

Nurse Practitioners (NPs) as Cognitive Behavioral Treatment for Insomnia (CBT-I) Providers: An Underutilized Resource

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Abstract

Cognitive Behavioral Therapy for Insomnia (CBT-I) is an effective treatment for chronic insomnia, but it remains underutilized. Lack of appropriately-trained CBT-I providers is a major reason. Nurse Practitioners (NPs) may, in addition to psychologists, be uniquely positioned to fill this role, based not only on their professional training but also given a handful of studies showing these individuals' care outcomes meet or exceed standard outcomes. Questions as to how to attract NPs to the field, credential them, and incorporate them into established practices remain unanswered.

The Scope of the Problem

If safe, effective, non-medication based therapy existed for any chronic disorder affecting up to 1/3 of the population, widespread implementation would be expected. If that disorder resulted in more than \$100 billion in direct and indirect costs [1], foregoing such therapy would seem ill-advised. Yet, such is the case for cognitive behavioral therapy for insomnia (CBT-I). More than three decades of research support its utility in treating chronic insomnia, with several meta-analyses showing both short-term and long-term efficacy [2-5]. One comparative meta-analysis showed that CBT-I is as at least as efficacious as treatment with benzodiazepine receptor agonists [6]. In the 2005 NIH Consensus and State-of the Science Statement, the NIH panel recognized CBT-I as a first-line therapy for insomnia [7]. In 2008, the Chronic Insomnia Task Force of the American Academy of Sleep Medicine published practice guidelines for the treatment of chronic insomnia that confirmed CBT-I and behavioral therapies as first line therapy for primary and comorbid insomnias [8]. Nevertheless, CBT-I is generally underutilized.

There are many possible reasons as to why CBT-I is not prescribed more frequently. They include both patient-centered and systems-based barriers to CBT-I delivery. Some patient-centered issues include: patients' inability to make time for 4-8 sessions lasting 30-60 minutes each, visit costs or insurance co-pays, difficulties maintaining the strict wake/sleep regimen prescribed, the stigma of psychotherapy, and patient desires for a simple pill to "cure" insomnia without behavioral changes. Some systems-based issues include: providers' lack of awareness regarding CBT-I's effectiveness, limitations on physician time and patient visit length typically needed to deliver behavioral therapies, limited availability of CBT-I trained specialists to perform the therapy, and CBT-I insurance coverage difficulties.

How Should CBT-I be Provided?

Despite enormous growth in sleep medicine practices, the substantial increase in the number of Behavioral Sleep Medicine (BSM) training programs, and the establishment of a BSM credentialing process via the American Board of Sleep Medicine (ABSM), the number of certified BSM (CBSM) specialists and/or CBT-I providers remains insufficient. In 2007, less than one hundred PhDs, PsyDs, nurses, and physicians were BSM certified [9]. While these numbers have increased to over 200 [10], the number and access to the certified specialists remains notably inadequate for millions of chronic insomnia patients [11].

How can this supply-and-demand gap be narrowed? There is essentially 3 approaches:

- 1) Minimize or eliminate the need for therapists by encouraging the use of self help approaches including patient manuals and/or web based CBT-I.
- 2) Enable the available clinicians to treat more patients. This could be accomplished by providing CBT-I in group format, by utilizing an abbreviated form of CBT-I (i.e., "BBT-I), and/or by extending the reach of individual clinicians via telemedicine (site to site) or Skype type technology (one to one).
- 3) Broaden the provider base so that clinicians other than Clinical Psychologists provide CBT-I.

Each of these approaches represent possible pathways towards universal coverage (provision of CBT-I) and may, in the end, all be deployed within a stepped care model. For the purposes of the present analysis, we will focus on how to expand the provider base.

Who Should Provide CBT-I?

Identifying potential clinicians who can provide CBT-I, when indicated, is essential. Critical to their effectiveness is recognizing when and when not to proceed with therapy, a key component of BSM education and training. Providers must have reasonable familiarity with sleep medicine differential diagnoses (such as sleep apnea, restless legs syndrome, and other sleep disorders) as well as other comorbid psychological and medical disorders that frequently accompany insomnia. Patients with chronic insomnia often have related but

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separate comorbid sleep, psychiatric, substance, and/or medical disorders which also require identification and treatment.

