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25 Ways to be a Sleep Health Activist

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STRONGER TOGETHER: THE SLEEP COMMUNITY RESPONDS TO TRAGEDY

So much has happened to our membership since our last issue. Hurricane Harvey devastated parts of Texas and New Orleans, resulting in 40 inches of rain in some areas and record flooding. That was followed by a second hurricane that devastated parts of Florida, the U.S. Virgin Islands and Puerto Rico.

As the bulk of my business is in Texas we took action and worked to donate needed supplies; the feeling of wanting to do more was a collaborative message I heard loud and clear. I took comfort in seeing the sleep community pull together to help those in need. I was touched by the stories that I heard from Texas.

One example of that is from Marilyn Swick, RPGST, who owns Houston Sleep & Neurology with her husband Todd J. Swick, MD, DABSM. She worked tirelessly to help in the recovery and assistance efforts and offered her offices up as a supply office for those patients needing replacement PAP therapy equipment and supplies. This effort was amplified by the work of American Sleep Apnea Association (ASAA). Adam Amdur, Chief Patient Officer at ASAA, announced the volunteer work of Sleep Angels who coordinated the delivery of hundreds of PAP machines and numerous supplies for on the spot dissemination in emergency clinics and medical centers in Texas. My friend Teresa Shumard was busy behind the scenes helping coordinate the work while the she and Tamara Sellman, RPSGT, continued to get messaging out on the importance of sleep wellness and finding the support these hard-hit communities needed.

Now that we are working hard in the recovery efforts following these devastating storms, we have new tragedies to which to respond. Shocking the world was the unthinkable violence which happened in Las Vegas with the deadliest mass shooting in modern U.S. history. This was all followed by the largest natural disaster in U.S. history with the wildfires that swept through Southern and Northern California, as well as Oregon.

I found myself feeling overwhelmed, and angry in the wake of all these tragedies. I started hearing the term “compassion fatigue” and realized this was what I was indeed experiencing. Compassion fatigue occurs when an empathy response, feeling the feelings of others—causing one to internalize the trauma of their community and the nation—becomes overwhelming. I encourage you to take the time to talk to your families and your colleagues about how they are feeling. Take the time to talk about the helplessness and even grief that they may be feeling. It is important to acknowledge that even though we have patients to care for, we must work to normalize our day and focus our daily experience as much as possible; eating regular meals, getting adequate periods of rest and even reducing the mental demands that allow the fatigue to fade.

So as the year closes I am reminded of the importance of both this sleep community in which I work, and this membership organization in that I have the privilege to volunteer. I am reminded of Sheryl Sandberg’s (Facebook Chief Operations Officer) New Year’s resolution back in December of 2015. She committed to “Choose Life and Meaning Over Tragedy”. This was in response to the loss of her husband, but I find the message relevant for me now. I know that together we are stronger than individually and within this sleep community we are never alone!

Wishing all my readers a Happy and Safe Holiday Season and a Happy Fulfilled New Year!
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Mission: The American Association of Sleep Technologists (AAST) promotes sleep wellness and leads the sleep technology profession through education, resources and advocacy.

Vision: The American Association of Sleep Technologists (AAST) will play a key role in setting the standard for professional excellence in the evolving practice of sleep healthcare.

Purpose: To provide a voice for the professionals who ensure the safe and accurate assessment and treatment of sleep disorders.

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A2Zzz publishes articles that relate to the profession of sleep technology and informs members about recent and upcoming activities of the American Association of Sleep Technologists (AAST).
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Do you remember the ‘Choose Your Own Adventure’ series of children’s gamebooks? Popular in the 1980s and 1990s, these stories were written from a second-person point of view, with the reader asking to make choices that would ultimately determine the outcome of the story. In a way, you can consider these books a form of immersive learning, where rather than being pulled along by the narrative, you are instead becoming an active storyteller.

So, what does this have to do with sleep technology, you may ask. Well, if you have checked out the revamped online learning system offered by AAST lately you will see that the tools and resources presented are built much in the same manner as a choose-your-own-adventure book. Whereas in the past our educational resources have been mostly static video and quiz formats that presented information at you, the new and improved educational center for AAST is built to be more interactive where participants are guiding the lesson based on certain preferences. The goal is to build our curriculum around a series of decision points that lead you in different directions—in other words, how you answer certain questions will lead you down different paths.

Not only that, but the new system is built for your on-the-go lifestyle, as it is more mobile responsive (allowing you to participate on your devices) with the ability to access pieces of a lesson (rather than the entire lesson) and even start a lesson, and come back later to pick up again at any point.

We heard from our members and have created a learning system that matches individual learner needs. In other words, not everyone learns in the same manner. And according to Dr. Richard Rosenberg, AAST’s Education Consultant, it is a format that will ultimately prove to be more clinically relevant to shaping the education of sleep professionals. He points to the standard pyramid of learning styles, which says that a lecture or passive form of learning (the top of the pyramid) isn’t as effective as an actual demonstration or the practice of doing (further down on the pyramid). While he admits that the pyramid isn’t 100% accurate, he can attest to the fact that having a more immersive experience is ultimately better for the learner.

What makes me excited about this is the fact that it perfectly aligns with one of AAST’s strategic goals, which is: Recognize and define the various roles in a sleep program, the skills required and professional standards for each role within the context of the changing healthcare environment.

SmithBucklin, as our new association management company, is helping to fulfill this goal through a commitment to assist the AAST to define the skills, education, experience and credentials that each of the various stakeholders requires to succeed in their role in the sleep center. Together we are focused on developing the guidelines, best practices, protocols and standards, along with building a stacking credentials model to enhance the continuing education for all of the various AAST stakeholders.

And this is just the tip of the iceberg. The learning systems that are in place are not yet being utilized to their fullest capacity. Currently what you see in place is our baseline functionality for a new learning experience, and AAST staff is working diligently behind the scenes gathering feedback from users about their experiences thus far. With that feedback they are putting plans in place to begin introducing even greater functionality to the learning system.

This is all a part of our philosophy to make data-driven decisions for our members. And that is an adventure that all of us should ultimately choose.
INSTRUCTIONS FOR EARNING CREDIT

AAST members who read A2Zzz and claim their credits online by the deadline can earn 2.00 AAST Continuing Education Credits (CECs) per issue – for up to 8.00 AAST CECs per year. AAST CECs are accepted by the Board of Registered Polysomnographic Technologists (BRPT) and the American Board of Sleep Medicine (ABSM).

To earn AAST CECs, carefully read the four designated CEC articles from the list below and claim your credits online. You must go online to claim your credits by the deadline of March 1, 2018. After the successful completion of this educational activity, your certificates will be available in the My CEC Portal acknowledging the credits earned.

STATEMENT OF APPROVAL

This activity has been planned and implemented by the AAST Board of Directors to meet the educational needs of sleep technologists. AAST CECs are accepted by the Board of Registered Polysomnographic Technologists (BRPT) and the American Board of Sleep Medicine (ABSM). Individuals should only claim credit for the articles that they actually read and evaluate for this educational activity.

COST

The A2Zzz continuing education credit offering is an exclusive learning opportunity for AAST members only and is a free benefit of membership.

STATEMENT OF EDUCATIONAL PURPOSE & OVERALL EDUCATIONAL OBJECTIVES

A2Zzz provides current sleep-related information that is relevant to sleep technologists. The magazine also informs readers about recent and upcoming activities of the AAST. CEC articles should benefit readers in their practice of sleep technology or in their management and administration of a sleep disorders center.

Read and evaluate the four following articles to earn 2.0 AAST CECs:

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THE NEXT STEP
IN
Sleep

By AAST Editor
Ever wonder what the next-generation sleep professional looks like? Try one that is part technologist, part educator, part strategist.

The future looks bright for a profession that started in a very tactical role of overnight monitoring and record scoring. Today, the career path of the sleep professional is one that is evolving to become multi-faceted, strategic to the practice and integrated into the broader allied healthcare environment. This evolution will require the need for technologists to evolve as well, to become better educated with the ability to demonstrate competency in a number of different roles.

