Behavioral Sleep Medicine


Christina S. McCrae a, Daniel J. Taylor b, Michael T. Smith c & Michael L. Perlis d

a Department of Clinical and Health Psychology, University of Florida
b Department of Psychology, University of North Texas
c Department of Psychiatry and Behavioral Sciences, Johns Hopkins University
d Department of Psychiatry, University of Pennsylvania

Published online: 29 Mar 2010.

To cite this article: Christina S. McCrae, Daniel J. Taylor, Michael T. Smith & Michael L. Perlis (2010) The Future of Behavioral Sleep Medicine: A Report on the Presentations Given at the Ponte Vedra Behavioral Sleep Medicine Consensus Conference, March 27-29, 2009, Behavioral Sleep Medicine, 8:2, 74-89, DOI: 10.1080/15402001003622792

To link to this article: http://dx.doi.org/10.1080/15402001003622792

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

Christina S. McCrae  
*Department of Clinical and Health Psychology*  
*University of Florida*

Daniel J. Taylor  
*Department of Psychology*  
*University of North Texas*

Michael T. Smith  
*Department of Psychiatry and Behavioral Sciences*  
*Johns Hopkins University*

Michael L. Perlis  
*Department of Psychiatry*  
*University of Pennsylvania*

A major goal of the Behavioral Sleep Medicine Consensus Conference held in Ponte Vedra, Florida on March 27 through 29, 2009 was to have 15 key opinion leaders provide the latest information on their areas of expertise. Those leaders represented the breadth of the behavioral sleep medicine field (pediatrics, adults, insomnia, PAP adherence, and circadian rhythm disorders) and included clinicians and researchers from a variety of settings (academia, private practice, the military, and primary care). The presentations highlighted the milestones already achieved by the field (critical mass, solid empirical base, 30+ training programs, certification, dedicated journal, and dedicated textbook), as well as important future directions (more clinical research, public relations campaigns, training, and reimbursement).

The Behavioral Sleep Medicine Consensus Conference held in Ponte Vedra, Florida on March 27 through 29, 2009 had two main goals. First, to achieve consensus on the major issues pertaining
to the development of the field (e.g., Should a new society be formed?, Who should be eligible for the Behavioral Sleep Medicine Exam?, etc.). Second, to have key opinion leaders provide the latest information on their area of expertise within the field. Detailed information on the “consensus” aspect of the conference is reported in a companion article in this issue (see Taylor, Perlis, McCrae, & Smith, this issue). This article focuses on the invited presentations. Fifteen key opinion leaders were invited to present at the conference. Taken together, they represented the breadth of the behavioral sleep medicine (BSM) field (e.g., pediatrics, adults, insomnia, PAP adherence, and circadian rhythm disorders) and included clinicians and researchers from a variety of settings (e.g., academia, private practice, the military, and primary care). Each speaker was asked to provide an update on the current status of research and clinical practice in their area of expertise and an overview of what they viewed as the most important foci for future development in that area. Due to space limitations, a full reproduction of each presentation is not feasible. Instead, this article provides a summary of the “major” points covered in each presentation. In order to accomplish this, each speaker was asked to provide bullet points that summarize the current status of their area (“where we are”) and foci for future development (“where we need to go”). Those summaries are presented below in the order in which the presentations took place during the conference (for a complete reproduction of the conference schedule, see Taylor et al., this issue).

CONFERENCE PRESENTATIONS SYNOPSIS

Friday, March 27, 2009

8:15–9:00 a.m.: The History of Behavioral Sleep Medicine

Michael Perlis, PhD
Associate Professor of Psychiatry
Director, Penn Behavioral Sleep Medicine Program
University of Pennsylvania, Philadelphia

Clinical overview

- 1980s: First generation of RCTs conducted on CBT–I.
- 1990s: Development of new BSM treatments for DXs other than insomnia.
- 2000s: Dissolution of the concept of secondary insomnia and advances in cognitive therapy.

Political overview

- 2000: BSM Committee formed.
- 2000s: BSM textbook and journal, BSM accreditation/certification, Ponte Vedra Conference.

