

are precipitated by milder emotions and/or positive emotions or are clearly visible to observers. As cataplexy symptoms can be controlled by REM-suppressing antidepressants, this symptom may be masked in patients on these drugs. If the patient is on, or has ever been on, an antidepressant one should enquire about whether cataplexy was present before starting on the antidepressant and whether the antidepressant improved the cataplexy. If patients experience a significant and rapid improvement in symptoms on starting an antidepressant, or a rebound of symptoms on stopping it, this makes a diagnosis of cataplexy more likely.

In any patient with suspected central hypersomnolence, one needs to screen for psychiatric disorders. Hypersomnia associated with a psychiatric disorder accounts for 5–7% of hypersomnolence (AASM 2014). In cases where the hypersomnolence is precipitated by depression, the hypersomnolence may persist once the mood has stabilized (AASM 2014). Therefore, one should ask about mood and other psychiatric disorders at the time the sleepiness started, even if there is no psychiatric comorbidity at present.

Mood symptoms may be common in narcolepsy, and patients report that these symptoms lead to significant daytime dysfunction. Anxiety disorders, particularly panic attacks and social phobia, are also more common in narcolepsy, but the anxiety symptoms are not always volunteered by the patients; therefore one needs to specifically ask about them (Fortuyn et al. 2010).

3.9 Sleep Diaries

There are few tools more useful in assessing sleep disorders than a sleep diary. Obviously, the utility of the diary will depend on the patient keeping a reasonably accurate record of their behaviours and their subjective experience of sleep. A basic sleep diary (Appendix A) will record time to bed and rising time, time in bed, sleep onset latency, number of awakenings, wakefulness after sleep onset and total sleep time. It can be helpful to instruct the patient to fill in TIB, SOL, WASO and TST in minutes rather than hours as it is then easier to calculate an average for the week. The TIB and SOL can be used to calculate the sleep efficiency as described above. One can also ask patients to record parasomnias such as night terrors or nightmares, whether they took a sleeping pill, daytime caffeine and alcohol, exercise, etc.

If one suspects a circadian rhythm disorder, it may be more helpful to utilize a visual diary with the day divided into blocks of 30 min. The patient colours in blocks a different colour depending on whether they were predominantly asleep or awake during that time (see Fig. 3.1). If they are asleep for only part of that time, they colour the block according to whether they spent more time asleep or awake in that epoch. For example, if they wake from sleep at 7:10, the 7:00 to 7:30 epoch is coloured as awake; if they wake at 7:20, the epoch is coloured as asleep. This allows one to see patterns and changes more clearly. One can of course use smaller blocks of time, but the inherent inaccuracy of all sleep diaries means this is rarely useful.

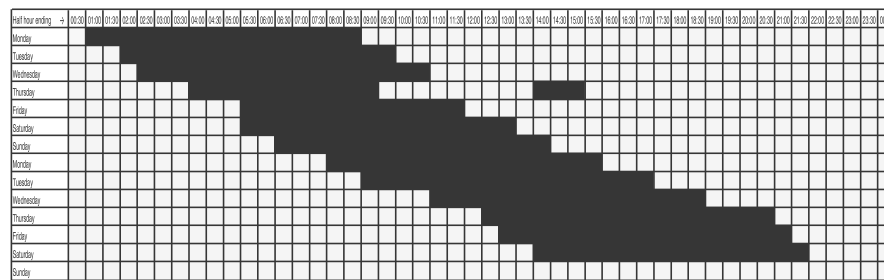


Fig. 3.1 Visual sleep diary showing a non-24-h sleep-wake rhythm. The light blocks indicate wakefulness, and the dark blocks indicate sleep

3.9.1 Using Scales

There are numerous scales that have been developed for sleep medicine over the years. However, very few of them are used in clinical practice, and they tend to be used more in research or audit settings. When used in a clinical context, the choice of scale will depend on the specific clinical setting. For example, the type of questionnaire used to screen for OSA in primary care will likely be one with a high sensitivity but poor specificity in order to screen for patients that require further investigations. Once those patients have been channelled to a sleep clinic, it may be more useful to administer questionnaires with a high specificity to clarify the diagnosis.

One problem that affects most scales is that they have not been validated in the psychiatric population. This is problematic as there is often significant overlap between psychiatric symptoms and the symptoms of sleep disorders. For example, fatigue, irritability and difficulty concentrating could be symptoms of depression, schizophrenia, OSA, insomnia, PLMS or circadian rhythm disorders. One therefore needs to interpret any scales used with the psychiatric co-morbidities in mind.

3.9.2 Epworth Sleepiness Scale (ESS)

(See Appendix A).

The one scale that is almost ubiquitous is the Epworth Sleepiness Scale (ESS) which measures the degree of sleepiness experienced during waking hours (Johns 1991). This scale asks the patients how likely they are to fall asleep in eight different situations in recent times. If they haven't been in a particular situation recently, then they are asked to imagine how likely they would be to fall asleep if they had been in that situation. This is not always easy for patients, particularly with regard to the last question which asks about falling asleep while stationary in a car. In countries where there are large numbers of people who have never learned to drive, many patients find this a very difficult question to answer. Despite this, the ESS has been validated in numerous countries and languages and can be a very helpful measure.