This evolution has been driven by changes in the way sleep disorders patients are diagnosed and treated, as well as an evolution in the focus in medicine from diagnosis to outcomes. Speaking to the former, private insurers require pre-authorization for laboratory sleep studies and are incentivizing home sleep apnea testing (HSAT) for most patients suspected of obstructive sleep apnea. Likewise, reimbursement for home testing will be lower than for laboratory testing, which could require technologists to obtain a higher level of training and the skills to care for more complicated patients.

What it all shapes up to is a new set of challenges and opportunities for the future of sleep professionals. The next step in sleep involves being tech savvy, highly educated and even strategic in your approach to dealing with patients and allied healthcare partners alike.

The formula for readying the next generation of sleep professionals is already in place, guided by AAST. As a community of like-minded individuals with access to the most relevant sleep education resources, AAST provides professionals with the right tools to evolve their education and be the most knowledgeable in the industry — which ultimately leads to unparalleled patient care.

In the coming months, AAST will be rolling out a series of educational resources to help members take this next step forward. Our mission as an association is to define new roles for sleep technologists and provide the resources and education necessary to ensure the next step forward is one that every professional can take with confidence.

"Our mission as an association is to define new roles for sleep technologists and provide the resources and education necessary to ensure the next step forward is one that every professional can take with confidence."
In order to succeed as a competent sleep technologist in the traditional sleep center today, the proper training and resources are essential to guide the educational journey. The AAST provides the following job description, professional education and core competencies to assure competence of the sleep technologist today.

**JOB DESCRIPTION**

Trained in sleep technology and relevant aspects of sleep medicine, sleep technologists assist in the evaluation and follow-up care of patients with sleep disorders as identified in the current International Classification of Sleep Disorders. Sleep Technology is recognized as a separate and distinct allied health profession. The scope of practice of sleep technologists enables them to work in sleep centers, laboratories for sleep related breathing disorders, Durable Medical Equipment (DME) settings, academic and industry research settings, home environments, and non-facility-based settings under the direction of the sleep specialist.

Credentialed by the Board of Registered Polysomnographic Technologists, American Board of Sleep Medicine, or the National Board for Respiratory Care, sleep technologists assist sleep specialists in the clinical assessment, physiological monitoring and testing, diagnosis, management, and prevention of sleep related disorders with the use of various diagnostic and therapeutic tools providing care to patients of all ages. These tools include but are not limited to polysomnographs, positive airway pressure devices and accessory equipment, out of center sleep testing (OCST) devices, oximeters, capnographs, actigraphs, nocturnal oxygen, screening devices, and questionnaires.

**PROFESSIONAL EDUCATION**

The profession of sleep technology requires engagement in various educational efforts. Completion of training and competency assessment by an experienced and registered technologist under the supervision of a sleep medicine physician is the minimum requirement for working independently. Completion of an accredited training program and certification is currently recommended. Certification and/or licensing are required in some states. Participation in continuing education each year to advance personal excellence is strongly recommended along with participation in the education of other sleep technologists, technicians and trainees. Participation in self-assessment, quality assurance, and quality improvement initiatives of the sleep center assures ongoing competence. Continuing education is required for maintenance of certification, to meet sleep center accreditation requirements, and may also be required for licensing.
PATIENT CARE AND EDUCATION

The sleep technologist, technician and trainee are responsible for the care, comfort and safety of the patient. An understanding of the patient’s sleep and other medical problems, including medications is essential. The technologist interacts with the patient throughout the evaluation to assure patient comfort and safety, and to promote patient understanding of and compliance with all procedures and treatment.

COMMUNICATION

The practice of polysomnography requires interactions with numerous individuals including the patient, members of the patient’s family, the sleep medicine physician, and other technologists and physicians. Proficient verbal and written communication skills are essential.

ADDITIONAL TASKS

The sleep technologist may perform other tasks and duties such as managing a sleep center or sleep medicine practice which includes patient scheduling; material and supply management; supervision of staff, students or ancillary personnel; training, educating, and professional development; development of policies and procedures; fiscal management and billing; preventative maintenance; and data management. Additional tasks may also include data collection, administrative report generation, maintaining compliance standards, employee review, documentation and process oversight.

CORE COMPETENCIES

The AAST Standards and Guidelines Committee in association with the AAST Board of Directors has developed a series of core competencies to ensure quality and consistency in the sleep technology profession. The AAST encourages sleep centers and sleep technologists to use these competencies for education and evaluation purposes. Sleep technologists who satisfy all 11 core competencies meet the AAST’s current standards of professional knowledge.

- Sleep Health Educator
- Polysomnography
- Scoring Sleep Stages and Clinical Events in Polysomnographic Technology
- Home Sleep Apnea Testing (HSAT)
- PAP Titration in Sleep Technology
- Age Specific Care and Evaluation
- Supplemental Low Flow Oxygen and Titration
- CO2 Monitoring
- Monitoring Pulse Oximetry
- Maintenance, Cleaning and Safety Precautions in Polysomnographic Technology
- Patient Assessment and Vital Signs Measurement and Documentation

www.AASTweb.org/core-competencies

They are on board with how important sleep is to performance and recovery and are confirming this through their actions. Players are using special wearables, special bedding, noise machines, and even special compression pajamas to take advantage of every moment of their training. This training now includes their sleep time. I look forward to seeing how all the professional, college, and high school teams adopt sleep training as a normal part of their sports regimen! It is not a matter of “if,” but rather how quickly this trend to “sleep train” continues to develop!

David Gozal, MD, MBA, is the Herbert T. Abelson Professor at the University of Chicago, where he also holds the title of Pritzker Scholar and recently celebrated nine years there. He received his MD from the Hebrew University of Jerusalem, completed his pediatric residency at the Haifa Medical Center in Israel, and then spent two years in Cameroon, West Africa.

“My outlook for sleep technology incorporates 4 major driving concepts that fit into the acronym: SAIPP, namely Sensors, Artificial Intelligence, Personal and Prevention. Major advances into nanotechnology and nanomaterials, molecular engineering and molecular circuits and biologic interfaces will permit seamless assessments of physiology and disease in a naturalist environment, i.e., “anywhere” as the standard point of diagnostics and care. Machine learning and robust algorithms will extract and integrate the multitude of biological and environmental parameters being continuously collected, and accurately predict risk, also providing real time feedback to the patients while guiding them towards healthier behaviors and timely seeking of therapy. At the end of the day, any disease, including sleep disorders is personal. The collective massive integration of data will incorporate ‘Omics’-based biomarkers in the optimally-tailored individualized decision trees of diagnostics and treatment, each individual as the n=1 successful trial.
Sleep technology will ultimately need to bring anticipatory risk recognition and effective risk minimization approaches to each individual. I look forward to the day that SLEEP is incorporated as the major pillar and motto for a collectively successful community, reflective of societal wellness and health.

Daniel D. Lane BS, RPSGT, CCSH is President of the Board of Directors of the Board of Registered Polysomnographic Technologists. He currently works as a Clinical Sleep Health Educator for Sleep Center Orange County in Irvine, Calif. He has been in the sleep technology field for over twelve years, and remains deeply passionate about clinical sleep health and patient-centered care.

The world of sleep science is still relatively small. However, with the growing epidemic of sleep deprivation and technology, the future of the sleep technologist industry continues to grow at lightning speed. Sleep is the power of life. Lack of sleep hijacks the body’s control of blood sugar, blood pressure and the immune system. Studies show that short sleep can affect our cancer-fighting immune cells and significantly raise the risk of developing Alzheimer’s disease. It is interesting to note that Margaret Thatcher and Ronald Reagan, both of whom were vocal about how little sleep they needed, went on to develop the disease. Sleep technologists play a very important role in the diagnosis and therapy of sleep disorders. There are 88 diagnosed sleep disorders, and two-thirds of adults fail to obtain the needed eight hours of sleep each night. The role of sleep technologists will evolve into an expanded profession, and their scope of practice will embrace a more comprehensive approach to sleep medicine. They will work more closely with patents to educate and empower them to better self-manage their sleep disorders. Without sleep, there is low energy and disease. Sleep will become the preventive medicine.

The future of the sleep technologist is positive and exciting. Drawing from the collective knowledge the field has to offer, hearing and learning from our counterparts, is a surefire way to make our work more impactful and more relevant to the industry. The future of the sleep technology industry is the key to effective strategies for improving sleep initiation and maintenance, sleep duration, and sleep quality.