References. See Perlis and Smith (2008); Pigeon, Crabtree, and Scherer (2007); and Stepanski and Perlis (2000).
9:00–10:00 a.m.: Next Generation Treatments for Insomnia: Combined Therapies and Beyond

Charles Morin, PhD
Professor of Psychology
Laval University, Sainte-Foy, Quebec, Canada

Where we are

- CBT is efficacious and produces sustained improvements over time, it is well accepted by patients, and there is relatively few (if any) adverse effects.
- CBT is effective for both primary and comorbid (pain, cancer, and depression) insomnias, with a stronger evidence base for the primary subtype.
- CBT is effective for both younger and older adults.
- CBT is underutilized in clinical practice; important barriers to treatment include perception that CBT is time-consuming and can only be implemented by specialists, limited access to CBT therapists, and limited reimbursement.
- There is no contraindication to using CBT for treating insomnia, but some cautions may be necessary with some specific procedures (sleep restriction) with specific patient populations (seizure disorders, bipolar disorder, patients with parasomnias, etc.).

Where we need to go

- Need to continue developing and validating cost-effective treatment implementation models—abbreviated face-to-face therapy, group therapy, Internet, video, and self-help written materials.
- Need to develop and validate optimal treatment algorithms (with and without medication) for chronic insomnia, and need to determine the following: What should be our first-line therapy? What should be the second-stage therapy for those who fail to respond to initial therapy?
- Clinical research more focused on at-risk populations—that is, older adults, patients with comorbid medical (pain, cancer, and TBI) and psychological disorders (MDD, GAD, and bipolar disorder).
- Need to develop more efficient dissemination methods of CBT skills, not only targeted at psychologists, but also at other mental health practitioners; also need to have better incentives for clinicians to use CBT in their practices; and may need to start doing some public relations-type work to promote CBT–I in the general population.
- Need to better document cost-benefits and cost-effectiveness of CBT–I to convince patients, primary care providers, and third-party payers of the economical gains associated with insomnia treatment.

10:15–11:15 a.m.: Use of Actigraphy in the Diagnosis and Treatment of Sleep Disorders

Kenneth Lichstein, PhD, CBSM
Professor of Psychology
Where we are

- As evidenced by published research using actigraphy, this is a popular and widely used instrument.
- Validation studies strongly recommend using actigraphy to monitor normal sleep.
- Validation studies support the use of actigraphy with insomnia patients, but there is a tendency for actigraphy to over-score sleep in this population.
- Actigraphy to assess periodic limb movements is well established.
- Actigraphy to assess infants’ and children’s sleep is well established.

Where we need to go

- The failure of insurers to reimburse for actigraphy is a major obstacle to wide clinical use.
- Standardization of scoring algorithms across manufacturers would greatly further wide use.
- Standardization of core actigraphy hardware across manufactures would greatly further wide use.
- There is good potential for actigraphy use in situations where the patient is impaired (e.g., intensive care or dementia).

References. See Ancoli-Israel et al. (2003), Kushida et al. (2001), and Lichstein et al. (2006).
Where we need to go

- We need knowledge of the most efficient pattern and duration of bright light exposure for phase shifting.
- We need knowledge of the most efficient maintenance treatments using bright light, exogenous melatonin, or both.
- We need methods to improve compliance to bright light treatment (compliance may improve once we answer the first two bulleted items).
- We need confidence that melatonin can be used to safely treat vulnerable populations, such as children, adolescents, and the elderly.
- We need to develop reliable and valid methods for at-home circadian phase assessments.

References. See Burgess and Reid (2009) and Reid and Burgess (2005).

1:15–2:15 p.m.: Behavioral Interventions for Sleep Apnea and PAP Adherence

Carl Stepnowsky, PhD
Assistant Professor of Medicine
University of California, San Diego
VA San Diego Healthcare System

Where we are

- Initially, the majority of patients accept CPAP therapy, but at one year, less than one half of patients continue to use CPAP.
- Adherence is established early in the process, but needs to be monitored over time.
- No set of factors exist at the time of treatment initialization that help us identify who will or will not be adherent with CPAP.
- Mechanical improvements clearly have a role for comfort, but do not appear to be independently related to adherence.
- Behavioral interventions (motivational enhancement, CBT, and self-management training) show promise, but additional research is needed.

