

What is insomnia?

LEDER

MORTEN ENGSTRØM

E-mail: morten.engstrom@ntnu.no

Morten Engstrøm is a senior consultant at the Laboratory for Clinical Neurophysiology, St Olavs Hospital, a researcher at the Norwegian University of Science and Technology, and head of the Norwegian Society of Sleep Medicine.

The author has completed the ICMJE form and declares the following conflicts of interest: He has received lecture fees and travel funding from Philips and Resmed.

The diagnostic criteria for insomnia are changing. It is hard to know for certain whether they now provide a more correct picture of how many people suffer from insomnia.

Insomnia is associated with an increased risk of health problems and often occurs in the wake of health problems (1, 2). People who suffer from insomnia frequently have affective disorders such as anxiety and depression as well (3).

The study by Olufsen et al. recently published in the Journal of the Norwegian Medical Association considers the effect of the change in the criteria for insomnia in the Diagnostic and Statistical Manual of Mental Disorders from DSM-IV to DSM-5 (4). In DSM-5, which came in 2013, non-restorative sleep no longer qualifies for the diagnosis insomnia, as it did previously. The intention underlying this change was to distinguish more clearly between insomnia and other sleep disorders, such as obstructive sleep apnoea. The requirements of difficulty falling asleep, frequent or too early waking three or more times per week, and the daytime consequences thereof remained, but the symptom duration requirement increased from one month to three months. Similar changes are now also notified as taking place in the International Classification of Diseases when ICD-10 is replaced by ICD-11. The introduction of ICD-11 in Norway is to take place relatively soon.

The study by Olufsen et al. is based on a very large number of persons who completed online questionnaires about sleep problems, anxiety and depression in the period 2012–2016. As expected, the study shows a lower prevalence of insomnia according to the DSM-5 criteria than to the DSM-IV criteria, but also a higher percentagewise prevalence of comorbid anxiety and depression.

With typical insomnia, the diagnosis can be made on the basis of the patient's account of the complaint and a clinical examination, possibly supplemented by a questionnaire. Any supplementary tests are considered on a case by case basis (5). In large epidemiological surveys, prevalence figures for insomnia are usually based on responses to questionnaires. This is a general weakness of these studies. Among other things, the diagnostic criterion of daytime consequences of insomnia may be difficult to capture in a questionnaire, because the recognised consequences of lack of sleep may vary so much.

Insomnia is often regarded by sleep researchers as a hyperarousal disorder (6). At group

level, patients with insomnia have a higher physiological, affective and/or cognitive activation level than patients without insomnia. The initial view is that the high activation level is persistent, and applies to the entire 24-hour period. It is uncertain whether this reflects the fact that worries are more troublesome in the evening, but it states in DSM-5 that daytime sleepiness may occur. The third edition of the International Classification of Sleep Disorders, from 2014, states this even more clearly: daytime sleepiness may form part of the insomnia diagnosis (7). I have wondered whether circadian rhythm disorder would not be a more correct diagnosis for difficulty getting to sleep at night and concomitant daytime sleepiness – as opposed to daytime tiredness – although the difference in Norwegian everyday language between sleepiness and tiredness is rather vague. It is quite possible to be tired and fatigued without falling asleep, and it is possible to fall asleep without being very fatigued if the situation is relaxing and/or boring enough. Moreover, the need for sleep is individual. This means that not everyone who sleeps few hours has insomnia, and not everyone with insomnia sleeps few hours. At group level, both conditions are associated with poor health (2, 8), but do not necessarily have the same pathophysiology, although those with both insomnia and short sleeping hours are probably at the greatest health risk (9).

Altered diagnostic criteria may change prevalence figures without there being any change in the real prevalence

It cannot be easy to arrive at the diagnostic criteria used in the large, international classifications. Conditions are usually grouped according to the clinical picture, as is the case with insomnia. But classifying according to pathophysiology, genetics or treatment that helps does not always give the same result. As many conditions are multifactorial and an apparent cause may give rise to many different symptoms in different individuals, the same symptom may also have different causes. The same patient may then receive different diagnoses for the same condition, depending on the point of view. Nor does a diagnosis that describes a problem necessarily provide the answer to how best to resolve the problem.

Altered diagnostic criteria may change prevalence figures without there being any change in the real prevalence. If changes in the criteria for insomnia improve the accuracy of the diagnosis, we must at any rate be satisfied with that.

REFERENCES:

1. Ohayon MM. Epidemiology of insomnia: what we know and what we still need to learn. *Sleep Med Rev* 2002; 6: 97–111. [PubMed][CrossRef]
2. Bollu PC, Kaur H. Sleep Medicine: Insomnia and Sleep. *Mo Med* 2019; 116: 68–75. [PubMed]
3. Ohayon MM, Roth T. Place of chronic insomnia in the course of depressive and anxiety disorders. *J Psychiatr Res* 2003; 37: 9–15. [PubMed][CrossRef]
4. Olufsen IS, Sørensen ME, Bjorvatn B. Nye diagnosekriterier for insomni og sammenhengen mellom insomni, angst og depresjon. *Tidsskr Nor Legeforen* 2019; 139. doi: 10.4045/tidsskr.19.0041. [CrossRef]
5. Riemann D, Baglioni C, Bassetti C et al. European guideline for the diagnosis and treatment of insomnia. *J Sleep Res* 2017; 26: 675–700. [PubMed][CrossRef]
6. Levenson JC, Kay DB, Buysse DJ. The pathophysiology of insomnia. *Chest* 2015; 147: 1179–92. [PubMed][CrossRef]
7. Sateia M, red. International Classification of Sleep Disorders. Third edition (ICSD-3). Darien, IL: American Academy of Sleep Medicine, 2014.
8. Grandner MA, Patel NP, Gehrman PR et al. Problems associated with short sleep: bridging the gap between laboratory and epidemiological studies. *Sleep Med Rev* 2010; 14: 239–47. [PubMed][CrossRef]
9. Vgontzas AN, Fernandez-Mendoza J, Liao D et al. Insomnia with objective short sleep duration: the most biologically severe phenotype of the disorder. *Sleep Med Rev* 2013; 17: 241–54. [PubMed][CrossRef]