“Sleep technology will ultimately need to bring anticipatory risk recognition and effective risk minimization approaches to each individual.” – David Gozal, Herbert T. Abelson Professor at the University of Chicago
In today's self-help, consumer-centric, health-conscious, latest-and-greatest marketplace, we are inundated with various gadgets, apps, advice from gurus and doodads that claim to make our aches go away, to help us sleep better, to help us lose weight, to make us happier, thinner, richer or live the rest of our lives with wrinkle-free skin. It is the equivalent of the wild, wild west and the snake oil salesmen rule the roost. And yet, is there any validity to some of these claims? Can the myriad of “sleep trackers,” actually deliver on their promises? Are they worth the cost of the plastic that they are built around?

Does this sound familiar? You are setting up your patient. They are on the chair in front of you. You start measuring their head and you casually ask, “So, why are you here? What brings you to the sleep lab tonight?” Usually, they answer with “Well, my wife made me come here... because I snore.” What follows is a long list of all their sleep (and inevitably non-sleep) related complaints. And once in a while, we get “but the app that I downloaded (or the gadget I just bought) tells me that I sleep just fine.”

Ahhhhh... that latest piece of software or technology that promises to make our jobs obsolete. The “sleep tracker” or “activity monitors.” We are seeing more and more people wearing them. Curiosity about our personal sleep has always been high. After all, by definition, our own sleep is something we cannot directly observe. And inevitably, the question is asked... “So, just how good are these gadgets? Did I just waste my money?” What do you say? Is there advice from gurus and doodads that claim to make our aches go away, to improve your sleep or to better stay awake.

Without a doubt, these are very technologically advanced apps and software, and when used in the right context, are a great source of information about our sleep-wake cycles. The problem arises when the claims from some manufactures, or the assumptions from some patients, infer much more than the data shows. For example, some sleep trackers claim to stage your sleep, from a simple sleep vs wake, to a detailed histogram showing Awake, Light Sleep, Deep Sleep and REM stages. Some claim to be able to “sense” or diagnose sleep disorders, or even treat them. Using a combination of sensors, accelerometer, pulse, position, SpO2 and snore recording, some companies will promise you the moon – a sleep lab quality analysis of your sleep.

So now that we are all on the same page as to what these gadgets are, and what they can do, how shall we answer the patient's original question? Are these gadgets worth the time and money? Do they really “work”? Are they accurate? The answer all depends on what the patient wants to learn from the information.
A QUESTION OF VALIDITY

Patients have to understand that these consumer gadgets cannot tell you what stage of sleep you are in. They can estimate, they can infer, but they cannot claim to know what stage of sleep you were in. Sleep stages are defined by changes in the EEG record, in frequency, amplitude and morphology, in combination with eye movement and chin EMG. So, by definition, without these recordings, one cannot reliably interpret sleep stages from the dataset. My first piece of advice is to be highly wary of any gadget company or app that tells you otherwise. Even in research, actigraphy itself infers only sleep vs wake. It will not attempt to determine stages of sleep. In fact, whereas actigraphy has been shown to be reliable in differentiating between sleep and wake periods for normal healthy adults, as soon as a sleep disorder is introduced, the identification of sleep periods becomes less reliable. Actigraphy is great when estimating the total sleep time but loses accuracy when there is fragmented sleep.

Some sleep trackers tackle only a single variable, or a few narrow and well defined parameters. These simpler sleep trackers are likely more accurate, but the information they provide is also limited in scope and usefulness. For example, there is an app that just records snoring and body movement. It makes no assumptions other than general sleep vs wake. There is another app that focuses on napping only. Using motion sensing and an alarm timer (which you set), it targets naps of appropriate duration (20-30 minutes), starting when you fall asleep, as defined by a reduction in movement. How many times have we set the timer to ring within 30 minutes, only to take 25 minutes to fall asleep, resulting in a 5-minute nap. This app attempts to address this problem, and this problem only. When we stop moving around, the count-down starts.

I would be wary of any over-reach type claims by gadget makers, assigning too much weight or validity to the data collected that cannot be fully backed up scientifically. For example, there is an app that records only sound but can somehow differentiate between light sleep, deep sleep, and awake. It will even know if there are two people in the same room. Some apps also claim to sense obstructive apnea and will vibrate to wake up the sleeper so as to induce them to turn on their side. As a rule, I would be very wary of any gadget or app that claims to diagnose or correct ANY sleep disorder. I would make it very clear to my patient that only the polysomnogram can truly diagnose sleep apnea or determine stages of sleep.

PROPER CONTEXT

However, if patients understand the inherent limits associated with this technology, then the information they get can be helpful if used in the correct context. Although sleep-stage information is probably more often wrong than right, uncomplicated sleep-wake information would likely have a higher degree of accuracy. Keeping in mind that valid and reliable data cannot be assured by the use of these gadgets, or apps, one can still use their information to delineate trends on how their diurnal activities impact their nocturnal period. This is especially helpful when used in conjunction with a sleep-diary type app. For example, one can see how five cups of coffee, or a two-hour nap, in the middle of the day might impact their sleep at night. They can track the effects of their lifestyle choices on their nocturnal sleep.

What effect does staying up late, drinking that third glass of wine, or exercising have on their sleep?

Some apps also assess sleep behavior and offer advice or hints to improve sleep or alertness, from tips on sleep hygiene to exercise videos to stay alert, to types of foods and drinks that could help improve sleep. Some advice, of course, is better than others, and an overall general recommendation cannot be given at this time. It depends on the app, the source and accuracy of the advice, and how that information is presented. The point is, some of that information is good and if used as general advice, can be beneficial to the patient. For example, one gadget maker’s website states, “You sleep a bit better on nights after a run. It’s subtle, but you spend five fewer minutes being restless/awake on those nights.” Another potential insight could be: “Starting your day at a regular time helps lock in a stable circadian rhythm. This week you did a great job by having a consistent wake-up time!”

These apps are also useful to the sleep lab or the sleep professional, if used in the correct context. One can regard these as an updated and modernized version of the sleep diary, with built-in actigraphy. It gives the medical professional a little more information on the patient’s daily activity. It can also be used to very roughly estimate the overall effectiveness of therapy. For example, if a patient undergoes light therapy to reset their circadian clock every morning, these gadgets or apps can help glean conclusions as to the therapy’s efficacy.

CONCLUSION

Giving people more tools to interest them in their sleep health is always a good thing, and in the proper context, these gadgets or apps can be useful in tracking general trends in someone’s sleep pattern. However, we could and should remind our patients, as always, that any questions they may have would be best answered by their sleep physician, rather than blindly following whatever advice they find online or in their gadget/app.

Consumer gadgets researched for this article:
Fitbit brand of activity monitors; Oura Ring; Apple Watch; Google Watch.
As sleep professionals, you seek timely and applicable sleep-related knowledge. Your AAST membership provides valuable offerings that keep you abreast of the evolving sleep field.

Renew your membership today to ensure you continue receiving the latest in:

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- **Networking opportunities** that will help you create valuable life-long connections

RENEW TODAY
25 WAYS TO BE A SLEEP HEALTH ACTIVIST
By Tamara Sellman, RPSGT, CCSH

Regardless of the field you work in, you will notice that most people are pretty satisfied with what they do at their workplace. However, you might notice a small percentage of peers who seem to go above and beyond what’s required of them on the job.

Who are these people and why do they do what they do?
Generally, ambition and passion drive these coworkers. Some simply have more energy to pursue work-adjacent activities. Others may be on a personal mission inspired by the experience or situation of a loved one.

In the world of sleep medicine, those who do more than just what their job requires might be considered sleep-health activists.

Why activists? These days, the field of healthcare has taken on a politicized, even galvanized tinge, and so much of what can be accomplished in research, diagnostics, therapies, and business management for sleep labs rests on policymaking at the governmental level: from Washington D.C., all the way down to the politics inside your local hospital systems.

Being a part of the changemaking that can support the best practices of sleep labs and clinics and which can lead to better patient outcomes definitely requires an activist mindset.