Some have argued that the contingent of doctoral-level clinicians should be expanded and that this could and should be accomplished by increasing the availability of graduate and post graduate educational offerings. Others have argued that “opening the pipe” in such a manner will not produce the number of clinicians needed in the short or long term, and that the clinician base needs to be expanded to include clinical psychologists currently in practice in other specialty areas and/or master’s level healthcare workers with mental health skills, specific training in CBT-I, and the proviso that care be provided with supervision. With respect to the last consideration, some view supervision as an on-going component of practice (akin to nurse-physician practice agreements) while others view supervision as a training component that is time limited.

Some sleep clinicians propose that CBT-I can be provided successfully by clinicians who are not BSM certified, or that a doctoral level background is not necessary for BSM eligibility or CBT-I delivery. These clinicians believe that those with master’s level background can be equally trained in BSM, particularly in the very specific skill set of CBT-I delivery. The ideal master’s level healthcare workers to fill the gap are nurse practitioners (NPs) [9]. NPs appear strategically positioned for this role for several reasons including their ability to: 1) conduct medical assessments, develop differential diagnoses, and evaluate response to initial treatment; 2) provide care for both general medicine and specialty disorders; 3) conceptualize their assessment and treatment using a biopsychosocial approach which is essential in insomnia evaluation and treatment; and 4) be easily integrated into sleep centers because of their primary care skills and because their care is covered under a medical rather than mental health coverage umbrella.

The sleep community, however, has divided opinions as to whether NPs and other non-doctorate clinicians should be trained or certified to provide CBT-I. Advocates argue that a distinct CBT-I skill set could be delivered without complete BSM training, as long as proper BSM evaluation has been done prior to ordering CBT-I therapy and that supervision by a CBSM is provided on an on-going basis (for either a prescribed training period or for on-going practice). Opponents express concern that appropriate BSM evaluation (before CBT-I) cannot be ensured and that continuing education training is not sufficient to allow for the management of the complex cases that typically present with chronic insomnia. The traditional response to this point of view is that a “stepped care” approach be utilized whereby the NP triages the most complex cases (cases that also present with other medical and/or psychiatric and/or sleep disorders) to doctoral-level credentialed specialists [12].

Beyond the arguments “for and against” NPs having a role in CBT-I delivery is a small evidence base including at least three studies that speak to the potential for NPs to conduct CBT-I. In 2007, Espie et al. showed initial and sustained (6 month) improvements in objective and subjective sleep quality indicators after a course of CBT-I therapy [13]. Providers were primary care NPs who received specialized CBT-I training and ongoing supervision. Jungquist et al. found significant improvements in sleep and chronic pain using Masters-level CBT-I practitioners who received similar training and ongoing supervision [14]. Buysse et al. recently published promising findings in a geriatric population, where a short version of CBT-I (brief behavioral treatment for insomnia; BBTI) provided by NPs produced significant remission in insomnia symptoms up to 6 months after treatment [15]. The studies

referenced above not only demonstrate that NPs can deliver effective CBT-I, but also that general medicine providers (vs. Psychiatric NPs) can do so successfully when provided adequate training and supervision.. Of note, there are no direct studies assessing NP or master’s level versus doctoral-level provider care (MD, PhD, PsyD) in terms of treatment outcomes, patient adherence and retention, and the occurrence of adverse events. Such studies are needed before a decision can be reached regarding unsupervised practice.

How do We Train CBT-I providers?

Although there are similarities between CBT and CBT-I training and practice, CBT-I training and certification is distinct from CBT. General CBT training and certification are traditionally obtained through two pathways: Psychologists through the American Psychological Association credentialed programs (e.g., PhD in Clinical Psychology) and Psychiatrists through the American Psychiatric Association credentialed programs (Psychiatry Residency). Distinct from these CBT training pathways, formal CBT-I training is obtainable within a select few Psychology Internships, Psychiatric Residencies Nursing, and/or Sleep Medicine Fellowship programs. More recently, training is available through SBSM accredited fellowship and mini-fellowship programs, through the Veterans Administration CBT-I dissemination and implementation program (for VA employees only), and through a variety of continuing education (CE)/continuing medical education (CME) offerings through the American Academy of Sleep Medicine, The Society of Behavioral Sleep Medicine, through University-based programs, and finally through private educational offerings (e.g., Sleep Medicine Schools; see Box 1). Burden, in terms of both time and cost, varies greatly among options. Some online courses offer maximum scheduling flexibility (University of Massachusetts), while live CBT-I seminars offer more intensive 2-3 day experiences in various cities (University of Pennsylvania). Training costs vary from free (e.g., within the VA system), to \$200-\$700 for multi-day trainings, to \$1000-\$5000 for mini-fellowships, certificate and diploma programs (See, Box 1).

