Sleep Complaints and Psychiatric Symptoms in Children Evaluated at a Pediatric Mental Health Clinic

Anna Ivanenko, M.D., Ph.D.;1 Valarie McLaughlin Crabtree, Ph.D.;2 Louise Margaret O’Brien, Ph.D.;2 David Gozal, M.D.2

1Department of Psychiatry and Behavioral Neurosciences, Loyola University Medical Center, Maywood, IL; 2Division of Sleep Medicine, Kosair Children’s Hospital Research Institute, Department of Pediatrics, University of Louisville, Louisville, KY

Study Objectives: To examine the association of sleep problems with psychiatric symptoms in children evaluated at a university-based outpatient child psychiatry clinic.

Methods: Parents of 174 children attending psychiatric services completed a 47-item Childhood Sleep Questionnaire and the Behavioral Assessment System for Children. Psychiatric diagnosis was obtained through retrospective chart review. Sleep characteristics were compared among 4 diagnostic subcategories: attention-deficit/hyperactivity disorder (ADHD) alone (n=29), ADHD with comorbid mood and anxiety disorders (ADHD+; n=50), mood and anxiety disorders alone (n=67), and other psychiatric disorders (n=28). Data from sleep habits survey of 174 community children without reported psychiatric history served as controls.

Results: Children with psychiatric disorders had a significantly higher prevalence of sleep complaints compared with nonpsychiatric controls. Children with ADHD had frequent nocturnal awakenings, bad dreams, and bedtime struggles. In addition, the presence of leg jerks during sleep was particularly frequent in patients with ADHD compared with any other psychiatric disorder. More frequent nighttime awakenings were present in children with mood and anxiety disorders. Sleep duration and sleep latency strongly correlated with aggression, hyperactivity, and depression. Restless sleep scores highly correlated with all psychiatric symptoms.

Conclusions: Sleep problems are highly prevalent among children with psychiatric disorders. Children with ADHD and comorbid anxiety or mood disorders are more likely to report sleep disturbances. Restless sleep, long sleep latency, short sleep duration, and frequent nocturnal awakenings correlate with the severity of psychiatric symptoms.

Keywords: Sleep, psychiatric symptoms, children


Sleep problems are highly prevalent in the pediatric population and have been associated with a number of behavioral and emotional problems in children and adolescents. There is growing evidence indicating a relationship between sleep quality and emotional well-being in children.1-3 Furthermore, the presence of sleep disturbances at a young age appears to predict subsequent emotional or behavioral problems during midadolescence,4 thereby emphasizing the need for assessment of sleep factors as potential modifiers of the risk for psychopathology.

Early studies of children with major depression have shown that approximately two thirds of such patients suffer from various forms of insomnia.6 Anxiety disorders, such as posttraumatic stress disorder, obsessive-compulsive disorder, and school refusal are also frequently associated with sleep and circadian disruptions,7-10 and a high rate of subjective sleep complaints has been documented among children with attention-deficit/hyperactivity disorder (ADHD).11-13

Despite the importance of sleep in the neurobehavioral development of children, little is known about the prevalence of sleep problems in children with emotional and behavioral disturbances and, more specifically, whether any particular psychiatric disorder carries a particularly high sleep-related morbidity. It also remains unclear whether the influence of ADHD on sleep is unique to ADHD or is due to the presence of psychiatric comorbidities and whether other psychiatric disorders of childhood present with similar sleep-related symptoms. There is a definite lack of studies addressing these issues across psychiatric cohorts of children, with only 1 attempt made to compare parental sleep complaints of children evaluated at a mental health clinic to sleep symptoms reported by parents of children from a general population.14 This latter study14 revealed a significantly greater prevalence of nightmares and restless sleep in children with anxiety or depression as well as significantly more snoring, head banging, nocturnal awakenings, and restlessness among children with ADHD. These findings suggest a somewhat different distribution of sleep complaints among children with different types of emotional and behavioral morbidities.

In order to assess more formally the relationship between specific sleep complaints and psychiatric disorders, the goal of the present study was to examine the prevalence of sleep complaints in a population of children and adolescents with emotional and behavioral disorders, as compared with children without psychiatric disorders. A secondary goal was to identify sleep factors that may be correlated with specific emotional and behavioral problems.

Disclosure Statement
This was not an industry supported study. Dr. Gozal has received research support from AstraZeneca and has participated in speaking engagements supported by Merck & Co. Drs. Ivanenko, Crabtree, and O’Brien have indicated no financial conflicts of interest.