Obstacles abound, from insurance mandates to patient health literacy to sleep apnea screening opposition to school districts with unhealthy bell times. These are larger influences over sleep health that our patients are dealing with beyond their other more pressing concerns, such as living with a sleep disorder.

For allied healthcare workers in the field of sleep medicine, the desire to speak for the burdens of patients and the need to address these external obstacles is a chief reason why they decide to take action.

WHY BE A SLEEP HEALTH ACTIVIST?
There are a number of reasons for seeking out a mission as a sleep technologist.

• **Personal satisfaction:** Being able to make a difference in the lives of others while using your skill sets and expertise means you really will sleep better at night.

• **Community involvement:** When you open yourself up to the community you live in to educate your neighbors, empower families, and emphasize good sleep as the “third pillar of health,” you widen your circles in a way that draws like-minded people who can and will be supportive. Friendships and alliances are a desirable result.

• **Raise your level of expertise:** You can’t be effective as an activist unless you have a much more comprehensive handle on sleep health than the ordinary person. The opportunities to expand your knowledge are boundless as an activist.

• **Broaden your sleep health horizons and networks:** Once you put yourself out there, other sleep health activists will emerge and welcome you to the effort. Ours is a smaller healthcare community, so you will quickly become aligned with sleep physicians, activist nurses, bloggers, researchers, and patient advocates. In this way, your sleep “family” will grow tremendously.

• **Make change in the world:** You already know how this feels. Remember the patient (or patients) you treated with CPAP that first night in the lab, and how they awoke to find they were a new person for getting their best sleep in a decade? Being a sleep activist allows you even more opportunities to reach out and make change, whether it’s one on one with an individual or by way of a widespread effort to affect policy or reach many concerned citizens at once.

WHAT TO EXPECT FROM WORK AS A SLEEP HEALTH ACTIVIST
Let’s be honest, though... working as a sleep health activist isn’t all heroics. There’s a dark side to prepare for:

• **No thanks:** You may reach out and do a great deal of work without a single thank you from anyone.

• **No pay:** Most efforts at sleep health activism are “pro bono,” meaning you are probably not going to be funded, or if you are funded, it is only for materials and other costs. In some cases, you might earn a small income or receive grant funding or a small award, but it probably won’t be enough to live off of.

• **No budget:** For profit or nonprofit entities are strapped these days, so you may find you are working on a shoestring budget or have no money at all to do the things you want to do.

• **Uses up free time:** Much of activism relies on the support of volunteer efforts. These efforts most definitely take place outside one’s normal working hours on the job, and the workload can vary from an hour or two a week to 20 or more hours weekly, depending upon what you are willing and able to commit to.
• Lots of barriers due to lack of awareness: You already know that there is a social blind spot when it comes to the value of sleep. On top of this, you may have lawmakers, community leaders, celebrities, and other highly visible people out in the world sharing messages that contradict your pro-sleep efforts, such as “I’ll sleep when I’m dead,” or “I don’t need to sleep eight hours,” or “Sleep is for the lazy.” We have come a long way, and there are great spokespersons who persist on our behalf, but we still have much work to do.

SO WHY BOTHER BEING A SLEEP HEALTH ACTIVIST?

Ask yourself why you want to do the work. Are you okay serving as a volunteer, without expectation of reward?

Not everyone is cut out to be an activist, but for those who answer its siren call, activism is typically its own best reward because of the sense of fulfillment and achievement it provides. Every person you reach, whose life you can change for the better, is a huge reward!

25 WAYS TO BE A SLEEP HEALTH ACTIVIST

If you are still driven to become a sleep health activist, here are more than two dozen ways you can achieve this goal or dream.

Some are easy, simple, low-cost and low-risk approaches, while others demand you be “all in.” There’s plenty of work to do at every level.

EFFORTS AT THE HIGHEST LEVEL

1. Drowsy driving legislation. Look at your local and state governments to see what laws are on the books for drowsy driving. See also what public safety regulations are in place as it pertains to screening transportation workers for sleep apnea. If you live in a state where marijuana is legal (as a medical application, for recreational use, or both), investigate what statutes exist which consider the ramifications of marijuana use on vehicle operation as it relates to drowsy driving. If you live in a community where opioid use is rampant, check out drugged driving laws (if they exist). In any of these situations, lobbyists at every level are needed to push through important regulations and laws. Your unique perspective as a shift worker and sleep technologist is invaluable in this way. Once you find the cause you’re most aligned with, contact the agencies that are fighting for safer roads and let them know you want to help.

2. Right to sleep for homeless people. The right to sleep is a hot-button civil rights concern that has emerged in the last few years. If you support the idea that the “right to sleep” should be a guaranteed human and civil right for all citizens regardless of their socioeconomic status, look for advocacy groups you can contribute to in some way. Portland hosts Right2DreamToo, for instance, and there are several citizen action groups in California.

3. Organize to help in times of need. When calamity strikes, one of the first things to suffer is sleep. Anxiety and PTSD following disaster, for instance, is a real problem that many aren’t aware of. The efforts of first responders may be tireless, but they are also dangerous if these people don’t get adequate sleep. And in the case of disruptions like hurricanes, fires, floods, tornados, and earthquakes, the loss of CPAP equipment can leave many patients with even worse sleep during the time when they most need it. As an example, the American Sleep Apnea Association recently organized a CPAP relief effort following Hurricane Harvey now dubbed the “A.W.A.K.E. Angels” to put at least 100 machines in the hands of storm refugees by mid September.

4. Be a sleep expert for a chronic illness organization. People with conditions like rheumatoid arthritis and diabetes, or who have survived a stroke, cancer, or traumatic brain injury, suffer mightily with sleep. There are organizations you can join as a sleep expert in some fashion (as speaker, columnist, forum moderator, or educator) to reach out to that special population segment in need of support and advice.

5. Work with VA activists on sleep disorder awareness and benefits politics. Here’s another emerging arena where sleep health activists may become necessary to make real change. Our military personnel are coming home from service with sleep apnea, post-traumatic stress disorder, or traumatic brain injury but are falling through the cracks when it comes to receiving diagnoses, therapies, and reimbursements. Many are being told they had a preexisting condition when they did not have these problems prior to entering the military. These people need a voice so they can get comprehensive help quickly and affordably. HadIt.com strives to give these Americans a voice.

6. Join a national awareness day/week/month campaign and volunteer. You might have other skills besides sleep technology that can help propel an annual campaign (such as event organizing, graphic design, social media marketing). You could help bring an awareness day to life, such as the annual Drowsy Driving Awareness Week following the fall time change, or Restless Legs Awareness Day in September, or the Suddenly Sleepy Narcolepsy Bed Race in March. Pick your favorite sleep disorder; there’s an awareness campaign associated with it! And they usually need people to help get the message out.

COMMUNITY OUTREACH

7. Health fairs. Look for local or regional health fairs, and find out if they have sleep health booths, exhibits, or activities. If not, register to participate in the fair and create an interactive event! If so, ask the sponsor if they need your help. Easy ideas can include Epworth Questionnaire drawings, a fun sleep health quiz, a pillow fight, and a CPAP “petting zoo.”
8. **Launch an A.W.A.K.E. group, or volunteer for one that already exists.** These sleep health support groups sponsored by the ASAA have been useful not only for sleep apnea patients, but for sleep disorder patients at large. Learn more here.

9. **Help a district implement a Start School Later campaign.** Does your local school district have “old school” start times for their tweens and teens? (This means their kids start school before 8:30am.) If so, you may look into organizing a Start School Later effort, or join one if it already exists. Their Healthy Hours program is appreciative of support from knowledgeable sleep health professionals.

10. **Speak at group functions.** Not everybody likes to speak publicly, but if you do, you should have no trouble finding places to speak about sleep health. Targeted groups can include school districts (administrators, teachers, and families); fire departments and hospitals (shift workers, in particular); OB/GYN clinics (for the changing sleep dynamics of pregnant women and women in perimenopause or later); natural medicine clinics (for patients with sleep problems who don’t want to use drugs); college campuses (to discuss sleep hygiene); corporate workplaces (to open up a dialog between management and employees about the measurable costs of sleep deprivation); and senior citizen facilities and residential spaces (to discuss age-related sleep problems). For general public speaking engagements, you might consider contacting the city hall, the public library, the local hospital, or the high school for scaled facility rental. Some communities have science-related “open mic” events where you might be able to pitch a talk about sleep health.