Eventually, such educational opportunities may not only provide NPs the requisite education to provide CBT-I but also establish eligibility for a BSM credentialing exam offered by the American Board of Sleep Medicine. Potential credentialing pathways could be based on those currently in place for doctoral-level clinicians. NPs would obtain eligibility for the exam through either (1) completion of a BSM-accredited training program (‘standard track’) or (2) demonstration

Overview

SBSM accredited Programs: www.behavioralsleep.org/FellowshipPrograms.aspx

The American Board of Sleep Medicine: www.absm.org/bsmcertification.aspx

Clinician Training

University of Massachusetts: www.umassonline.net/degrees/Online-Graduate-Certificate-Sleep-Disorders-Health-Disease.cfm

University of Pennsylvania: www.med.upenn.edu/cbti/index.html

University of Glasgow: http://www.gla.ac.uk/media/media_145680_en.pdf
The Atlanta School of Sleep Medicine & Technology: www.sleepschool.com

The School of Sleep Medicine: www.sleepedu.net

Sleep School: www.freesleepschool.com

Center for Sleep Counseling Studies: <http://sleepcounseling.org/training-certification-program/overview>

Box 1: Educational and Credentialing Resources.

of significant clinical experience ('alternative track'). Upon providing appropriate documentation of these prerequisites, they could then sit for a standardized BSM licensing examination. This formalized credentialing model could help ensure uniform competence among NP CBT-I providers.

In addition to training established NPs, other approaches are still needed. Nursing programs can help address the shortage of CBT-I providers by increasing access to training. Historically, nursing schools have failed to offer CBT-I training as one of their educational offerings. Development of improved nursing education curricula to address these potential shortcomings began in 2000 and culminated in 2004, with an Association of Professional Sleep Societies Nursing Task Force publishing their "Recommendations for Nursing Education." [16] Undergraduate sleep education and specific sleep training for NP's were encouraged, but CBT-I was not highlighted as an integral part of the training. Including CBT-I training as a regular offering in nursing curricula will allow greater numbers of providers to be trained while improving visibility and awareness of this treatment.

How Should CBT-I Services be Reimbursed?

One final obstacle to increasing the number of CBT-I clinicians is appropriate reimbursement. Despite insurers' recognizing insomnia as a (sleep) medical disorder, they may carve out coverage for CBT-I as a mental health service, leaving the patient in a self-pay situation. When coverage is provided, it is often covered as either a medical or a mental health benefit. In the case of the former, millions of insomnia patients without anxiety, depression, or other psychiatric disorders may be required to see a medical provider who cannot offer CBT-I. In the case of the latter, the patient may be referred to a mental health provider who is trained in CBT but not BSM or CBT-I. Compounding the problem, many sleep centers do not offer CBT-I, partly because they are often credentialed as medical practices without mental health services. As such, these sleep centers are unable to bill insurance companies that follow older coding of insomnia treatment(s) as exclusively mental health disorders. While these reimbursement considerations are daunting, here again, the provision of CBT-I by NPs may represent a solution. Since NPs may have within their scope of practice the provision of both medical and psychiatric services, this could allow CBT-I to be reimbursable when delivered as part of their sleep disorders practice. The NPs' unique position to practice CBT-I, which incorporates both medical and mental health services, may motivate them to seek this additional CBT-I training. Further, sleep and general practices may encourage NPs to pursue this additional training in order to improve patient care and to expand billable services.

Moving Forward

We need multiple pathways for CBT-I training, including expanded offerings within existing nursing, graduate and medical programs, additional post graduate offerings with a special emphasis on both residency and fellowship training, and CE/CME educational offerings. Finally, the success of the Veterans Administration (VA) CBT-I training program has much to teach us. The question moving forward is how to export this level of dissemination from a self contained system like the VA to the open access Health care system that exists throughout the U.S [17].

In sum, our challenge is to increase CBT-I treatment accessibility while maintaining standardization of training and quality in delivery. The major approach to date has been to expand the availability of training opportunities, and to do so across the educational spectrum. The next step is likely to be a vigorous discussion/evaluation about who

can and should provide CBT-I, and under what conditions. The position propounded here is that NPs represent an underutilized resource and should be considered the next professional group to target for the provision of CBT-I. This position is founded not only on "goodness of professional fit" and practical and logistical considerations, but on good preliminary evidence that quality of these individuals' care meets or exceeds standard outcomes [13,15]. What remains for the development of an NP model for CBT-I delivery is: 1) what practice approach to adopt (such as supervised practice vs. independent practice); 2) how to attract NPs to seek out training; and ultimately 3) how to credential these clinicians.

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