

*The Tayside Children's Sleep Questionnaire<sup>1</sup> (TCSQ) assesses the presence and severity of "disorders of initiating and maintaining sleep" (DIMS) in children between 1 and 5 years of age, based on the report of the parent(s).*

The authors of the TCSQ cite research indicating that, in young children, "while sleep problems associated with organic or psychiatric problems are relatively rare, those resulting from behavioral disturbances are relatively widespread and affect between 20 and 25% of children under the age of 5 years." They note that the most common of these behavioral disturbances are (a) difficulty settling in during bedtime (eg, reluctance or refusal to go to bed or to sleep alone), (b) repeatedly awakening during the night (which can include disruptive behavior), and/or (c) early morning arousal. These problems are referred to as disorders of initiating and maintaining sleep.

The TCSQ contains 10 items that measure sleep patterns relevant to disorders of initiating and maintaining sleep. In order to identify sleep problems that are persistent, rather than those that are transient, responses to the items are based on the pattern of behavior over a 3-month period. A 5-point rating scale is used so that milder as well as more severe problems can be detected. To obtain the total score, only the first 9 items are considered, resulting in a cumulative sleep disturbance score that will be within a range of 0 to 36. The total score on the questionnaire indicates the severity of the problem (higher scores indicate greater severity). The authors note that the degree of severity can be a factor in determining whether to offer a low level intervention such as simply distributing a "sleep booklet" that provides advice, or a more intensive intervention such as a tailored behavioral treatment.

The authors comment that they believe the TCSQ to be the first validated assessment instrument specifically designed to assess DIMS in children aged between 1 and 5 years. The TCSQ was, in part, adapted from the DIMS component of the Sleep Disturbance Scale for Children,<sup>2</sup> a scale for use with older children and one that has several subscales for the purpose of assessing a wide range of sleep disorders. Items 1, 2, 3, 5, and 6 are adapted from the Sleep Disturbance Scale for Children. 4 of the remaining 5 items pertain to behavior related to sleep waking or need for parental involvement to return to sleep. The final item (#10) is included determine whether the parent perceives that the child has sleep difficulties.

The focus of each of the items (1 through 10) is as follows: **(1)** sleep latency; **(2)** reluctance for bed; **(3)** difficulty falling asleep; **(4)** not in own bed; **(5)** wakes during the night; **(6)** difficulty falling asleep again; **(7)** sleeps in parents' bed; **(8)** needs parent to replace pacifier; **(9)** needs a drink during the night; **(10)** parents think sleep is a problem.

A validation study<sup>1</sup> identified 2 main factors. These factors are Core Sleeping Problems (items 3,5,6,7,10) and Parent Interventions (items 8,9,10). The authors comment that "the presence of only two main factors indicates that the questionnaire is very specific to disorders of initiating and maintaining sleep within a normal population, unlike others . . . that included all childhood sleep disorders."

The authors note that a cutoff score of 8 is optimal because it "enables the mild and moderate sleep problems (eg, the child having difficulty settling to sleep two or three nights a week) to be measured and appropriate intervention to be offered to the parents." They note that the appropriateness of that cutoff score is supported by clinical experience, previous research, "and validated qualitatively by interviewing mothers of cases and non-cases and by scoring sleep data from case notes of known cases."

The authors of the TCSQ conclude that the "Tayside Children's Sleep Questionnaire (TCSQ) is an easy-to-read and reliable tool that could be used both as a clinical and research instrument to assess the severity and prevalence of DIMS in young children." They add that the TCSQ "is suitable for use by practitioners working in primary care with no in-depth knowledge of children's sleep problems to aid diagnosis and guide the referral process ensuring that those children requiring active treatment are prioritized in the system."

<sup>1</sup>McGreavey, JA, Donnan PT, Pagliari HC, & Sullivan FM. The Tayside Children's Sleep Questionnaire: A simple tool to evaluate sleep problems in young children. *Child: Care, Health & Development*, 31:539-544, 2005.

<sup>2</sup>Bruni O, Ottaviano S, Guidetti V, et al. The Sleep Disturbance Scale for Children: Construction and validation on an instrument to evaluate sleep disturbance in childhood and adolescence. *Journal of Sleep Research*, 5:251-261, 1996.

Note: The TCSQ is also referred to as the NHS Tayside Children's Sleep Questionnaire. "NHS" refers to the United Kingdom's National Health Service.

**(See the next page for a copy of the Tayside Children's Sleep Questionnaire)**

**NHS TAYSIDE CHILDREN'S SLEEP  
QUESTIONNAIRE**

This questionnaire asks about the child's sleep pattern over the last 3 months.

Date:

Please put an "X" in the box that best answers each question.

	<b>Time to get to sleep</b>	15 min	15-30 min	30-45 min	45-60 min	60 min or more
1	How long after going to bed does your child usually fall asleep?					

	<b>Types of sleep disturbance</b>	Never	Occasionally (Once or twice per month)	Sometimes (Once or twice per week)	Often (3-5 times per week)	Always (Every night)
2	The child goes to bed reluctantly					
3	The child has difficulty getting to sleep at night (and may require a parent to be present)					
4	The child does not fall asleep in his/her own bed					
5	The child wakes up two or more times in the night					
6	After waking up in the night the child has difficulty falling asleep again by him/herself					
7	The child sleeps in the parents' bed during the night					
8	If the child wakes, he/she uses a pacifier and requires a parent to replace it					
9	The child wants a drink during the night (including breast or bottle feed)					

	<b>Your views</b>	No	Yes
10	Do you think your child has sleeping difficulties?		

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### Scoring

[Item 1]: 15 min=0; 15-30 min=1; 30-45 min=2; 45-60 min=3; 60 min or more=4

[Items 2 to 9]: Never=0; Occasionally=1; Sometimes=2; Often=3; Always=4

To obtain the total score (ie, the cumulative sleep disturbance score), sum the scores of the first 9 items. The total score (range of 0 to 36) indicates the severity of the problem (higher scores indicate greater severity). The average (mean) score among a randomly selected sample of 1023 children living in Scotland (United Kingdom) was 7.4. Just over one-third (35%) of these children had a score of 8 or above, "which is consistent with the prevalence rate for DIMS reported elsewhere."

### Note

Permission has been granted to alter the wording of item 8 to conform to US English usage.

The original item 8 is: <If the child wakes, he/she uses a comforter (e.g. dummy) and requires a parent to replace it>

A pacifier is typically referred to as a "dummy" or "comforter" in the United Kingdom, where the Tayside Children's Sleep Questionnaire was developed.