Where we need to go

- We need to further explore the role of patient education in order to determine how education is best accomplished and how to best measure its impact.
- We need to explore the use of the Chronic Care Model as an overarching framework and to focus on the idea of patient-centered, collaborative care.
- We need to examine the role of health information technology. Specifically, we need to take advantage of objectively measured CPAP data.
- Further research is needed to better understand appropriate CPAP “dose,” patterns of adherence and their correlates, and determinants of adherence.
- Briefer interventions need to be evaluated, which can be better implemented in our health care system.
2:15–3:15 p.m.: Treating Sleep Disturbances in the Context of Post-Traumatic Stress Disorder

Richard Ross, MD
Professor of Psychiatry
University of Pennsylvania
Department of Veterans Affairs Medical Center, Philadelphia

Where we are

- PTSD is the most common military service-related mental health diagnosis.
- Insomnia and repetitive, distressing dreams within one month of trauma are associated with the development of PTSD.
- Polysomnographic abnormalities associated with PTSD include greater REM density, more Stage N1, and less Stage N3.
- PTSD has both environmental and genetic components.
- Tricyclic antidepressants and monoamine oxidase inhibitors provide effective pharmacotherapy for PTSD.
- Imaging studies suggest hippocampal, medial prefrontal cortex, and amygdalar involvement in PTSD.
- The first RCT to test imagery rehearsal (IR) in a group setting against an active psychotherapy comparison condition with severe, chronic PTSD and related nightmares found little to no treatment differences on primary and secondary outcomes.

Where we need to go

- Research should be undertaken to explore whether some veterans respond better to IR therapy than others (i.e., Do those with perpetrator-type nightmares or guilt and shame responses benefit less?).

3:30–4:15 p.m.: Treating Pediatric Sleep Disorders I: Current Approaches

Jodi Mindell, PhD
Professor of Psychology
Director, Graduate Program in Psychology
Saint Joseph’s University, Philadelphia

Where we are

- Psychologists play an important role in pediatric sleep centers.
- Behavioral insomnia of childhood is the most common sleep problem seen in infants and toddlers.
- Behavioral treatment of bedtime problems and night wakings in infants and young children produces reliable and durable change in 80% of children.
- The overwhelming majority (94%) of pediatric sleep treatment studies report intervention was efficacious.
- Behavioral treatments that are supported by empirical evidence (Sackett criteria) include unmodified extinction, graduated extinction, and preventive parent education.
Where we need to go

- Future research needs to focus on long-term outcomes of behaviorally based treatments for infant and toddler sleep disturbances.
- We need to focus on education of parents and health-related providers to establish positive sleep habits from an early age and prevent development of sleep problems.
- Endeavours are needed to understand behavioral treatments within cross-cultural contexts.
- We need better diagnostic definitions of behavioral insomnia of childhood that are empirically based.

References. See Mindell, Kuhn, Lewin, Meltzer, and Sadeh (2006); and Morgenthaler et al. (2006).

4:15–5:00 p.m.: Treating Pediatric Sleep Disorders II: Future Directions

Judith Owens, MD, MPH
Associate Professor of Pediatrics
Brown University
Director, Pediatric Sleep Disorders Center
Rhode Island Hospital, Providence

Where we are

- There are currently no sleep medications labeled for use in children by the FDA.
- There is still much we do not know about pediatric insomnia, including its etiology, risk factors and protective factors, role of genetics, prevalence and natural history, and role of comorbid sleep disorders.
- We also do not know the efficacy of various prevention strategies or optimal treatment modalities for insomnia in children.
- There is still much we do not know about the outcomes of childhood insomnia, such as effects on neuroendocrine systems and metabolic pathways, neurocognitive deficits, functional consequences related to learning, academic performance, family and peer relationships, role of sleep problems in emerging psychiatric problems, and public health care burden related to health care costs and lost productivity of both patients and caregivers.

Where we need to go

- We need a comprehensive nosology to describe and categorize the various types of pediatric insomnia for both clinical and research purposes.
- We need classification systems that accurately capture both the similarities and distinctions between adult and pediatric insomnia and that differentiate normal developmental variation from “pathology” across the age spectrum.
- We need evidence-based clinical screening and evaluation tools for insomnia in children, which are easily adapted to primary care and outpatient mental health settings.
- We need educational interventions for caregivers and providers targeted at raising awareness of the significance of pediatric insomnia.
• We need longitudinal, prospective studies with large, multi-site populations; standardized screening and assessment batteries; and validated, developmentally appropriate, cost-effective outcome measures.

References. See Morgenthaler et al. (2006) and Owens (2009).