11. **Teach sleep hygiene clinics.** These can be smaller groups where people register and pay a small fee. They can be held at a clinic or hospital or in a private rental space depending upon the size of the group expected.

12. **Join a board.** Local sleep societies have boards that need leadership. National organizations, such as the Circadian Sleep Disorders Network, are always looking for help, and the CSDN is looking right now for new board members (application deadline November 10, 2017). The duties for board members can be minimal or quite extensive, depending on the board and the role, so you’ll need to look into what’s expected and what you can commit to.

13. **Canvass neighborhoods.** Some healthcare organizations need help with dispensing materials for upcoming events (a health fair, an election with a sleep-related policy up for a vote, a fundraiser). You can assist by visiting neighbors, sharing brochures, speaking one-to-one with neighbors, and collecting pledges for events or fundraisers.

14. **Serve a sleep disorder community forum.** You can either sign on as an admin or moderator, or you can simply visit and become active as a patient, if you also have a sleep disorder. These forums are always in need of fresh ideas, voices, and support from healthcare professionals. Make sure you understand HIPAA requirements and practice good privacy protection in these groups, and confirm with your workplace protocols that you are allowed to do so.

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**GET CREATIVE**

15. **Make and sell art with proceeds going to a sleep health organization.** Lots of sleep technologists have creative skills as photographers, musicians, painters, sculptors, or fiber artists. You could make sleep-related artwork, join a local artist’s collective, and sell your work with the promise of donating a portion of your takeaway to a favorite local or national sleep-related nonprofit. People like to buy handmade items when they know they are also supporting a good cause.

16. **Make a music video.** If you’re gifted with the skills to do so, why not? Respiratory therapist Adrian Hunter wrote the music and lyrics to a sleep apnea song, then starred in her own music video! The tune was catchy and the video was instructive. You can tell Adrian had fun, too!

17. **Write about it.** Do you like writing poems, short fiction, or essays? Are you a closet novelist? There has not been enough creative writing published about sleep problems, so your narratives and wordplay could fill that space for people interested in reading about things like sleepwalking, narcolepsy, sleep paralysis, sleep deprivation, insomnia, and other relevant topics. Sometimes it’s the creative narrative that better educates a person, and not the obvious, instructive narrative. November is National Novel Writing Month—why not use that as a motivation to start a Great American Novel about sleep apnea? Nobody else has done it, after all.

18. **Make media.** Similar to Adrian’s experience with the music video, you could creative YouTube videos, memes, GIFs, or infographics that educate and raise awareness about sleep, then share these on social media. They could be straightforward, demonstrative, even funny.

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**KEEPING IT SIMPLE WORKS, TOO**

19. **Teach and practice health literacy.** Nobody can be too health literate, and certainly there’s no way to be overeducated on sleep health. If you work in the sleep lab, you might find it easier to just do your hookup, run the study, then unhook and release the patient. But inside these tasks are lots of opportunities for patient education. Also, patients will find your messages about sleep health and health in general more legitimate if it’s obvious you know they are also supporting a good cause.

20. **Make phone calls and write letters.** These days, there are lots of invitations in social media for people to call their...
leaders (senators, governors, mayors, even the President) to express support for (or against) proposed changes in policies. If you want to help lobbyists do their work but can’t become a lobbyist yourself, you can at least make these phone calls and ask your friends to do the same. This can also be helpful for local events such as a school district’s proposal to change bell times for the older students; your letters and phone calls can be very powerful.

21. **Pledge money.** For some, commitments of time are just out of the question, but they might have some money to donate to worthy sleep-related causes. If writing a check is all you can do, that’s still something really valuable! You can also create mini fundraisers in social media that ask for people to pledge money to organizations you value, or you can pledge money to crowdfunding opportunities if you find sleep-related products worthy of investment.

22. **Volunteer at a sleep conference (for professionals or for patients).** Most often, we think of sleep conferences as serving the interests of sleep healthcare professionals (physicians, nurses, technologists). And these organizations definitely need volunteers! But more patient-centered organizations are emerging which offer conference programming specifically for patients (the Hypersomnia Foundation held a terrific patient-friendly conference, “Beyond Sleepy,” in Boston during the SLEEP meeting last June, in example). They need volunteers, too.

23. **Participate in cohort studies or sleep research studies whenever possible.** If you have a sleep disorder, you may find it fascinating and useful to participate in a research study where you qualify as a subject. ClinicalTrials.gov points you to those studies actively recruiting participants: here are over 400 opportunities that include healthy patients as well. Or, you can join a cohort study of shift workers, or a mobile sleep research study like the SleepHealth Mobile App Study, which collects data from all kinds of people (with or without sleep disorders) in order to track and research sleep health longitudinally. Usually these are free for you to participate in and offer privacy protections. In some cases, you may even receive compensation for your participation.

24. **Social media “slacktivism.”** Let’s face it: Facebook, Twitter, Instagram, LinkedIn and other social media outlets make it super easy to share links to articles and websites that promote quality sleep health behaviors and tips for better sleep and daytime alertness. Any time you find a good resource, share it out in the world as a link. That is a super easy way to keep the topic of “sleep as a part of good health” top of mind in anybody who might be cruising by your public posts.

25. **Use every social encounter as an opportunity to educate about sleep health.** Your enthusiasm about sleep health can be easily shared in lighthearted and sincere conversations: with your golfing buddies, your family members at Thanksgiving, with friends at the local Trivia Night showdown, with your kids and their friends over ice cream at the local parlor. You already know that, as soon as you reveal you work in sleep health, people will come forward to ask about sleep, and many will admit to having a sleep problem. Sometimes it’s these simple, random chats with folks at the grocery checkout counter, the coffee shop, or on the bus that help inspire others to become proactive about their sleep.

**SOME EFFORTS WORTH JOINING**

Plenty of opportunities for sleep health activism already exist. Here are just a handful of efforts that would be happy to hear from you and could use volunteers. In some cases, they may even pay.

- **CPAP forums:** There are several of these for a reason: people need help! You can find the one you like best and volunteer to help moderate or admin. Here are four to consider: ApneaBoard, CPAP Talk, MyApnea.org and SleepHealth Forum

- **Narcolepsy Network:** This organization is actively engaged at the federal level in funding and awareness campaigns to ensure narcolepsy is not ignored as a legitimate healthcare condition.

- **PCORI:** Patient-Centered Outcome Research Institute: For those interested in advocacy for patients of specific chronic illnesses (sleep-related or not), this is a federally mandated organization that matches volunteers to disorders like diabetes, sleep apnea, multiple sclerosis, stroke, and more. PCORNet is the branch involved in patient-centered clinical research.

- **PatientsLikeMe.org:** This patient advocacy publication might be a great place to get your feet wet if you are interested in writing about sleep health as a patient. You may also be interested in pitching ideas to health- and patient-centric curators such as HealthUnion.com, BioNewsServices, and HealthCentral, which also have forums you might be able to assist with.

- **SleepyHeadCENTRAL:** This sleep health news and information clearinghouse is always looking for guest bloggers on a variety of sleep health topics.

- **Stanford Sleep and Dreams:** Inspired by Dr. William Dement, one of our first and best sleep health activists, this student-run website is a great place to look for ideas for becoming one.
Screening for obstructive sleep apnea (OSA) can be problematic. For example, polysomnographic data may be insufficient for determining whether a person has OSA if a sensor is dislodged for a substantial amount of time during a home sleep apnea study or if a patient has difficulty sleeping in a strange bed in a sleep laboratory. A simple screening test could be helpful in detecting people who may have undiagnosed OSA. To this end, scientists have investigated several biomarkers (e.g., inflammatory substances, proteins) in the blood of people with OSA with the hope of using them as a screening test. No biomarker has been developed for clinical use. However, a few biomarkers appear to be promising candidates.

During an OSA episode, upper airway structures collapse into the upper airway and obstruct airflow. A person makes increasingly strong respiratory efforts to restore airflow while the blood oxygen level decreases because of the restricted airflow. When the blood oxygen level falls to a certain point, the respiratory center in the brain triggers a brief arousal, during which the person takes deep, quick breaths that restore the blood oxygen level.