Submitted for publication February 10, 2005
Accepted for publication August 12, 2005

Address correspondence to: Anna Ivanenko, M.D., Ph.D. Department of Psychiatry and Behavioral Neurosciences, Loyola University of Chicago, 2160 S. First Avenue Building 105 Room 1942, Maywood, IL 60153; Tel: (708) 216-3273; Fax: (708) 216-5885; E-mail: aivanenko@lumc.edu

Journal of Clinical Sleep Medicine, Vol. 2, No. 1, 2006
METHODS

Parents completed 2 questionnaires regarding sleep and behavior for 174 consecutive children attending a university child psychiatric outpatient clinic. The Behavior Assessment System for Children (BASC)13 consists of 126 to 138 questions, depending upon the age of the child. The 47-item Childhood Sleep Questionnaire was developed by the authors and has been used in previous surveys13 for assessment of sleep-related behaviors and perceived sleep problems. Parents of children from the community without reported psychiatric or medical problems also completed the Childhood Sleep Questionnaire as part of a larger ongoing project, and the most recent 174 questionnaires were used as control data in the present study.

The BASC Parental Rating Scales have 3 forms with questions targeted at 3 age levels: preschool (2.5-5 years), child (6-11 years), and adolescent (12-18 years). The Parental Rating Scales use a 4-point scale of frequency, ranging from Never to Almost Always. The BASC assesses clinical problems in a wide range of dimensions including Internalizing Problems, Externalizing Problems, and Adaptive Skills.15 BASC Enhanced ASSIST computer software (AGS, Circle Pines, MN) was subsequently used to score and analyze responses and to prepare a database file for statistical analyses.

The Childhood Sleep Questionnaire is a detailed questionnaire assessing sleep problems, habits, and practices. While some demographic and clinical questions have open-ended responses, the majority of the questions are designed as a 4-choice frequency response format: Never, Sometimes, Frequently, Almost Always. Frequency of occurrence for any item on the sleep questionnaire was subsequently coded on a rating scale from 1 to 4, with 1 corresponding to Never and 4 corresponding to Almost Always. A scannable version of the Childhood Sleep Questionnaire was prepared using Teleform 6.1 Standard software (Cardiff Software, Inc., San Marcos, CA), and the Scanpartner 15C scanner (Fujitsu Computer Products) was used to enter responses into the comprehensive database for subsequent analyses.

The study protocol was approved by the Institutional Review Board of the University of Louisville, Louisville, KY, and informed consent was obtained from the legal caretaker of every participant.

A retrospective review of psychiatric records was further conducted to obtain or confirm demographic and clinical characteristics for all participants. Based on the clinical diagnoses, respondents were subdivided into 4 diagnostic categories, namely, ADHD alone (n=29), ADHD with other psychiatric comorbidities, such as mood and anxiety disorders (ADHD+; n=50), mood and anxiety disorders alone (Manx; n=67), and other psychiatric disorders, e.g., adjustment disorder, autism (n=28).

Spearman correlation coefficients, χ² analysis, and 1-way analyses of variance (ANOVA) were used to examine associations between behavioral, sleep, and demographic characteristics within the selected groups, using a statistical software package (SPSS for Windows, SPSS, Chicago, IL). Statistical significance was set at p < .05.

RESULTS

Demographic and clinical characteristics of the children whose parents participated in the survey are presented in Table 1. Sleep and BASC questionnaires were completed on 174 children (112 boys) with a mean age of 10.5±3.6 years (range: 5-18 years). A formal psychiatric diagnosis of ADHD was present in 39.6%, of mood or anxiety disorder in 48.8%, and of adjustment disorders in 17.2%. Other psychiatric diagnoses (13.8%) included pervasive development disorders in 7 children, Tourette syndrome in 10 children, conduct and oppositional-defiant disorders (ODD) in 4, and reactive attachment disorder in 3 patients. Children with Tourette syndrome were included because of psychiatric comorbidities such as ADHD, conduct disorder, or ODD. Tourette disorder is classified as Impulse Control Disorder in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition and may or may not be associated with comorbid emotional or behavioral conditions. Medical conditions included asthma and allergies in 18 children, gastroesophageal reflux disease in 3 patients, growth hormone deficiency in 1 patient, and hypothyroidism in 1 patient. Few children had previously undergone polysomnography and were diagnosed with obstructive sleep apnea (2 patients), periodic limb movement disorder (1 patient), and narcolepsy (1 patient). In addition to the children attending the clinical setting, children without a psychiatric or behavioral history were randomly selected from the local community as part of a larger study. These children comprised the control group. Questionnaire data from the most recent 174 control children (75 boys) was obtained. The mean age of the control group was 7.2±2.2 years (range 5.0-16.1 years).

Prevalence of Sleep Complaints Among Children With Psychiatric Disorders

For the whole cohort, a significantly higher frequency of sleep problems (Often or Almost Always) was noted for delayed sleep onset (61.5%), nocturnal awakenings (63%), restless sleep (67.8%), leg jerks (57.5%), daytime sleepiness (66.7%), fear of the dark (49.4%), bedtime struggles (62.6%), snoring (55.7%), and nightmares (58.6%) in children with psychiatric diagnoses compared with nonpsychiatric controls (See Table 2).