The cut-off between normal and abnormal sleepiness on the ESS is an area of debate, but 10 or 11 out of 24 is generally considered to mark the transition from normal to abnormal sleepiness (Johns and Hocking 1997). It can be really useful to get partners/parents, etc. to also fill in an Epworth for the patient and, if there is a significant difference, to explore why. This is also important when there may be a reason for the patient to give an artificially high score (e.g. if drug seeking or looking to be signed off from work) or an artificially low score (e.g. if their driving licence is at risk). One should also view the Epworth in the context of the patient's history. It is not uncommon for patients to have a low Epworth score but describe significant sleepiness in their history. Some patients who are sleepy learn to manage their sleepiness, for example, by taking a nap every afternoon. They will therefore score 3/3 for the question on whether they would sleep if they lie down in the afternoon, but score low on other questions. It is therefore important when looking at the Epworth score to not only look at the total but also at each individual question. Clearly there is a big difference between someone who has a high chance of falling asleep when lying down and someone who would fall asleep while talking to someone. Insomnia patients tend to have a low Epworth score, but this is not always the case. Interestingly, insomnia patients will often report falling asleep easily while watching TV, sitting quietly after lunch, etc. but score 0/3 on the question about lying down in the afternoon. This demonstrates that there is strong psychological element to the insomnia as they are capable of falling asleep easily except when actually trying to fall asleep.

Another very useful aspect of the ESS is that it helps the patient (and the clinician) to differentiate between sleepiness and fatigue/tiredness. Most sleep disorder patients experience fatigue, but not all are sleepy. For example, many insomnia patients have crippling fatigue but are not sleepy. By getting the patient to focus on whether they would actually fall asleep as opposed to feeling tired, one can gain an insight into their sleep propensity.

It is common practice in sleep clinics to do an Epworth on every visit. This allows one to monitor the response to treatment, and, if a person's Epworth does not drop into the normal range with treatment, one should consider whether there is an additional cause for their sleepiness that may have been missed. Once again, be aware that patients may give an artificial score once they understand what the implications of their diagnosis are in terms of treatment, work and driving. A sudden drop in the Epworth score before treatment is initiated should raise the suspicion that this may be a factor.

3.10 Assessing Sleep in a Psychiatric Inpatient Setting

When a patient is admitted to hospital, it presents an opportunity to more fully assess their sleep over a period of time, but one needs to look out for certain pitfalls. The acutely unwell patient may have a very different sleep pattern from when they are in remission and living at home, and this is further confounded by the fact that medications are often being titrated and changed. The psychiatric ward can be a very unnatural, and sometimes frightening, environment for patients. The fact that

there are so many staff and other patients in a confined space means they are often quite noisy.

Nevertheless, it is still potentially fruitful to assess patients' sleep. If nothing else, asking about a patient's sleep can be a good way of building rapport. In patients with psychotic disorders or mania, there may be a great deal of disagreement between the clinician and the patient about the nature and importance of their symptoms. But the patient and the clinician are likely to agree on the importance of good sleep, and patients are often extremely grateful when someone takes an interest in their sleep. Secondly, an inpatient stay does create an opportunity to detect sleep disorders that might otherwise be missed. Many patients with chronic and severe mental illness live alone, and there is often no one to provide a collateral sleep history. When they are staying on a ward, there is a rare opportunity to observe their sleep. Having a systematic and effective way of doing this makes these observations more useful.

Sleep reports are commonly collected by ward staff on night duty. However, these are usually reports of behaviour rather than observations about sleep. A common example is that patients may be reported to have had 'a settled night'. This is more of a statement of how long they were in bed and how frequently they were seen out of bed rather than an observation about their sleep. When staff check on patients in the night, they will usually record them as being asleep if they are in bed with the lights off, though they may well be awake in the bed. It should be borne in mind that the act of making these observations may in itself disrupt the patients' sleep.

There is therefore a lot to be gained from training ward staff to be exact in their use of terminology, e.g. differentiating between 'the patient was asleep' and 'the patient was in bed' as well as training them to report more detailed sleep information. For example, night staff should report if patients were heard snoring so that their doctor can be alerted to the possibility of OSA. Similarly, sleepiness in the day often goes unnoticed as the patient is quiet and not demanding attention, so day staff should be encouraged to report periods of sleep during the day.

Finally, although staff may be keeping a log of the patient's sleep, there is no reason that the patient cannot keep a sleep diary for themselves when on the ward. This can be compared to the staff log and may provide useful clinical information. It also encourages the patient to be actively involved in the management of their sleep and allows them to monitor their own progress as the therapeutic interventions take effect.

3.11 Taking a Brief Sleep History

There are numerous scenarios where taking a full and detailed sleep history is unnecessary or impractical. For example, in primary care or during a psychiatric assessment, one may only have a few minutes to enquire about sleep. What follows is a simple format for taking a brief sleep history for screening purposes, or to decide whether and where to refer someone with a sleep complaint. Each box addresses an aspect of the history and suggests some useful questions to elicit that history.

3.11.1 Brief Sleep History Template

Epworth sleepiness score: _____

Main Complaint

- How do you sleep?
- How long has this been a problem?
- What do you think is causing the problem?

Typical Night

- What time do you go to bed?
- What time do you fall asleep?
- How many times do you wake during the night?
- How long are you awake for during these awakenings?
- What time do you wake up? (this is the final awakening after which the patient does not return to sleep)
- What time do you need to get up?
- What time do you get up?
- How much sleep do you think you get in total on a typical night?

Daytime Symptoms

- How do you feel during the day?
- Do you feel tired or sleepy?
- Do you nap intentionally or unintentionally during the day?
- What time of day do you feel most alert and most sleepy?

Previous Treatments

What remedies have you already tried (behavioural and medical); what effects did they have?

Sleep Apnoea

- Do you snore?
- Has anyone said you stop breathing in your sleep?
- Do you ever wake up choking?
- Do you sweat a lot in your sleep?
- How many times do you have to pass water at night?
- Do you often wake with a headache?