
STOP, THAT and One Hundred Other Sleep Scales

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(Editors)

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 Springer

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ISBN 978-1-4419-9892-7 e-ISBN 978-1-4419-9893-4
DOI 10.1007/978-1-4419-9893-4
Springer New York Dordrecht Heidelberg London

Library of Congress Control Number: 2011944754

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We dedicate this book to our immediate and extended families and to Ian Oswald, a pioneer in sleep research.

Introduction

There are at least four reasons why a sleep clinician should be familiar with rating scales that evaluate different facets of sleep.

Firstly, the use of scales facilitates a quick and accurate assessment of a complex clinical problem. In 3 or 4 minutes (the time to review ten standard scales), a clinician can come to a broad understanding of the patient in question. For example, a selection of scales might indicate that an individual is sleepy but not fatigued; lacking alertness with no insomnia; presenting with no symptoms of narcolepsy or restless legs but showing clear features of apnea; exhibiting depression and a history of significant alcohol problems. This information can be used to direct the consultation to those issues perceived as most relevant, and can even provide a springboard for explaining the benefits of certain treatment approaches or the potential corollaries of allowing the status quo to continue.

Secondly, rating scales can provide a clinician with an enhanced vocabulary or language, improving his or her understanding of each patient. For example, a medical student or resident in psychiatry may erroneously think that she has performed a comprehensive assessment of Obsessive Compulsive Disorder (OCD) by asking whether the patient repeatedly checks that the door is locked or the stove is switched off. By reading a scale on OCD, the student may develop a deeper appreciation of the condition and its sequelae in a way that is distinctly different – and perhaps more practical – than simply reading a chapter in a textbook. In the case of the sleep specialist, a scale can help him or her to distinguish fatigue from sleepiness in a patient, or elucidate the differences between sleepiness and alertness (the latter is not merely the inverse of the former). Sleep scales are developed by researchers and clinicians who have spent years in their field, carefully honing their preferred methods for assessing certain brain states or characteristic features of a condition. Thus, scales provide clinicians with a repertoire of questions, allowing them to draw upon the extensive experience of their colleagues when attempting to tease apart nuanced problems.

Thirdly, some scales are helpful for tracking a patient's progress. A particular patient may not remember how alert he felt on a series of different stimulant medications. Scale assessments administered periodically over the course of treatment provide an objective record of the intervention, allowing the clinician to examine and possibly reassess her or his approach to the patient. Furthermore, evaluation with the same rating scale on a longitudinal basis may facilitate compliance with treatment, particularly if it provides

objective evidence that the treatment has made positive change in a patient's problem or illness. For this reason, an assessment at the "baseline period" (prior to the first contact with the sleep specialist) is highly desirable.

Finally, for individuals conducting a double-blind crossover trial scales are imperative. However even those doing a straightforward clinical practice audit, and who are interested in research will find that their own clinics become a source of great discovery. Scales provide standardized measures that allow colleagues across cities and countries to coordinate their practices. They enable the replication of previous studies and facilitate the organization and dissemination of new research in a way that is accessible and rapid. As the emphasis placed on evidence-based care grows, a clinician's ability to assess his or her own practice and its relation to the wider medical community becomes invaluable. Scales make this kind of standardization possible, just as they enable the research efforts that help to formulate those standards.

Though the potential for these instruments is great, the key to unlocking that potential lies in the selection of the appropriate scales. A clinician will want to cover those issues that are most applicable to his or her practice, while also querying additional problems or symptoms that could be relevant to a patient's care. For example, a sleep specialist is likely to focus her attention on scales designed to assess both specific sleep disorders and sleep problems in general. However, if a patient is well treated for sleep apnea but has many complaints about low energy and sleepiness, it may be very useful to know that the person scores 25 on the Center for Epidemiological Studies of Depression Scale (where a score of above 16 is suggestive of depression). Information garnered through objective questionnaires can help clinicians to recognize manifestations of problems and disorders that fall outside of their specific disciplines. In the case of the patient with apnea, the identification and treatment of depression could mean the difference between CPAP non-compliance and successful sleep therapy.

