

Not enough sleep gets in the way of success

September 26 2011, By Cathy Cockrell



Photo illustrations: Hulda Nelson

Berkeley senior Jeff Wayland spent the past two years living in an off-campus apartment, dubbed “The Percussion House,” with five to eight other Cal Band musicians. So he’s well-versed in the late-night routine observed in many student quarters: ordering pizzas at 11 p.m., playing music or video games long past midnight, or studying through dawn before midterms and finals.

“It’s popular to stay up as late as possible” and rise early, he says. “And it’s the reverse of what you should do. We’re designed to go to [sleep](#) when it gets dark.”

If Wayland expresses a less-than-popular opinion with certainty, he has his reasons. For most of his college career, the cognitive science major has held a student job in a psychology-department sleep lab—prepping human subjects for closely observed periods of wakefulness or sleep, monitoring their brain activity on a computer screen overnight, and administering tests to measure the effects of sleep (or the lack thereof).

Earlier sleep research at Berkeley established the role of part of the hypothalamus in our daily circadian cycle. Recent work has shed light on sleep’s important role in regulating mood and emotions—and demonstrated how sleep deprivation can lead to poor judgment and addictive behavior, as well as cravings for fat and salt. “Confirming with science,” Wayland says, “what you could tell us if you stayed up all night.”

Last year, for a research paper of his own, Wayland crunched data on sleep deprivation and its effects on memory. “I wanted to see if it’s worth it” to pull an all-nighter, he explains. “It’s totally not worth it! All those people who stay up really late are probably lowering their test scores by five percent—maybe more.”

Granted, Wayland studies all night “every once in a while.” But those endurance tests are increasingly rare. He strives to get to bed by 10 p.m. before an exam, and encourages his roommates to do the same—with considerable success, he reports.

“Staying up for 44 hours straight, taking a final, then falling asleep for 12 hours”—students know, “in the back of their heads,” that that’s not a formula for performing their best in school.

Vigilance among beasts

You don’t have to be considering a career in neurosurgery, as Wayland

is, to be curious about the whys and hows of sleep. Whenever the upper-division elective “The Psychology of Sleep” is offered, droves of undergrads from wide-ranging majors sign up for the semester-long look at “the secrets of the sleeping brain and dreaming mind,” as it’s described.

“Everyone is quite fascinated with sleep and dreams,” notes Professor Allison Harvey, a clinical psychologist, who describes herself as “passionate about sleep” and aware of “the havoc that sleep disorders can cause in people’s lives.” Harvey takes turns with sleep researcher Matthew Walker in teaching the “big sleep course”—she from a clinical perspective, he from the neuroscience angle. “It’s intrinsically interesting” that we spend a third of our lives sleeping, she says, yet so many questions about sleep remain.

Early in the semester, students learn about the sleep patterns of plants and animals—“who is prey and who is predator” plays a key role in where, how, and for how long a mouse, giraffe, or lion catches its z’s. Feeling secure, it turns out, is a prerequisite of sleep in the animal kingdom—including for *Homo sapiens*.

Harvey is fascinated with how best “to help people feel safe, so as to switch off all the concerns of these monkey brains of ours.” With funding from the National Institute on Mental Health, she is currently researching talk-therapy interventions that may improve the sleep of those with depression, anxiety and/or other psychological disorders.

For all of us, Harvey says, being able to fall asleep is about “learning the skills for dropping vigilance” and establishing a routine for going to bed and getting up at about the same time every day. A consistent wake-up time is particularly important, she insists. After all, once you climb into bed at night, you can’t guarantee when you’ll actually drift off. But setting an alarm clock to rouse you from your slumbers in the

morning—that’s something you can control.

“If you throw an anchor off a ship, the ship’s not going to move too far,” Harvey says. “The same applies to our circadian rhythms: unless we have that wake-up time locked in and anchored, everything else is just going to spin in a way that is very unhealthy.”

The view from Tang

To gain an appreciation of undergrads’ personal challenges around sleep, University Health Services’ Tang Center offers an enlightening vantage point.