Saturday, March 28, 2009
8:00–8:30 a.m.: Values and Future Directions of the American Board of Professional Psychology: How Might Behavioral Sleep Medicine Be Incorporated as a Specialty or Subspecialty?
Christine Maguth Nezu, PhD, ABPP
President, American Board of Professional Psychology
Professor of Psychology and Medicine
Director, Psychology Masters Programs
Drexel University, Philadelphia

Where we are
• Board certification is important to protect the public and promote the profession of psychology.
• American Board of Professional Psychology (ABPP) is the gold standard for board certification in psychology.
• ABPP will continue to be at the forefront of the specialty competency board certification in professional psychology.
• ABPP is a large umbrella for psychology specialties.
• ABPP subspecialties offer exciting new opportunities for current ABPP Boards (13 at present).

Where we need to go (How can Behavioral Sleep Medicine fit with ABPP?)
• BSM may seek ABPP as either a specialty or subspecialty.
• There are currently no ABPP subspecialties, because this is a new process for ABPP.
• Current specialty areas relevant to BSM include clinical, cognitive–behavioral, clinical neuropsychology, clinical child, rehabilitation, and clinical health.


8:30–9:00 a.m.: Updates on the American Board of Sleep Medicine Behavioral Sleep Medicine Exam: Certification and Eligibility
Christina S. McCrae, PhD, CBSM
Associate Professor, Department of Clinical and Health Psychology
University of Florida, Gainesville
Where we are

- Management of the Behavioral Sleep Medicine Certification Exam transferred from the American Academy of Sleep Medicine (AASM) to the American Board of Sleep Medicine (ABSM) starting with the 2010 exam.
- The 2010 Behavioral Sleep Medicine Exam committee includes Mary Susan Esther, MD, DABSM (President, American Board of Sleep Medicine); Christina S. McCrae, PhD, CBSM (Chair); Wilfred Pigeon, PhD, CBSM; Daniel Buysse, MD; Donna Arand, PhD, CBSM; James Wyatt, PhD, CBSM; Michael Smith, PhD, CBSM; Donald Townsend, PhD, CBSM; Daniel Taylor, PhD, DABSM, CBSM; and Saul Rothenberg, PhD, CBSM.
- Given concerns that previous exams may have placed too much emphasis on concepts of greater relevance to the broader field of sleep medicine rather than behavioral sleep medicine, the content areas covered by the 2010 exam were revised to better reflect the scope of practice of BSM specialists.
- General eligibility requirements for the 2010 examination include the following:\footnote{It is important to note that the education requirements presented at the conference ultimately deviated from those utilized by the 2010 exam. Significant changes to the eligibility requirements were enacted subsequent to the conference. Specifically, the BSM committee decided (with approval by the Board of Directors of the AASM) to limit the educational requirement to doctoral-level degrees (PhD, PsyD). Thus, neither master’s-level practitioners nor physicians were eligible to sit for the 2010 exam. The exam committee decided to restrict physicians from exam eligibility as this policy was consistent with a broader movement toward discipline-specific certification within the AASM. The committee decided to restrict the eligibility of master’s-level practitioners because it did not have enough information regarding either the scope of practice or state licensing laws that would be applicable to the various master’s-level disciplines that practice BSM and that might seek certification. Not doing so may have left the American Board of Sleep Medicine open to potential lawsuits because of clinicians practicing outside their scope of practice while pointing to certification as evidence for their expertise to do so. In addition, the licensing requirement was revised to reflect the need for a valid doctoral license to provide mental health-related clinical services. Previously, the requirement was a license to provide health-related clinical services with no stipulation on the degree level of the license or the need for a mental health focus. This was particularly important, as most of the interventions provided within BSM are considered psychotherapy.}
  a. A master’s degree or equivalent in a health-related field, a doctoral degree or equivalent in a health-related field, or an MD or DO degree (and certification in sleep medicine by the ABSM or ABMS).
  b. Currently valid doctoral license to provide health-related clinical services in the United States or Canada.
  c. Either completion of an AASM-accredited BSM training program or training or experience in the field of BSM consisting of 500 hr.
  d. Signed acknowledgment by a supervisor that the aforementioned requirements have been met.
  e. For the most up-to-date information on the Behavioral Sleep Medicine Exam, please go to the ABSM’s Web site: www.absm.org.

Where we need to go

- Additional research is needed to determine how to best address the issue of certifying master’s-level individuals.
- Given the recent trend toward discipline-specific certification within the field of sleep medicine (e.g., the recent move of the Behavioral Sleep Medicine Exam from the ABM
to the ABMS), there is a need for psychology and other disciplines that practice BSM to explore discipline-specific certification.