While the impulse may be to administer as many scales as possible in the hope that at least one will prove illuminating, the patient's tolerance vis-a-vis lengthy questionnaires must also be considered. When selecting a group of scales for routine use, balance is necessary: the physician requires enough information to make the endeavor useful, but it is vital that he does not overload the patient with too much "homework." In general, we have found that most patients appreciate being asked to complete scales. They view the process as an indicator of the physician's thoroughness (which it is), and are willing to endure more than most clinicians are likely to request. Our anecdotal observation is that only two groups of patients tend to have difficulty with the task: those who are not fluent in the language in which the questionnaires are written and medical professionals who tend to view themselves as exempt from the process. In general, however, it is not difficult to convince patients to participate in their care, and most will not refuse to complete a few well-chosen questionnaires.

Thus, all that remains is to choose the questionnaires that are most pertinent for your clinic or research project. With such a wide range of scales available, a clinician may find the selection process daunting. What are the

most important issues to query? How many scales should be used? Ultimately, the clinician's particular practice and focus will dictate the kind of measures that are needed. A researcher in the field of insomnia, for example, will have different needs than a clinician interested in improving quality of life in patients with sleep apnea, and these two individuals will select scales accordingly. At the end of this book we have included several scales along with a simple scoring guide to help those who are new to such instruments. These materials can be either distributed to patients in the form of a booklet or used to guide the assembly of a similar instrument tailored to one's specific clinical needs. Similarly, the scoring guide can be employed by medical students, residents, fellows, sleep technologists, or other members of the medical team, allowing physicians themselves to focus on the clinical interview.

Clinicians may find the task of selecting questionnaires for use in pediatric populations particularly complex. These scales are often designed for very specific age ranges. While this ensures that appropriate issues and developmental milestones are taken into account, it makes it more difficult to create a consolidated set of scales for routine use in pediatric clinics. Similarly, deciding who to solicit responses from when assessing children is important. For younger patients, questions are usually answered by a parent or guardian and they tend to refer to behaviors rather than emotional states. In the case of adolescent clients, the clinician may desire a response from both the patient and the guardian, requiring multiple separate measures.

For adults, a broad set of standard questionnaires may include the following:

General

The Epworth Sleepiness Scale (ESS), a widely used measure of sleepiness

The Fatigue Severity Scale (FSS), a widely used measure of fatigue

The Toronto Hospital Alertness scale (THAT), an easy-to-use measure of alertness

Owl Lark Self-Test, which helps assess body clock rhythm

Specific

Athens Insomnia Scale, to quickly assess features of insomnia

STOP Bang, easy-to-use inquiry regarding sleep apnea

The Restless legs questionnaire is for trying to detect Restless Legs syndrome and the PLMS

Related Subjects

CAGE, a quick screening measure for alcohol dependence

CES-D, screen for mood-related problems which are common in patients with sleep disorders

Zung Anxiety scale

Illness intrusiveness scale

This set of 11 scales (see Appendix) is short, and would take someone with a little experience only three minutes to assess. While no substitute for a clinical interview, these scales provide a vast amount of information and take only a modest amount of time to complete and review. Provided that they

have been scored, a physician familiar with these scales would require less than a minute to glean a reasonably comprehensive sketch of an individual patient. For convenience, the set could be mailed out and completed at home prior to a clinical appointment, or a patient could be asked to complete these scales while waiting in the doctor's office.

The large part of this book is devoted to briefly discussing individual scales. When possible (for copyright reasons), an example of the scale is provided so that readers may gain a sense of the instrument's content. The individual using the scales needs to ensure that they have appropriate copyright permission where necessary.

As we acquire new scales (and add omissions from the list we have created in this book and which should have been included), we will add information about these scales on a section of our website (www.sleepontario.com). We hope that these scales may appear in a future edition of the book. We will also endeavour to keep this as a repository of translations of scales and we would welcome submissions of translations and recommendations of scales to be added to suzanne.alves@uhn.ca. The scale STOP-Bang has eleven translations in this book (see Chap. 92).

Note on the Text

We would like to thank all the authors and publishers who allowed us to reprint their scales and questionnaires. We acknowledge that the copyrights belong to their respective owners and the scales are reprinted with their permission.

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