Moonlighting: Pros and Cons for Fellows

John T. Saxon, MD

Moonlighting, or the voluntary delivery of medical care outside of the training institution in exchange for compensation, is a common activity of cardiology fellows. Despite the prevalence of moonlighting, there is a surprising scarcity of published data on the topic. A PubMed search for “moonlighting” yields few relevant results, and most publications are survey results or editorials. Of all publications available on PubMed pertaining to moonlighting, not one is focused specifically on moonlighting during fellowship.

The obvious benefit of moonlighting is the supplement to the fellow’s income. By any measure, cardiology training comes at the price of deferred financial success. Student loan debt accumulates during undergraduate and medical school education and during the 6 to 9 years of postgraduate education in internal medicine, cardiology, and advanced fellowships that follow, while salaries are dramatically lower than future earnings potential. Other major life events, such as marriage, child birth, relocations, and home ownership, tend to intersect with postgraduate training, extending the financial pressures during fellowship and generating a strong impetus for the fellow to seek other sources of income.

The financial opportunity afforded by moonlighting can be dramatic. A cardiology fellow working at $100/h (a typical wage), and averaging 12 h/week (a typical shift), could supplement his or her salary by $60,000/year, prior to income tax. For a postgraduate year 5 fellow earning the national mean of fellowship base salary, this would more than double his or her annual income (1). Not surprisingly, financial gain and relief of debt are cited on surveys as the most important reasons trainees moonlight (2–4).

The majority of moonlighting by cardiology fellows is in the field of internal medicine. A prerequisite to cardiology fellowship is completion of a 3-year program in internal medicine, so board eligibility or board certification in that specialty is implied. The chance to moonlight in the field of internal medicine affords cardiology fellows the opportunity to maintain their skills as an internist during subspecialty training.

Some cardiology fellowships have built-in opportunities to moonlight, although these are less common. In these settings, fellows are hired to cover cardiac intensive care units or to provide consultation and inpatient care services to cardiology patients during night and weekend hours. An attending may either be available as “backup” by phone or pager, or may choose to review the fellow’s decision the following day on rounds. This system has the added benefit of providing an educational experience that directly enhances the mission of fellowship. The fellow is “partially supervised” in that he or she is largely autonomous, although the attending still provides indirect oversight and directed feedback regarding patient care (2,5,6). This incremental, progressive independence is a desirable aspect of any training. Typically, these roles are offered to second- and third-year fellows.

In contrast to this model, there are some instances in which cardiology fellows provide cardiovascular care without supervision, which is potentially problematic. In these cases, the fellow enters into an agreement with a hospital or cardiology group to provide inpatient or consultation services without a built-in system for oversight or backup. The fellow is, in essence, acting as a full-fledged cardiologist, and the care implications and liability are troubling (7). Patients may not be aware that the physician caring for them is not board certified or board eligible in his or her stated subspecialty practice. Even highly functioning fellows are susceptible to errors in cognition, and fellows at all skill levels benefit from
observation and directed feedback, tailored to their level of proficiency (7). Unsupervised cardiology practice during fellowship should be discouraged.

Ultimately, fellowship programs are empowered by the Accreditation Council of Graduate Medical Education with the authority to permit or restrict moonlighting on an individual basis (8). Of the 192 fellowships in cardiovascular disease listed on the Fellowship and Residency Electronic Interactive Database, 178 (93%) allow moonlighting (9). A total of 144 of 192 programs (75%) apply no further restrictions to moonlighting, and 34 programs (18%) allow moonlighting with program-specific restrictions, such as a ban during the first year of fellowship. Five programs prohibit moonlighting only during more demanding rotations like the cardiac catheterization laboratory. Programs typically restrict moonlighting in response to an anticipated or perceived impairment to the fellows’ performance as a direct result of moonlighting activity.

The most significant negative effect of moonlighting during fellowship is inadequate sleep. Sleep deprivation has been linked to several dimensions of trainee performance, including impaired memory formation, diminished professionalism, irritability, cynicism, depression, and anxiety, as well as alcohol and substance abuse (10,11). Cardiology is generally accepted as 1 of the most rigorous fellowships in the subspecialties of internal medicine. Fellows routinely encounter extended work hours; thus, any additional time spent in a taxing work environment has the potential to strain the health of the fellow and negatively affect performance. A fellow will be less enthusiastic about learning or working in teams, and he or she may have diminished perception of well-being whenever sleep loss is excessive (12).

Some degree of sleep loss is an accepted aspect of rigorous training. Indeed, this is an inherent paradox of graduate medical education: sleep loss may impair the formation of new memories, but exposure to acute, high-intensity patient care is a necessary dimension of medical training, and these experiences often occur at night. Cumulative exposure to patient care is required to develop skillsets and consolidate medical knowledge, and this may only be achieved with the inclusion of periodic extensions of normal working hours (“call”). These call periods may disrupt the normal sleep-wake cycle, but they are a necessary component of any high-quality training program. Physicians tend to view the grueling hours of residency and fellowship training as foundational to their professional identities.