The prevalence of specific sleep complaints among children with different diagnostic subcategories is presented in Table 3. The ADHD+ group had more frequent nocturnal awakenings than the ADHD group (p < .04) and than those with other psychiatric diagnoses (p < .001), more nightmares (p < .04) than those with other psychiatric diagnoses, and more frequent bedtime struggles (p < .003) than the mood and anxiety disorders alone group. Leg jerks were more likely to occur in children in the ADHD and ADHD+ groups compared with children in the mood and anxiety disorders alone group (p < .03) and those with other psychiatric disorders. The prevalence of specific sleep complaints among children with different diagnostic subcategories is presented in Table 3. The ADHD+ group had more frequent nocturnal awakenings than the ADHD group (p < .04) and than those with other psychiatric diagnoses (p < .001), more nightmares (p < .04) than those with other psychiatric diagnoses, and more frequent bedtime struggles (p < .003) than the mood and anxiety disorders alone group. Leg jerks were more likely to occur in children in the ADHD and ADHD+ groups compared with children in the mood and anxiety disorders alone group (p < .03) and those with other psychiatric disorders.
Association of Sleep Complaints With Psychiatric Symptoms

As shown in Table 4, sleep duration and sleep latency were strongly correlated with aggression, hyperactivity, atypicality, and depression T-scores on the BASC. Concentration problems correlated highly with nocturnal awakenings, sleep latency, leg jerks, and restless sleep and were mostly related to factors associated with sleep fragmentation and delayed sleep onset. Restless sleep scores correlated with all BASC scales except for withdrawal and social skills, indicating that complaints of restless sleep are frequent and encompass a wide range of psychiatric pathology.

Nocturnal awakenings correlated strongly with aggression, anxiety, conduct problems, hyperactivity, depression, and somatization symptoms. Anxiety symptoms were strongly associated with sleep habits, such as sleeping with the lights on, requiring a toy or object for sleep onset, sensitivity to noises, fear of the dark or of being alone, requiring bedtime rituals, nightmares, and crying during sleep.

Snoring and witnessed apneas were significantly correlated with symptoms of aggression, atypicality, hyperactivity, depression, and somatization. A strong correlation existed between sleep variables and externalizing and internalizing T-scores. However, only internalizing symptoms were associated with excessive daytime sleepiness, fear of the dark, bedtime rituals, sensitivity to noises, and sleeping with the lights on.

DISCUSSION

This is the first study to systematically compare reported sleep characteristics between children with different psychiatric morbidities and nonpsychiatric controls. We have confirmed previous findings of the high prevalence of sleep problems reported by parents among a heterogeneous group of children with behavioral diagnoses (p < .04). Nighttime awakenings were similar in the ADHD+ and mood and anxiety disorders alone groups. However, more frequent nighttime awakenings were present in the mood and anxiety disorders alone group than in those with other psychiatric diagnoses (p < .0001). No differences were detected between the groups for other sleep variables (Table 3). All subgroups were significantly more likely to report these sleep complaints than the nonpsychiatric control group.

Table 2—Prevalence of Sleep Complaints Among 174 Children with Psychiatric Disorders and 174 Control Children

<table>
<thead>
<tr>
<th>Sleep Problem</th>
<th>Psychiatric Sample</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep latency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 1 h</td>
<td>25.3*</td>
<td>6.3</td>
</tr>
<tr>
<td>30 min-1 h</td>
<td>36.2*</td>
<td>8.6</td>
</tr>
<tr>
<td>Nocturnal awakenings</td>
<td>63.0*</td>
<td>24.1</td>
</tr>
<tr>
<td>Nightmares</td>
<td>58.6*</td>
<td>1.1</td>
</tr>
<tr>
<td>Nocturnal enuresis</td>
<td>24.8*</td>
<td>2.9</td>
</tr>
<tr>
<td>Snoring</td>
<td>55.7*</td>
<td>17.2</td>
</tr>
<tr>
<td>Restless sleep</td>
<td>67.8*</td>
<td>23.0</td>
</tr>
<tr>
<td>Excessive daytime sleepiness</td>
<td>66.7*</td>
<td>10.9</td>
</tr>
<tr>
<td>Fear of dark</td>
<td>49.4*</td>
<td>21.8</td>
</tr>
<tr>
<td>Bedtime struggles</td>
<td>64.4*</td>
<td>6.3</td>
</tr>
<tr>
<td>Morning tiredness</td>
<td>80.4*</td>
<td>23.6</td>
</tr>
<tr>
<td>Leg jerks</td>
<td>57.5*</td>
<td>2.7</td>
</tr>
</tbody>
</table>