- As discussed by Dr. Nezu (see above), certification by the ABPP represents a potential discipline-specific option for psychologists.

11:15–11:45 a.m.: Insufficient Sleep in Adolescents: Neurodevelopmental Outcomes, Public Policy, and Treatment

Mary Carskadon, PhD
Professor of Psychiatry and Human Behavior
Warren Alpert Medical School
Brown University, Providence, Rhode Island

Where we are

- We have a wealth of data on sleep patterns from surveys and polls showing that sleep gets later and shorter across adolescent development.
- The knowledge regarding brain mechanisms regulating sleep and how they change during adolescence has increased greatly in the last decade. The data indicate that circadian phase delays occur across adolescence and that the sleep homeostatic system slows down the accumulation of “sleep pressure” during this same time frame.
- The consequences of sleep loss on performance has been shown in laboratory studies; however, the consequences on grades have been inconsistently reported.
- The National Sleep Foundation 2006 poll found that depressed mood was greater in the adolescents sleeping least.

Where we need to go

- We need to integrate sleep data from teens with other factors that affect their educational attainment, including socioeconomic status.
- We need to formulate strategies for public education and societal interventions to improve sleep in adolescents.
- We need to learn more about individual differences and determine which adolescents are vulnerable or resistant to effects of sleep loss.
- We need to get ahead of the curve as new technologies appear that can further erode adolescent sleep and perhaps provide new pathways for positive intervention.


11:45–12:15 p.m.: Pathophysiology of Pediatric Insomnia: Developing Evidence-Based Clinical Trials

Ronald Dahl, MD
Staunton Professor of Psychiatry and Pediatrics
University of Pittsburgh
Medical Director, Child and Adolescent Sleep, Neurobehavioral Laboratory
Western Psychiatric Institute and Clinic
University of Pittsburgh Medical Center

Where we are

- Sleep is important for healthy development (learning, brain development—plasticity, behavioral and emotional health, and weight and metabolic regulation).
- Large numbers of children and adolescents are getting suboptimal sleep.
- There is a lack of evidence for the long-term, positive impact of pharmacological approaches on the trajectory of sleep. There are also concerns about the safety and efficacy of the long-term effects of pharmacotherapy on the developing brain.
- During adolescence, spiraling interactions between biological changes associated with puberty, social and environmental influences, and habits or patterns impact sleep, leading to vulnerability to serious clinical problems including sleep disorders, anxiety, depression, and obesity.
- Behavioral interventions directed at adolescence that target anxiety, depression, and sleep are particularly important.

Where we need to go

- We need empirically validated behavioral treatments for sleep in youth.
- We need behavioral interventions that recognize the interactions between biology and the other factors described earlier and which target broad, health-relevant issues in development.
- We need behavioral treatments. Although they are challenging and complex, they represent a long-term investment.

1:15–2:15 p.m.: Integrating Behavioral Sleep Medicine Into Primary Care Settings

Jeffrey Goodie, PhD, ABPP
Assistant Professor of Family Medicine
Assistant Professor of Medical and Clinical Psychology
Department of Family Medicine
Uniformed Services University of the Health Sciences, Bethesda, Maryland

Where we are

- Many more patients with sleep problems are seen in primary care environments than tertiary care or specialty sleep clinics.
- A significant percentage of those seen in primary care report sleep problems (e.g., 50% may report occasional insomnia, and 19% report chronic insomnia).
- Medications are the most common intervention for insomnia in primary care.
- There is increasing awareness by the primary care community of effectiveness of behavioral interventions for insomnia.
- We have case-series data that CBT–I can be adapted to the primary care environment.
Where we need to go

- We need to adapt behavioral sleep assessments and interventions so that they can be administered in the fast-paced primary care environment.
- We need to ensure that behavioral health professionals working in primary care environments are trained in CBT–I.
- We need to systematically test whether adapted behavioral sleep interventions are effective in primary care settings.
- We need to evaluate whether behavioral interventions for sleep problems can be effectively delivered by non-behavioral health professionals in primary care (e.g., physicians, nurses, and technicians).
- We need to develop methods to help guide the medical community in the decision of when medication should or should not be used.


