitals, but those occurring outside the hospital, specifically those errors causing automobile accidents.<sup>179</sup> The suggested argument is that when medical residents fall asleep at the wheel, their liability should be imputed to hospitals. Hospitals are held liable by applying analogous case law where employers are held liable for damages from an accident caused by a fatigued employee.<sup>180</sup> By making hospitals liable for damages caused by the fatigued resident in and outside of the hospital, the hospital becomes economically motivated to rectify the conditions that produce such costs. After all,

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<sup>175</sup> *Id.*

<sup>176</sup> *Id.*

<sup>177</sup> See *Felice v. Valley Lab Inc.*, 520 So. 2d 920 (La. Ct. App. 1988).

<sup>178</sup> *Kachalia*, *supra* note 131, at 1055. See also *Siebe v. Univ. of Cincinnati*, 766 N.E.2d 1070 (Ohio Ct. App. 2001).

<sup>179</sup> Andrew Gefell, *Dying to Sleep: Using Federal Legislation and Tort Law To Cure the Effects of Fatigue in Medical Residency Programs*, 11 J. L. & POL'Y 645, 659 (2003).

<sup>180</sup> *Id.*

the main function of tort liability is to deter harmful conduct by making the cost of liability outweigh the burden of precaution.<sup>181</sup>

Falling asleep at the wheel is relatively common among medical residents. One study found that 44% of house staff (medical interns and residents) have fallen asleep at the wheel when stopped at a stoplight, compared to only 12% of faculty.<sup>182</sup> Twenty-three percent of house staff have fallen asleep while driving, compared to only eight percent of the faculty.<sup>183</sup> Overall, 49% of house staff reported to have fallen asleep at the wheel at some point with 90% of those accidents occurring after an on-call shift.<sup>184</sup>

The principle case cited for holding an employer liable for the damages resulting from an automobile accident of a fatigued employee is *Robertson v. LeMaster*.<sup>185</sup> In *Robertson*, the West Virginia Supreme Court found a railroad company liable for damages resulting from an employee's automobile accident when he fell asleep at the wheel.<sup>186</sup> The employee was sent home after working twenty-six straight hours when he admitted that he was too tired to continue.<sup>187</sup> The claim against the railroad was that the company "knew or should have known that its employee constituted a menace to the health and safety of the public."<sup>188</sup> The court, in holding the railroad company liable, asserted that the issue was not whether the company was in control of the employee's actions outside the place of employment, but whether the "company's conduct prior to the accident created a *foreseeable* risk of harm."<sup>189</sup> The employer's conduct of requiring an employee to work unreasonably long hours while knowing that the employee is later going to drive in such an exhausted condition creates a foreseeable and unreasonable risk of harm to the general public.<sup>190</sup> While the railroad company argued that the employee's independent decision to drive while fatigued constituted an intervening cause in the chain of causation, the court found it reasonable that to attribute this

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<sup>181</sup> *Id.* at 683 (quoting *United States v. Carroll Towing Co.* 159 F.2d 169 (2d. Cir. 1947)).

<sup>182</sup> Carole L. Marcus & Gerald M. Loughlin, *Effect of Sleep Deprivation on Driving Safety in Housestaff*, 19 SLEEP 763 (Dec. 1996).

<sup>183</sup> *Id.*

<sup>184</sup> *Id.*

<sup>185</sup> *Robertson v. LeMaster*, 301 S.E. 2d 563 (W. Va. 1983).

<sup>186</sup> *Id.*

<sup>187</sup> *Id.*

<sup>188</sup> *Id.* at 565.

<sup>189</sup> *Id.* at 567 (emphasis added).