Dr. Harris Masket, chief of urgent-care medicine at Tang, reports being “impressed” by the sheer variety of sleep disorders that come his way—from oversleeping to sleep-inhibiting anxiety disorders and physical issues like sleep apnea. Then there are students who visit Tang with stress-related insomnia, many of whom “end up medicating themselves,” he notes—with Tylenol PM being one popular remedy, as well as prescription sleep medicines (their own or a friend’s), alcohol, or marijuana.

And while many students want to get more sleep (but have trouble quieting their minds), reportedly even more believe they can survive, even thrive, consistently on five or six hours of sleep—relying on energy drinks and coffee to keep them going.

Everyone who works at Tang has anecdotes about students who undervalue sleep, Dr. Masket says. He recalls one freshman in particular who landed in Urgent Care with an upper-respiratory infection just weeks into the fall semester: “It turns out he was only sleeping four hours a night. He felt he had to stay on top of everything” in order to succeed at Berkeley. “I said, ‘You’re not going to make it like that. Your body

won't do it. There needs to be another way.”

UHS staff psychologist James Lyda is in the business of helping students whose sleep issues are essentially behavioral, rather than medical, find “another way” to deal. In an initial intake interview, he almost always probes about a student’s “sleep hygiene”—asking, “How are you sleeping?” and “What does your sleep schedule look like?” Often anxiety is at play. “Stress levels are generally high. Many go quickly from being big fish [in high school] to little fish [at Berkeley],” Lyda notes. In the attempt to excel, sleep may be deemed expendable. Some students complain they can’t focus. They think they have Attention Deficit Disorder, he says, when what they actually have is sleep deprivation.

Run hard, sleep later

Underestimating sleep’s importance, Lyda adds, “may be connected to being young—believing you can recover from sleep deprivation” as soon as the midterm or final is over.

In Urgent Care, Dr. Masket encounters the fallout of this run-hard, sleep-later approach—whose health consequences are so predictable, particularly in early fall, that he’s invented a maxim and given it a name. According to his “September Rule,” freshmen arrive on campus in August. Reveling in their newfound freedom, many begin to short-change sleep, exercise, and proper diet. For a while their bodies cooperate, and they “conclude they can do this forever,” he says.

But at age 18, “your body can last about four weeks” on this punishing regimen, he’s observed. “Sometime in late September, they come in the sickest they’ve ever been—with mono, the flu, pneumonia, or a terrible cold. That’s when they start learning there’s something to this sleep thing.”

Sometimes problems with “this sleep thing” have much more to do with their living environment than overestimating their stamina. “If you had your own room at home, and now your roommate’s up with the light on studying or has somebody over, that’s a big adjustment,” Lyda notes. “Now it’s not just your schedule you have to account for, it’s your roommate’s as well.”

Healthy sleep advice

Counselors at Tang can provide coaching on “how to talk to your roommate in a non-confrontational way,” Lyda suggests. “This fits in with the role we play—meeting students where they are developmentally.” If an undergrad lacks experience in “how to confront somebody, have a difficult conversation, and make a request of a peer, we help them learn to do that in an adult, effective manner.”

For anyone seeking better rest, the National Sleep Foundation’s “2011 Sleep in America Poll”, on whose professional task force Professor Harvey served, may prove illuminating. Titled “Sleepy Connected Americans,” the new report explores, in particular, the pervasive use of communication technology (delineated by age and technology type) in the hour before bed—when our bodies, in fact, need dim-light conditions and de-arousing activities in order to promote release of the sleep-inducing hormone melatonin.

The report also includes “healthy sleep advice”—[a list of tips](#) on, among other things: sleep schedule, caffeine, nightcaps, and naps.

Harvey heartily endorses another of the report’s recommendations—regular exercise—as “great for sleep and reducing anxiety.” Building social support and a network of good friends has also been shown “to be fantastic for sleep, fantastic for anxiety.”

“That’s something parents can help with,” she adds. “Send care packages, email, messages of love and caring.” Such gestures can help assuage the “fear and vigilance that get in the way of sleep.”

More information: 2011 Sleep in America Poll - bit.ly/r6nvj2
“The Importance of Sleep in College” (video) Student outreach project for “big sleep” class - bit.ly/qw6DyF

Provided by University of California - Berkeley

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