Sunday, March 29, 2009

8:30–9:00 a.m.: The Economic Survival of BSM: Billing and Billable Procedures—Private Practice

Ryan Wetzler, PsyD, CBSM
Director, Behavioral Sleep Medicine
Sleep Medicine Specialists
Kentucky Research Group, Louisville

Where we are

- Community awareness of the efficacy and effectiveness of cognitive and behavioral approaches to treating sleep disorders is poor.
- There are currently few trained BSM specialists.
- There is limited recognition of clinical services provided by BSM specialists beyond treating insomnia.
- BSM services are not consistently reimbursed at rates commensurate to other health care services.
- Successful models for billing BSM services are available, yet not accepted in all areas of the country.

Where we need to go

- CBT–I recognized as a first-line treatment for chronic insomnia.
- A well-trained BSM specialist for every accredited sleep disorders center.
- Recognition of BSM as a complementary approach to the full range of sleep disorders.
- Recognition of the value of BSM services by insurance carriers with reimbursement commensurate to medical services.
- Wide dissemination and acceptance of BSM billing procedures among all major insurance carriers.
Where we are

- Poor reimbursement from third-party payors potentially discourages behavioral professionals from entering the field.
- No straightforward means of billing for BSM services using mental health CPT codes.
- Limited awareness about the full range of BSM services.
- Health and behavior codes can be used to bill for BSM services.

Where we need to go

- We need to utilize behavioral exposure and desensitization to simulated polysomnography (PSG) procedures for high-risk patients that have been unsuccessful completing PSG.
- We need to offer assistance with compliance in the sleep laboratory for patients identified as having severe trouble tolerating or complying with PSG procedure.
- We need to seek the ability to bill for actigraphy in the context of clinical care.
- We need evidence-based guidelines.
- We need research evidence demonstrating that BSM leads to improved health outcomes and reduced health care utilization.
- We need government or foundation research and training grants.
- We need to pursue foundation funding for innovative services in high-risk groups (neuromuscular disorders).
- We need to consider if there are services that might be funded through hospital subsidies if services would not otherwise be available to identified populations in need of BSM.

References. See Meltzer, Moore, and Mindell (2008); Miyamoto (2006); and Pigeon et al. (2007).

SUMMARY REMARKS

The Behavioral Sleep Medicine Consensus Conference held in Ponte Vedra, Florida on March 27 through 29, 2009 represents an unprecedented event in the history of the BSM field. Although most BSM experts would likely agree that the field still has a great deal of developing to do, the presentations at the Ponte Vedra conference helped to highlight the significant developments
that have already occurred and to provide a sense of important future directions. In many respects, the field is no longer in its infancy, but has ventured into its toddlerhood as evidenced by the establishment of (a) a “critical mass” within the field—the number of professionals specializing in the field has grown significantly and, importantly, continues to grow; (b) a solid empirical base for many BSM techniques (e.g., CBT-I and CPAP adherence), with evidence continuing to accumulate; (c) over 30 training programs that provide BSM training at the undergraduate, graduate, postdoctoral, or continuing education levels; and (d) a process that allows specialists to earn a CBSM through the ABSM.

The brief overview of the history of BSM presented at the meeting nicely summarized these and other key developments in the field. It also reminded conference attendees that the identification of this collection of research and clinical endeavors as a field or, more appropriately, as a subspecialty of sleep medicine and behavioral medicine, was probably best be traced to the late 1980s to early 1990s. During those years, several major initiatives, all of which embraced the BSM term, were launched, including (a) renaming of the AASM Insomnia Section; (b) creation of a presidential committee; (c) inception of the field’s dedicated journal, Behavioral Sleep Medicine (Taylor & Francis), with Kenneth L. Lichstein, PhD, CBSM as editor; and (d) publication of the field’s dedicated textbook, Treating Sleep Disorders: Principles and Practice of Behavioral Sleep Medicine (Perlis & Lichstein, 2003). The culmination of these and other events have lead to a strong sense of identity within the field.

The information provided in the conference presentations highlighted the areas of BSM that are mature and well established, as well as those that are still developing. They also offer some guidance regarding which areas should be targeted for future growth and some of the obstacles to that growth.

Cognitive–behavioral treatment for insomnia (CBT–I) probably best exemplifies an area of BSM that is mature and well established, as evidence supports its efficaciousness and effectiveness for both primary and comorbid insomnias (pain, cancer, and depression). Despite this, we need to continue to work on methods for implementing and disseminating CBT–I and, more importantly, we need to demonstrate its cost–benefits and cost-effectiveness. Actigraphy is well established for assessing periodic limb movements and infant and children’s sleep, but tends to over score sleep in insomnia patients. The use of bright light and melatonin to phase shift the human circadian clock are well understood, but how best to utilize these to treat circadian rhythm disorders is less well understood. We recognize that CPAP adherence is established early in treatment, but optimal strategies for intervening to improve adherence need to be identified. Behavioral interventions (CBT, motivational enhancement, and self-management training) show promise for treating CPAP adherence, but need further study and translation into health care systems. Likewise, sleep disturbance in PTSD is well recognized but systematic, empirically based treatment remains a challenge.