<sup>190</sup> Gefell, *supra* note 179, at 660.

independent decision to drive fatigued to the employer's requirement of an unreasonable work schedule.<sup>191</sup>

Arguably, the *Robertson* rational may be applied to the medical resident work hour issue because hospitals, as employers, schedule and require unreasonable work hours for their residents. Thus, hospitals create an environment in which the exhausted resident is forced to make judgments while in an impaired state.<sup>192</sup>

Other courts have followed *Roberston*. A court in Oregon has also held an employer liable under the *Robertson* rational.<sup>193</sup> In *Faverty v. McDonald's*, the court held McDonald's liable for the injuries of a motorist involved in a crash with an exhausted employee.<sup>194</sup> The court found that the employer's liability was reasonable because of the duty arising out of the foreseeable risk of harm created by the practice of allowing employees to work unreasonable hours.<sup>195</sup> The court equated allowing an exhausted employee to get behind the wheel to a bartender being liable for serving an intoxicated patron who later drinks and drives.<sup>196</sup>

Hospitals are well aware of the increased risk of medical residents' motor accidents due to falling asleep at the wheel.<sup>197</sup> Residents are 6.7 times more likely to be involved in such accidents and this information is available to the hospitals and their staff in the form of medical studies and literature.<sup>198</sup> The medical community is highly cognizant of the exhausted medical resident. All physicians have personal experience with the physiological constraints and stresses of work hours, as they all have completed the medical residency program themselves. In addition to this personal experience, the issue of work hour regulation has taken the national stage in terms of state and federal regulatory schemes.

With hospitals' knowledge of the residents' fatigue and the detrimental effect of this fatigue on driving, why not hold the hospitals liable for creating such a foreseeable and unreasonable risk for the general public? Hospitals have deeper pockets than do medical residents. Hospitals are in better positions to reform the work hour issues than are transient and subordinate residents. However, tort

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<sup>191</sup> *Robertson*, 301 S.E. 2d at 570.

<sup>192</sup> Gefell, *supra* note 179, at 662.

<sup>193</sup> *Id.* at 664.

<sup>194</sup> *Faverty v. McDonald's* 892 P.2d 703 (Or. Ct. App. 1995).

<sup>195</sup> *Id.*

<sup>196</sup> *Id.* at 710.

<sup>197</sup> Gefell, *supra* note 179, at 678.

<sup>198</sup> *Id.*

liability is appropriate only if it *deters* harmful conduct.<sup>199</sup> The current state of graduate medical education may not permit hospitals to realistically reduce medical resident's work hours without jeopardizing patient care.<sup>200</sup> Therefore, tort liability would likely not deter harmful conduct, but merely punish a strained medical system in the United States. Changes need to be made in the medical residency program and third party liability for hospitals is a creative approach, but again the consequence of such liability must be examined before fully adopted.

## V. CONCLUSION

The present regulatory schemes have fallen short in their consideration of the number of variables that encompass graduate medical education in the United States, and for this reason, these regulations have not been successful with enforcement and compliance. Consequently, medical residents are forced to violate regulations over which they have no control. These residents then face liability for those violations. This situation is not fair to the patient nor to those medical residents who will be responsible for our nation's care in the future.

To reform a graduate medical system that allows inexperienced residents to care for patients while in a chronic states of sleep deprivation and lacking adequate supervision is not unreasonable. However, those reforms must consider the system as a whole and the consequences that will likely stem from the reformation. The regulations must provide those subject to its requirements incentives and reasonable means to conform. The medical community has avoided attempts from both those within its community and those in government. The reluctance of the medical community to change their engrained system of education must be taken into consideration when enacting new regulatory schemes. All elements of the graduate medical program must be addressed for change to be realized.<sup>201</sup> Senior physician supervision, hospital culture, the culture of medicine in general, available resources, the economic dependence on medical residents, the educational effects, and the legal consequences that stem from regulations must all be addressed in order to create a regulatory

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<sup>199</sup> *Id.* at 682.

<sup>200</sup> See Horowitz, *surpa* note 3 (discussing the economic dependence of the United States medical system on residents long work hours).

<sup>201</sup> Stone, *surpa* note 134.

scheme that the medical profession will be capable of adopting and enforcing whole-heartedly.

To date, the proposed regulations have yet to be enacted. As President Obama has pledged \$634 billion dollars to reform the United States health care system over the next decade,<sup>202</sup> it seems that now would be the time to tackle the glaring problem of the over-tired medical resident. Clearly, the problem of the medical resident will not go away. Major changes need to be made for the safety and protection of both the American public and the medical resident.

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<sup>202</sup> Ceci Connolly, *Obama Proposes \$634 Billion Fund For Health Care*, WASH. POST, Feb. 26, 2009 at A01.