The physiological processes occurring during an OSA episode can result in oxidative stress, repeated sympathetic activation, and systemic and vascular inflammation, among other negative effects. For example, the dramatic changes in intrathoracic pressure that occur as a person struggles to breathe and the hypoxia and reoxygenation process that occurs with each OSA episode results in oxidative stress in the lungs (i.e., an imbalance between the production of free radicals [i.e., highly reactive ions] and the ability of lung tissue to counteract or detoxify their harmful effects). Trauma to epithelial upper airway tissues can contribute to systemic inflammation.

Many investigators have focused on using inflammatory substances as biomarkers because people with OSA often have systemic inflammation. For example, an analysis of 30 studies by Rashid Nadeem and colleagues revealed that, compared to people without OSA, people with OSA have higher levels of the inflammatory substances C-reactive protein (CRP), tumor necrosis factor-alpha, certain interleukins (interleukin-6 [IL-6], interleukin-8 [IL-8], interleukin-10 [IL-10]), intercellular adhesion molecule 1, and vascular adhesion molecule 1. Nadeem concluded these substances could be biomarkers to distinguish between people with and without OSA. In a review of studies that focused on OSA-associated biomarkers in adults and children, Graziela De Luca Canto and colleagues found that most studies measured serum levels of candidate biomarkers. Many of the adult studies investigated IL-6, tumor necrosis factor-alpha, and CRP as biomarkers, and generally indicated that IL-6 and IL-10 were good biomarkers for distinguishing between people with and without OSA. By contrast, De Luca Canto found that no specific biomarker was tested in most pediatric studies.

Some scientists have the hope that testing for biomarkers, when developed for clinical use, could be used to distinguish between different phenotypes of OSA (i.e., different forms of the disease). For example, one person with OSA may develop an OSA-related disease (e.g., cardiovascular disease, hypertension, atherosclerosis, coronary artery disease), whereas another person with a similar level of OSA severity may not. Biomarkers that would enable clinicians to identify patients who are more vulnerable to developing OSA-related diseases could help improve treatment outcomes. In a different review, De Luca Canto and colleagues found that most studies that examined the feasibility of using biomarkers to detect OSA-associated diseases revealed that plasma levels of IL-6 and IL-10 are potentially good biomarkers for distinguishing between OSA patients (both adults and children) with OSA-related diseases and without OSA-related diseases.

Many studies investigating OSA and biomarkers have involved a small number of participants. Therefore, Izolde Bouloukaki and colleagues measured the serum levels of the inflammatory biomarkers CRP and fibrinogen in a large sample of OSA patients to investigate whether any correlation existed between these biomarkers and OSA-related diseases. They categorized the patients as having mild OSA, moderate OSA, or severe OSA. Patients with <5 apnea/hypopnea events per hour were the controls. They found that an elevation in the serum level of CRP or fibrinogen was independently correlated with OSA severity. Based on this finding, they proposed that measuring the
blood levels of these biomarkers when patients undergo an initial screening for OSA could be valuable in indicating the presence of subclinical OSA-induced disease (e.g., vascular inflammation) before symptoms appear.

Some recent research has compared the use of a single biomarker versus a combination of biomarkers to identify people with OSA. De Luca Canto and colleagues\textsuperscript{3,6} found that a concurrent elevation in the levels of the proteins kallikrein-1, uromodulin, urocotin-3, and orosomucoid-1 was sufficiently accurate to be a diagnostic test for OSA in children, and that plasma levels of IL-6 and IL-10 plasma are potentially good biomarkers for OSA in adults. In an all-male population, Wesley Fleming and colleagues\textsuperscript{7} measured the levels of the following biomarkers to test the feasibility of using them to screen for OSA: the proteins hemoglobin A1c, CRP, erythropoietin and insulin-like growth factor 1; the metabolite uric acid; the inflammatory substance IL-6; and the hormones cortisol, human growth hormone, prolactin, testosterone, and dehydroepiandrosterone. They found that the concurrent elevation of hemoglobin A1c and CRP levels were predictive of OSA. They further found that a concurrent elevation in the serum levels of hemoglobin A1c, CRP, and erythropoietin, compared to these markers individually, had a high sensitivity (i.e., rate of true-positives) of 85% and specificity (i.e., rate of true-negatives) of 79% for detecting people with moderate to severe OSA. Such findings suggest that using a combination of biomarkers rather than one biomarker may more accurately detect people with OSA.

Some investigators have examined whether substances associated with oxidative stress could be used as biomarkers. One substance is the glycoprotein KL-6, which normally exerts a protective role in the lung by binding to pathogens. It is also elevated when lung tissues experience oxidative stress or injury. Lederer and colleagues\textsuperscript{8} hypothesized that patients with OSA would have increased levels of biomarkers associated with oxidative stress. On comparing the plasma levels of KL-6 in people with and without OSA, they found that the plasma KL-6 levels were higher in people with OSA. Lederer further found that, among people with OSA, plasma KL-6 levels were higher in individuals who had spent a greater amount of time asleep with a blood oxygen saturation level of <90%, or who had a low saturation nadir (i.e., the lowest level the blood oxygen saturation reached during the night), or who had frequent desaturations of >4% during sleep. The increase in the blood levels of KL-6 in OSA patients was modest; however, it was in a range similar to that of patients with acute lung injury. Therefore, Lederer and colleagues propose that increased levels of KL-6 is potentially a biomarker of OSA, and encourage more research for corroboration of their findings.

Biomarkers among children with OSA have not been as extensively studied as in adults. However, in a pediatric study, Rakesh Bhattacharjee and colleagues\textsuperscript{9} examined level of CRP as a biomarker among children who had undergone adenotonsillectomy for OSA. They hypothesized that serum levels of the CRP would be predictive of residual OSA after adenotonsillectomy. The children underwent a polysomnography study before and after the surgery, and the serum CRP levels were measured before and after surgery. Residual OSA was defined as a post-adenotonsillectomy apnea/hypopnea index of >5 events per hour. Before surgery and after surgery, the CRP level was positively correlated with OSA severity. The post-surgery polysomnography studies revealed that 25% of children had residual OSA, and that the post-surgery CRP levels were elevated for children with moderate to severe residual OSA, compared to children with resolved OSA. Bhattacharjee proposed that the CRP level could be useful in predicting residual OSA in children who have undergone adenotonsillectomy.

A screening blood test that detects OSA-related biomarkers could allow more people with undiagnosed OSA to be referred to a sleep center for assessment and treatment of the disorder. In addition, if future studies confirm that certain biomarkers or combinations of biomarkers could distinguish between OSA phenotypes, then treatment could be more individualized for people with OSA. For example, if the CRP level indicates residual OSA in child post-adenotonsillectomy, then a child may undergo another polysomnographic study for further assessment or other strategies for treating their residual OSA such as anti-inflammatory medications.\textsuperscript{10} For now, the prospect of using a blood test to screen people with OSA continues to stimulate research.

REFERENCES


She had danced into the danger zone
When the dancer becomes the dance.
– Flashdance, 1983

Dance marathons captivated popular attention in the United States from the 1920s to the 1950s. These events were examples of competitive sleep deprivation. Contestants, who remained in nearly continuous motion for hundreds or even thousands of hours on the dance floor by forcibly delaying sleep onset, exhibited symptoms of behaviorally induced insufficient sleep syndrome (ISS). Reporters from local dailies who followed these contestants documented irresistible sleep attacks, physical exhaustion and episodes of delusional ideation due to severely restricted rest breaks.

**MOVING IN RHYTHM**

Written records describing the behavioral effects of prolonged, restless dancing actually predate reports of these grueling spectacles of the early twentieth century. Community dancing emerged about 40,000 years ago as a way to strengthen social bonds among pre-historic humans traveling in hunter-gathering societies. Ancient sculptures survive portraying people seemingly engaged in coordinated, rhythmic movements. However, detailed accounts of prolonged community dancing surface later in medieval records from Western Europe. Contemporaneous, eye-witness accounts are significant because they provide glimpses into how symptoms of insufficient sleep from extended periods of strenuous, physical activity were chronicled in the medieval era.

