Leeds Sleep Evaluation Questionnaire (LSEQ)

The Leeds Sleep Evaluation Questionnaire in Psychopharmacological Investigations — a Review

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Abstract. The Leeds Sleep Evaluation Questionnaire comprises ten self-rating 100-mm-line analogue questions concerned with aspects of sleep and early morning behaviour. The questionnaire has been used to monitor subjectively perceived changes in sleep during psychopharmacological investigations involving a variety of psychoactive agents, including sedative-hypnotics, antidepressants, anxiolytics, CNS stimulants, and antihistamines.

Dose-related improvements in the self-reported ratings of getting to sleep and perceived quality of sleep were generally associated with reductions in the self-reported levels of alertness and behavioural integrity the morning following the nocturnal administration of sedative hypnotic and anti-anxiety agents. Psychostimulants, on the other hand, impaired subjective ratings of sleep and produced increases in early morning assessments of alertness. Certain antidepressant and antihistaminic agents produced effects similar to the sedative-hypnotics, while others did not affect self-reported aspects of sleep and early morning behaviour.

Key words: Analogue rating scales — Benzodiazepines — Hypnotics — Sleep

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Johns (1971) in a comparative review of the different methods for assessing sleep, suggested that subjective, self-reports were sensitive to changes in sleep, especially in psychopharmacological investigations. Samuels (1964) demonstrated the empirical usefulness of self-ratings in an investigation of sleep in hospitalized depressed patients. He showed that patient's own ratings of sleep discriminated significantly between drug and placebo nights, but that nurses' ratings of the patients' sleep did not make a significant discrimination. Lewis (1969) compared subjective estimates of sleep with objective EEG evaluations, and although subjects tended to overestimate the delay in getting to sleep and underestimate the total sleep time, the objective measures and subjective self-evaluations did correlate. Adam et al. (1976) also demonstrated a close correspondence between self-reported changes and EEG changes related to drug administration.

One of the most frequently employed measures for self-assessment of sleep is the 100-mm-line visual analogue self-rating scale (Aitken 1969; Lader and Norris 1969; Herbert et al. 1976). Visual analogue scales consist of a 100-mm-horizontal line with two extreme states defined at the ends of the line (e.g. alert/not-alert). The subject responds by placing a vertical mark on the line to indicate his present self-evaluation. Although the questions used vary between researchers, there is a degree of communality. There is generally a question concerning sleep onset (very abrupt — very slow, Bond and Lader 1975; I fell asleep never — immediately, Adam et al. 1976); and a question concerning the quality of sleep, (a very good night's sleep — a very bad night's sleep, Salkind and Silverstone 1975; I slept very badly — very well, Nicholson et al. 1976). Behavioural aspects of awakening, and general feelings of vitality and alertness in the period after awakening are also often rated, (Lader and Norris 1969; Adam et al. 1976). Dream content and quality (Firth 1974), and mood/feeling states in the morning (Lader and Norris 1969; Herbert et al. 1976), have also been measured.

The Leeds Sleep Evaluation Questionnaire (SEQ) contains ten questions pertaining to four consecutive aspects of sleep: getting to sleep (GTS), quality of sleep (QOS), awakening from sleep (AFS), and behaviour following wakefulness (BFW). The Leeds SEQ contains more questions than those generally used by other workers, where between three (Bond and Lader 1975), and five (Nicholson et al. 1976) questions are generally

Leeds Sleep Evaluation Questionnaire (LSEQ)

Scoring & Administration

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Visual analogue scales consist of a 100-ram-horizontal line with two extreme states defined at the ends of the line (e. g. Tired = score of 0, Alert = score of 10). The subject responds by placing a vertical mark on the line to indicate his present self- evaluation.

Scoring the LSEQ

Add up the scores for each domain by measuring where the respondent has marked on the 10cm line.

Each question is scored out of 10. (score 0 for 0cm up to...

Higher Scores indicate a...

Below is a scoring table

Domain Name	Question items + Totals
Getting to sleep (GTS)	Q1 = _____ Q2 = _____ Q3 = _____ Total GTS score _____/30

This is the end of the SAMPLE LSEQ scoring & administration.
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Leeds Sleep Evaluation Questionnaire

Place a vertical mark on the line to indicate you self- evaluation –

How would you describe the way you currently fall asleep in comparison to usual?

1. More difficult than usual _____ Easier than usual

2. Slower than Usual _____ More quickly than usual

3. I feel less sleepy than usual _____ More Sleepy than usual

GTS - getting to sleep

How would you describe the quality of your sleep compared to normal sleep?

4. More restless than usual _____ Calmer than usual

5. With more wakeful periods than usual _____ With less wakeful periods than usual

QOS - quality of sleep

This is the end of the SAMPLE LSEQ questionnaire.
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