

NIH State-of-the-Science Conference on Chronic Insomnia

Regina T. Dolan-Sewell, Ph.D.¹; William T. Riley, Ph.D.¹; Carl E. Hunt, M.D.²

¹National Institute of Mental Health, Bethesda, MD; ²National Center on Sleep Disorders Research, National Heart, Lung and Blood Institute, Bethesda, MD

The NIH State-of-the-Science Conference on Manifestations and Management of Chronic Insomnia in Adults, sponsored by the National Institute of Mental Health (NIMH) and the NIH Office of Medical Applications of Research (OMAR), convened insomnia experts on June 13-15, 2005, to present the latest scientific knowledge on chronic insomnia and its treatment. After considering this scientific evidence, the independent scientific panel released a state-of-the science statement, which is reproduced in this issue of the JCSM¹ and can be downloaded from the Web www.consensus.nih.gov.

This issue of JCSM also includes the abstracts of the conference presentations. These presentations were organized around the following five key questions and were used to help develop the recommendations in the state-of-the science statement: We believe that they will be of additional interest to the readership of the JCSM.

How is Chronic Insomnia Defined, Diagnosed, and Classified, and What is Known about its Etiology?

Recently published Research and Diagnostic Criteria (RDC) for Insomnia Disorder have greatly improved diagnostic clarity, but the need for further clarity in classification subtypes remains. Although there is some support for an etiologic classification system, the term “secondary insomnia” fails to reflect the complex and often difficult to determine causal interplay between insomnia and the comorbid disorder. “Primary insomnia” also suggests a single etiology despite various causal models for the disorder. A number of etiologic models are described in these abstracts including predisposing, precipitating, and perpetuating psychological factors, hyperarousal via corticotrophin-releasing hormone (CRH), circadian dysregulation, and sleep-wake dysregulation via the ventrolateral preoptic nucleus (VLPO) system. These models suggest relevant priorities for future research on the causes and treatments of insomnia.

What are the Prevalence, Natural History, Incidence, and Risk Factors for Chronic Insomnia?

Numerous prevalence studies indicate that approximately 10% of adults have insomnia disorder with approximately 1/3 of adults reporting symptoms of insomnia. In contrast to the prevalence of insomnia, very little is known about its incidence and course. Sleep difficulties are common in childhood, but the developmental course of these difficulties into adulthood remains largely unknown. The incidence, course and risk factors for insomnia

in adulthood also are poorly understood. The paucity of data on the incidence and natural course of insomnia across the lifespan clearly indicates the need for longitudinal studies addressing these questions.

What are the Consequences, Morbidities, Comorbidities, and Public Health Burden Associated with Chronic Insomnia?

The effects of insomnia on quality of life appear to be comparable to those with other chronic illnesses. Consequences of chronic insomnia on job performance include increased errors, inefficiencies, and absenteeism. Insomnia is associated with increased medical complaints, substance use/abuse, medical comorbidities, and increased health care use and costs. Further, insomnia is often comorbid with other psychiatric disorders, and sleep disturbance is a common symptom or associated feature of many psychiatric disorders, particularly depression. Recent research suggests that insomnia not only co-occurs frequently with depression, but also is a risk factor for depression onset and subsequent relapse. More research is needed to better understand the nature of the relationship between insomnia and psychiatric disorders.

What Treatments are Used for the Management of Chronic Insomnia, and What is the Evidence Regarding their Safety, Efficacy, and Effectiveness?

Multi-component cognitive-behavioral treatment (CBT) for insomnia has considerable support for its long-term efficacy and safety. Evidence also supports the efficacy of benzodiazepine and non-benzodiazepine hypnotics. Cognitive and psychomotor impairments, discontinuation effects, and dependence potential limit the long-term use and efficacy of benzodiazepines; however, shorter-acting non-benzodiazepine compounds hold promise for longer-term efficacy with fewer safety and tolerance concerns. A variety of off-label, over-the-counter, and alternative medicine approaches appear to have the most widespread use for the treatment of chronic insomnia despite little evidence supporting their safety or efficacy. The availability and use of safe and efficacious insomnia treatments remains a critical public health issue.

What are the Important Future Directions for Insomnia-Related Research?

Measurement validity studies are needed, particularly of diurnal endpoints such as fatigue, restfulness, daily functioning, and quality of life. Recommended research by the conference panel

also includes studies of genetic predisposition, psychosocial correlates, longitudinal course, effects on occupational and social functioning, long-term treatment efficacy, comparative treatment efficacy, and cost-effectiveness. Physician decision making and dissemination studies also are needed to increase the availability of efficacious treatments for those suffering with insomnia.

REFERENCE

1. NIH state of the science conference statement manifestations and management of chronic insomnia in adults. *J Clin Sleep Med*. 2005;1(4):412-421.