**TROUBLE IN RIVER CITY**

The remarkable dancing plague of Strasbourg is one of the most documented examples of communal choreomania or manic dancing by local residents. By the late medieval era, Strasbourg had evolved into a busy trading center on the Rhine River in the northeastern region of France according to Michigan State University professor, John Waller. Patient zero of the plague was identified as Frau Troffea. Although her solo debut in mid-July of 1518 may have been regarded by passersby as a mild curiosity or perhaps a spontaneous, personal expression; one week later, she was joined by an ensemble cast of 34 neighborhood residents who seemed compelled to follow her lead.

An isolated, choreomaniac outbreak on a narrow city street became a full-on epidemic by the end of August when “400 people… experienced the madness, dancing wildly, uncontrollably around the city.” Reportedly, the plague led to as many as 15 fatalities per day due to exhaustion associated with a lack of adequate rest as well as dehydration from the scorching, mid-summer heat. Bewildered civic leaders consulted with local physicians hoping that they could calm the crowd before a dance fever pandemic plunged the river city into chaos and pandemonium ruled the streets.

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**Fig 1. Engraving by Henricus Hondius II (1573–1610) showing three victims of communal choreomania being restrained by neighbors; in the background, a dancer is sitting near a tree apparently resting. Reproduced from Waller.**

**REG HACKSHAW, EDD**

Reg Hackshaw has over 20 years experience delivering diagnostic and therapeutic services to the sleep deprived community. Currently, he works as a mentor for students enrolled in the PSG Certificate and Associate programs at Thomas Edison State University in Trenton, NJ
CHILLING REMEDIES

Medieval views concerning sleeping and waking behavior were informed by ideas rooted in antiquity. Nearly 2,500 years ago, sleep onset was associated with the cooling of the blood.10 The Classical physician, Hippocrates wrote “when sleep comes upon the body the blood is chilled.” Galen, a Roman-era physician, claimed that a “short sleep which appears sufficient without being really deep” when the cooling nature of the breath interacted with the blood.11-12 Typically, the Hippocratic and Galenic diagnostic approaches evaluated the presenting symptoms, weather conditions, diet and occasionally dreams.13

Strasbourg’s physicians concurred that the footloose frenzy was related to “hot” summer blood that could “overheat the brain causing anger, rashness and madness.”8 However, local officials refused to provide a remedy of soothing refreshments to chill those brains presumably operating in overdrive and facilitate sleep onset among the dancers. Their solution was to work the crowd to the point of physical exhaustion by relocating them to an open-air performance space; hired musicians kept the entranced dancers moving to the hypnotic rhythm of drums and tambourines.8

To Be Continued…

REFERENCES:

Jeremy T. Jones, RPSGT, is an executive board member with the Kentucky Sleep Society. He is an analyst, patient educator specializing in PAP therapy compliance, home sleep apnea testing (HSAT) and sleep diagnostic data interpretation at Hardin.

When I was young I wanted to grow up to be: A band director or a pilot.

I decided to become a sleep technologist because: After student teaching and realizing that being a band director was not for me, I accompanied my dad to a sleep study and I was fascinated by all of the wires and wanted to know how it all worked and found a Polysomnography program at a nearby college.

I got my first job in sleep technology at: Upon completing the Polysomnography program in 2012 I was hired by hospital about 15 minutes from where my wife and I just bought a house. I still work for the same Hospital Sleep Center, where we have six beds and six physicians. My schedule is typically filled with analyzing studies, both in-lab and HSATs; and one day a week I have a patient education clinic where I see patients who are having trouble adhering to their PAP therapy.

I became an AAST member because: The role of a sleep professional, regardless of title or profession, is to provide patients with the highest quality of care possible. In order to do that, we must constantly be advancing our own knowledge whether by webinars or in-person meetings/conferences as sleep as a field is always changing. National and regional organizations play a crucial part in giving us all the opportunity to learn by providing high quality information.

The person who has had the greatest influence on my career is: I would have to say two people have greatly influenced me in my career path. Brandon Peters, my first clinical preceptor, and Kathryn Hansen who was one of my professors. It is so important to have colleagues to which you can turn because none of us have all the answers. However, by coming together we can all be rewarded, patients included.

The most challenging part of my profession is: Too often I feel that the word ‘challenging’ is taken in a negative way. Instead, we need to view challenges as opportunities to grow. When I started in 2012 on night shift my challenge was staying awake without drinking too much Mountain Dew. Now, my challenge is how do I continue to advance myself in a career where I am already on day shift analyzing studies? Where do I go from here? Well, the answer is to have an open mind and always look forward for ways to advance yourself. Thinking outside the box has been very important for me and my career adding credentials and learning new skills makes you more marketable.

The thing I like the most about my profession is: Making a difference in a patient’s quality of life. When I have someone with severe sleep apnea that is non-adherent to their therapy they feel awful, tired, irritable…you name it. Spending time with a patient and letting them know you care and that they can indeed feel better, and seeing the progress of the patient when the physician sees them in follow up makes me feel like I am in the right field.

The food I’m most likely to snack on while working is: I try to make my scone or smoothie from breakfast last until lunch because it’s probably chocolate and delicious.

For fun on days off from work I like to: Spend time at the lake fishing or playing music.

My favorite TV show is: Gotham or Bob’s Burgers.

My favorite singer or musical group is: Here Come The Mummies.

The website I visit most often is: Kentucky Sports Radio, Musician’s Friend or Facebook.

The person I would like to meet is: Chuck Leavell, keyboards and vocalist with The Allman Brothers Band; The Rolling Stones; David Gilmour; John Mayer; The Black Crowes; Eric Clapton and George Harrison.

The biggest change I have seen in the profession since I started is: The rise of social media and how it can be used to reach the public to advocate for sleep hygiene and sleep testing. Sleep professionals must begin harnessing this ever expanding platform to their advantage.

Words of advice I have for people who are new to the profession are: Keep an open mind, you are not relegated to only being a “sleep tech”. Always do what you can to be at the cutting edge of the field. Never be afraid to put yourself out there.

My professional goals for the next five years are: Continuing to develop my patient education program. Expanding the use of social media as a platform to advocate for quality sleep education. Attending more national sleep education courses and conferences to learn from people outside my region.

Sleep is: The straw that stirs the drink of life.
$10 CECs are Back

Through the end of 2018, take advantage of this member-only opportunity to purchase unlimited $10 CEC modules.

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Introducing a newsfeed to update members on the current regulatory standards affecting sleep disorder programs.

During my travels to many state sleep society meetings this last year I am getting frequent questions on the recent LCD (Local Coverage Determination) changes which may impact a facilities’ ability to bill for Medicare Part B sleep services.

A Medicare Administrative Contractors (MAC) is a private health care insurer that has been awarded a geographic jurisdiction to process Medicare Part A and Part B (A/B) medical claims or Durable Medical Equipment (DME) claims for Medicare Fee-For-Service (FFS) beneficiaries. Currently, there are three MACs that have recently implemented this change and there is industry speculation that other MACs will follow suit.

The Joint Commission (TJC) has put together an easy to read fact sheet on these affected markets. Here is a review of the LCD’s that have been changed recently:

1. **Wisconsin Physician Services (WPS)** impacts providers located in Jurisdiction 5 (Indiana, Iowa, Kansas, Michigan, Missouri, and Nebraska) and Jurisdiction 8 (Indiana and Michigan) that bill Medicare Part B for polysomnography and other diagnostic sleep studies (effective February 16, 2017).

2. **CGS** impacts providers located in Jurisdiction 15 (Ohio and Kentucky) that bill Medicare Part B for polysomnography and other diagnostic sleep studies (effective March 6, 2017).


The LCD states clearly the credentialing criteria:

- The sleep facility accreditation must be from the American Academy of Sleep Medicine (AASM), inpatient or outpatient;
- **The Joint Commission** (formerly the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) sleep specific accreditation for ambulatory care sleep centers;
- **Accreditation Commission for Health Care** (ACHC).