However, the sleep loss that is encountered during fellowship duties should not be viewed in the same light as the sleep loss that is caused by moonlighting. Whereas the sleep patterns of fellowship are a necessary feature of the educational model, moonlighting is peripheral to the objectives of fellowship and does not enhance fellowship education directly. In a sense, the acute short-term gains of moonlighting are in direct conflict with the long-term goals of fellowship growth whenever moonlighting is practiced excessively and irresponsibly. Even in pursuit of worthwhile ends such as debt relief, when moonlighting hours are immoderate, the fellow suffers.

Striking a healthy balance between the 2 competing interests is critical. The Accreditation Council of Graduate Medical Education requires that all clinical activity is limited to 80 h/week, when averaged over 4 weeks (8). This includes “in-house” fellowship duties and all moonlighting hours. Programs are required to track and report these hours on an ongoing basis. Regrettably, there is an inherent conflict of interest in this process, as fellows typically are asked to self-report hours, and there is a financial disincentive to disclose hours accurately for those who are moonlighting at a high volume. Hours spent in external systems may go entirely undisclosed.

Fellowship programs must be vigilant in the monitoring of hours and proactive about differentiating fatigue due to fellowship and fatigue due to excessive moonlighting. A low threshold to restrict hours is the most suitable approach to prevent diminished fellow performance. Programs also should provide educational conferences and materials regarding the importance of sleep hygiene to memory formation and professionalism, and they should foster open avenues of self-reporting regarding excess fatigue (9,10). When feasible, opportunities to moonlight “in-house” provide both the supplemental income that de-incentivizes external moonlighting and the opportunity for cognitive oversight and feedback.

In broader terms, addressing the underlying stimulus to moonlight may be more successful than the difficult task of regulating moonlighting hours at the individual level. Financial strain is the driving force behind moonlighting; thus, higher fellowship salaries, student loan forgiveness, or subsidies for child care would ease the impetus to moonlight excessively. These measures would likely require national legislative action.

Moonlighting during fellowship can have an undeniable benefit to the lifestyle of a cardiology fellow. Cognitive experience can be gained from the supplemental work, especially if the fellow is practicing as a cardiologist in his or her sponsoring institution. However, programs and fellows alike have a
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Blase Carabello, MD
Mount Sinai Beth Israel Department of Cardiology, Beth Israel Hospital
E-mail: bcarabello@CHPNET.ORG

I read Dr. Saxon’s extraordinarily well-balanced treatise on moonlighting with both interest and reverence. It brought back memories of my own fellowship and my own moonlighting experiences. He hit the nail on the head, recognizing that moonlighting is now and was then a long-term responsibility to maintain a healthy balance of moonlighting activities with clinical duties. Ultimately, the fellow’s long-term responsibility remains to his or her educational growth, which should not be sacrificed for the short-term gains of moonlighting.

My personal moonlighting consisted of 2 major jobs: one as the medical director of an inpatient alcohol detoxification center, and the other as what today would be called a hospitalist at a hospital outside of Boston. Both provided important cognitive experiences that color my deportment as a physician almost 40 years later.

The detoxification center was run entirely by nurses—both licensed practical nurses and registered nurses—using a standard withdrawal protocol. Besides developing an understanding of addiction and empathy for addicts, I learned the power and capabilities of physician extenders in a complex setting at a time when extender roles were rare.

My experience as a hospitalist at a good small hospital taught me to be respectful of the care offered there, avoiding the cynicism and skepticism that some of my academic colleagues harbored about “outside” hospitals. It also taught me how to think on my feet and to use common sense when the more expensive tests at my fellowship hospital were not available at my moonlighting site. It taught me parsimony in diagnostic work-ups and reliance on clinical judgment in lieu of unnecessary testing. I also learned how to cope with sleep deprivation. Although recent duty hour regulations and attention to sleep requirements have added sanity to our profession, sleep deprivation in the practice of medicine remains. Societally, we have to devise an educational system for physicians that avoids the bone-crushing debt that can alter career choices of trainees and that creates the need for moonlighting. However, the exposure to the extracurricular types of medicine that some types of moonlighting options afford can be a valuable experience, enriching a physician’s background and augmenting his/her understanding of the profession.

REFERENCES

REPRINT REQUESTS AND CORRESPONDENCE: Dr. John T. Saxon, University of Mississippi School of Medicine, 2500 North State Street, Jackson, Mississippi 39216. E-mail: jtsaxon@umc.edu.