Pediatric sleep probably best exemplifies the integration of BSM within sleep centers as BSM specialists play an important role in pediatric sleep centers, of which there are unfortunately far too few. Behavioral treatments are well established for bedtime problems and night wakings in infants and young children. However, we need better classification systems that recognize the important distinctions between adult and pediatric insomnia. In terms of adolescent sleep, the negative consequences of poor sleep have been well established; however, the best approach to treatment (likely a behavioral one that targets multiple, related problems such as sleep disorders, anxiety, depression, and obesity) has yet to be identified.
There is recognition that greater integration of BSM in primary care is needed, and it is suggested that BSM practitioners need to recognize that different models for delivering services are needed in the primary care environment (e.g., acting as a consultant to the physician). In addition, there was recognition across areas that reimbursement for BSM services has lagged far behind other developments in the sleep field and represents a major obstacle to future development, dissemination, and integration of BSM into health care. It is particularly important to point out that getting reimbursed may not be as large an obstacle to the future of the field as is the rate of reimbursement.

Certification is welcomed because it establishes legitimacy for the field and may help to attract future professionals to the field. However, certification is not without controversy, as there are major questions facing the field regarding who is eligible for certification (What level of training is needed?) and whether certification should be discipline specific (Should psychologists seek ABPP certification for the field, etc.?).

To summarize, in many ways the Ponte Vedra conference highlighted the paradox of our field: we have come a long way and yet have not arrived. The central themes across the subspecialty domains are (a) more clinical research is needed; (b) a public relations campaign is needed to inform patients, clinicians (within and outside the broader field of sleep medicine), and payors about the BSM treatments that are available; (c) better and wider dissemination of methods (and related training) is an urgent priority; and (d) reimbursement for services needs to be ironed out so that experts are appropriately remunerated for their services and neophytes are incented to become experts based on the availability of reimbursable work.

Although each of the items on the BSM “to-do list” is daunting, we can be hopeful that establishment of a new BSM society, in strong collaboration with the AASM, will set into play the structures needed to accomplish each of these goals.

ACKNOWLEDGMENTS

“Behavioral Sleep Medicine: A Consensus Conference” was sponsored by the Johns Hopkins University School of Medicine and the Department of Psychiatry and Behavioral Sciences. An unrestricted educational grant in support of this activity was provided by Respironics, Inc. We thank Carolyn Burke, Department of Continuing Medical Education, Johns Hopkins Medical Center; Constantine Lyketsos, MD, Chair, Department of Psychiatry, Johns Hopkins Bayview Medical Center; and Christine A. Mechanik, University of Florida. The following presenters disclosed the existence of a financial interest or other relationship with manufacturers of commercial products discussed in their presentations: Helen Burgess, PhD, consultant—Physician’s Information and Education Resource; Kenneth L. Lichstein, PhD, CBSM, research support—MiniMitter and Respironics, Inc.; Jodi Mindell, PhD, consultant, honorarium, speaker bureau—Johnson’s Baby; Charles Morin, PhD, research support—Sanofi-Aventis, Schering-Plough and consultant—Sanofi-Aventis, Actelion, Sepracor, and Lundbeck; Judith Owens, MD, MPH, research support—Eli Lilly and Boehringer-Ingleheim; consultant—Takeda, Addrenex, Shire, and McNeil; speaker bureau, Johnson & Johnson, and Eli Lilly and other—Select Comfort, Eli Lilly, Respironics, Inc., Shire, and Isis Biopolymer.
REFERENCES


学霸图书馆
www.xuebalib.com

本文献由“学霸图书馆-文献云下载”收集自网络，仅供学习交流使用。

学霸图书馆（www.xuebalib.com）是一个“整合众多图书馆数据库资源，提供一站式文献检索和下载服务”的24小时在线不限IP图书馆。

图书馆致力于便利、促进学习与科研，提供最强文献下载服务。

图书馆导航：
图书馆首页 文献云下载 图书馆入口 外文数据库大全 疑难文献辅助工具