In summary, a TJC Hospital Accreditation Program will not currently satisfy the requirements of WPS, Noridian and CGS. While Joint Commission’s Hospital Accreditation was previously sufficient, it no longer meets the LCD requirements. Hospitals as well as other facilities billing Part B for sleep services will need to obtain a sleep specific accreditation from one of the approved accreditors listed in the LCD. Both hospital and non-hospital sleep centers within the impacted jurisdictions should review their current accreditation status and confirm whether or not they meet the new accreditation guidelines.

What can you do to keep current on the LCD establishing standards for your facility? The Medicare Coverage Database contains the LCDs in an easy to search platform. Go to www.cms.gov/medicare-coverage-database/. You can do a quick search by entering your LCD document ID or by searching LCD documents in your state using the key words sleep study or 95810 and searching by type.

The AAST is currently developing an interactive state map to help you with your search, and to give you easy access to regulatory standards affecting sleep programs. In a future column, we will discuss credentialing requirements for medical and technical personnel in the sleep center.
FROM THE CHAIRS
By Sean Gipson, RPSGT; Sherri Hanson, RPSGT, RST; Steven Lenik, RPSGT, CCSH; Brandon Butters, RPSGT; Laree Fordyce, RPSGT, CCRP, CCSH; and Roxanne Taylor, RPSGT, BA, RST

Exciting things are in store for AAST in 2018! From programs to education to events, there will be many tools and resources at the disposal of sleep professionals going forward. We caught up with the six chairs of the various AAST committees and asked them to describe what members should be most looking forward to in the year ahead with regards to their respective committees. Here is what they told us:

The Regulatory & Legislative Advisory Committee (RLAC) worked hard throughout 2017 in building tools and ideas to making the AAST more visible and opening new ways to communicate in every state. In 2018 the membership of the AAST will see some of those tools coming to light with things like our interactive map of the United States. This map will allow members to click on their respective state and see all the current legislative requirements and news for their areas. It also allows them to plan future moves and have a one stop shop to allow them to plan and see what legislative material such as licensure that may be required of them if they have a move in the future.

Lastly, the RLAC committee has taken in the former Speaker’s Bureau, setting up qualified speakers in our database who would be available for state and regional sleep meetings. This was in response to listening to our members and hearing their needs for tools just like these. We are excited to be continuing to do the same with 2018 and to have our eyes and ears open for you.

Sean Gipson, RPSGT
Regulatory & Legislative Advisory Committee

As our field matures, education is forefront in importance. The CEC approval committee is dedicated to assuring quality educational programs are available to meet the needs of our growing profession. There are currently more credentials, equipment, modalities, responsibilities and duties for sleep technologists then there have ever been before. I look forward to maximizing opportunities for technologists to learn and practice the skills they will need to confront the future.

Steven Lenik, RPSGT, CCSH
CEC Accreditation Committee

As far as the EPC, we are looking forward to coming out with some products that will be of use to all of members. We are reviewing our current products and updating them to the most current references. Two of our current projects are creating PAP titration case studies and developing questions for our “Question of the week” feature. In 2018 the EPC is also looking to see how we can use technology to better deliver and create a more interactive environment for our members and brainstorm some ideas for future products.

Brandon Butters, RPSGT
Educational Products Committee

For 2018, I am looking forward to our annual meeting. Also, to collaborating with other sleep societies and programs to provide better training and education in our sleep profession.

Laree Fordyce, RPSGT, CCRP, CCSH
Clinical Sleep Educator Program Committee

There are many new and exciting projects on the horizon for the SAG Committee and a great group of individuals with vast experience working on these projects. A couple of the projects we are working on are both end-tidal and transcutaneous CO2 technical guidelines and core competencies. In addition, another important project we will be working on is a technical guideline and competency for proper medical documentation.

Roxanne Taylor, RPSGT, BA, RST
Standards and Guidelines Committee
THE VALUE OF AAST MEMBERSHIP: A HISTORICAL PERSPECTIVE

By Kimberly Trotter, MA, RPSGT

When I started in this field over 30 years ago, I was very young and knew that I wanted to make sleep technology my career. I was getting my degree in psychology at Sacramento State and decided to take a tour of the Stanford Sleep Lab. I figured, if you are going to get information and network, why not start from the top, so I met with Sharon Keenan, who was the current President of APT (Association of Polysomnographic Technologists, now known as AAST). She was so kind and open to me asking all kinds of career questions. She recommended I go to a sleep lab in Sacramento and take a tour, which I did, and that was my first job as a sleep technologist.

My first sleep meeting was the APSS meeting in San Francisco in 1987. Everything was so new, and the field was still so small. I don’t recall if there was a vendor hall, or if there was a separate sleep tech meeting, but I do remember going to a few research sessions and meeting a few techs and docs. I did some networking in both Sacramento, where I worked, and in the Bay Area and met some really great techs! My goal was to network and get to know a lot of techs and advance in this field, which the AAST has allowed me to do.

I had such a great time at that first meeting that I decided I would attend them every year, and I haven’t missed one in the 30 years I’ve been in this field. As a night tech, I didn’t get any educational leave or financial support to attend the meetings, so I just took vacation to go to the meetings, and meeting a few techs and docs. I did some networking in both Sacramento, where I worked, and in the Bay Area and met some really great techs! My goal was to network and get to know a lot of techs and advance in this field, which the AAST has allowed me to do.

The San Diego meeting the following year in 1988 was a blast! I met a lot of people that I still talk to today. As the years went by, I decided to contribute as a board member back in the late 90s. I’ve always loved writing, so I volunteered to write for the A2 Zzz magazine and contributed many articles. I was on the Education Committee and facilitated the making of educational videos for the Product Committee. It has been very rewarding volunteering for various committees and so easy to do. It is one of the best ways to not only network closely with other sleep techs, but to also give back to the organization.

Going to the AAST meeting annually is always a highlight for me. Seeing the techs I met in previous years felt like a reunion of sorts. Learning from the techs that were much more advanced and had been in the field longer than me was a treat!

Some of the meetings in the past had different events that allowed techs to socialize and learn. We had a few meetings that had a Snooze Bowl; a game show made up of teams that were asked sleep-related questions for points. We have also had a silent auction a few times, which was also fun. We now have Blues Night, which is made up of sleep techs who get together once per year and play some awesome blues. I like the meetings taking place in different regions, which allows for exploration of new places and meeting different techs.

Highlights for me included Orlando, New Orleans, Chicago and Philadelphia, in which there was an event with a psychiatrist/pianist who played and talked about the mental state of the composers, and Washington D.C., where we lobbied Washington staffers and representatives on behalf of funding for sleep.

I can’t imagine not being involved in the AAST as it has given me a lot: education, networking, colleagues and friendships.

DECEMBER 2017: FROM THE BOARD OF REGISTERED POLYSOMNOGRAPHIC TECHNOLOGISTS

RPSGT EXAM UPDATE

In an effort to offset rising costs in the design, development and delivery of the RPSGT examination, a new, shorter version of the exam went into effect Sept. 1, 2017. Specifically:

• The new version of the RPSGT exam consists of 175 questions, rather than 200
• Candidates will have up to three hours to complete the exam

In addition, all items on the BRPT exams (CPSGT, RPSGT and CCSH) will be referenced to version 2.4 of the AASM Manual for the Scoring of Sleep and Associated Events. Go to: www.brpt.org/default.asp?contentID=33 for eligibility requirements, candidate application information, a handbook, a study guide, practice exams and more!

NCCA ACCREDITATION

The RPSGT credential is accredited by the National Commission for Certifying Agencies (NCCA), confirming it complies with NCCAs' stringent standards for a professional certification program. Accreditation validates the integrity of the RPSGT program and is a mark of quality. Every five years, the BRPT must apply to have the credential reaccredited. The BRPT is pleased to report the RPSGT credential recently received its accreditation for the next five years.

WE’RE WORKING ON A NEW WEBSITE, SEND US A PHOTO!

We’re working on a brand new website and would like to include real photos — photos of sleep technologists on the job, with colleagues showcasing what you do every day.

If interested, please send a high-resolution photo of yourself: at least 800KB in size in one of the following formats JPEG, PDF, TIFF, PNG. Photos can be emailed to info@brpt.org with the subject line: Sleep Technologist Photo. Be sure to include your full name giving us permission to use your photo on the BRPT website.