*p < .0001

Table 3—Prevalence of Sleep Problems Among 4 Diagnostic Subcategories in 174 Children with Psychiatric Disorders and 174 Control Children

<table>
<thead>
<tr>
<th>Sleep Problem</th>
<th>Diagnosis</th>
<th>ADHD</th>
<th>ADHD+</th>
<th>Manx</th>
<th>Other</th>
<th>Controls</th>
<th>n=174</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep latency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 h</td>
<td>27.6†</td>
<td>26.0*</td>
<td>13.4</td>
<td>18.5</td>
<td>6.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nocturnal awakenings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nightmares</td>
<td>48.2†</td>
<td>82.0*</td>
<td>71.7†</td>
<td>22.2</td>
<td>24.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snoring</td>
<td>55.1‡</td>
<td>64.3*</td>
<td>64.2*</td>
<td>37.0*</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restless sleep</td>
<td>58.6†</td>
<td>68.0*</td>
<td>46.3*</td>
<td>55.5*</td>
<td>17.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive daytime sleepiness</td>
<td>69.0†</td>
<td>78.0*</td>
<td>59.6*</td>
<td>66.6*</td>
<td>23.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of dark</td>
<td>55.2</td>
<td>76.0*</td>
<td>73.2†</td>
<td>44.4†</td>
<td>10.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedtime struggles</td>
<td>62.0‡</td>
<td>52.0*</td>
<td>46.3*</td>
<td>40.7*</td>
<td>21.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morning tiredness</td>
<td>72.4‡</td>
<td>74.0†</td>
<td>58.2*</td>
<td>51.8*</td>
<td>6.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leg jerks</td>
<td>62.0‡</td>
<td>74.0†</td>
<td>46.3*</td>
<td>48.1†</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05 ADHD vs ADHD+         
†p < .05 ADHD/ADHD+ vs Manx    
‡p < .05 Manx vs other         
*p < .05 ADHD/ADHD+ vs other   
*p < .01 vs controls

All frequencies are shown as percentages.
ADHD refers to attention-deficit/hyperactivity disorder alone; ADHD+, ADHD with other psychiatric comorbidities; other, other psychiatric disorders; Manx, mood and anxiety disorders.
A number of studies have further separated subjective complaints of delayed sleep onset as reported by parents from objective measures of sleep latency in children, albeit with inconsistent results.11,12 Parental sleep questionnaires in our study focused specifically on differentiating problematic behaviors at bedtime from the actual time that it takes the child to fall asleep after he or she goes to bed. Analysis of parental responses showed no significant differences in sleep latency reported by parents among the studied groups of children but, rather, pointed to a higher number of children with ADHD whose parents reported bedtime struggles. These findings somewhat contradict previous findings by Corkum and coauthors,26 who showed that dyssomnias were more related to confounding factors such as comorbid psychiatric disorders and medication use than to ADHD per se.

Consistent with previously described findings,11,13,20-26 we found a higher prevalence of leg jerks reported by parents of children with ADHD with and without comorbid psychiatric disorders, with the latter group being particularly at risk for periodic leg movement disorder of sleep. These findings are similar to those reported by Corkum et al26 on the association between sleep-related involuntary movements and ADHD with comorbid anxiety. However, in their study, when comorbidity was taken into account, anxiety was found to be more highly associated with leg movements than ADHD. One possible explanation to Corkum’s and our findings is that the presence of anxiety and mood symptoms will exacerbate the occurrence of leg jerks in children with ADHD by lowering the threshold for involuntary movements in sleep through increased alteration of the balance between the dopaminergic and serotoninergic neurotransmitter systems that are critically involved in the control of movements, sleep, and affect.27,28

Recently, Stein and colleagues3 found a high correlation between sleep-problem factor scores and the majority of Child Behavioral Checklist scores in a general population of pediatric patients. A similar approach was used in our study to investigate the association of sleep complaints with the degree of psychopathology among children attending a psychiatric clinic and being treated for behavioral and emotional problems. Strong correlations were found between externalizing and internalizing symptoms and most of the sleep problems reported by parents. However, sensitivity to noises, excessive daytime sleepiness, and fear of the dark correlated with internalizing symptoms only. The reason for such differing relationships is unclear. Excessive daytime sleepiness was also associated with the severity of depression and somatization and was less likely to be associated with symptoms of poor impulse control or hyperactivity. An association between symptoms of sleep-disordered breathing and hyperactivity has been noted in children.4,12 However, the present survey did not reveal the anticipated strong association between snoring and symptoms of inattentiveness, as measured by the BASC in our sample of children. Such findings could merely reflect the underlying and preexisting burden of psychiatric illness in the population, such that milder features, e.g., a decreased ability to sustain attention on a task, may already be compromised to an extent that will not allow for further detection of the effect of snoring.

Before we address the methodologic limitations of the study, we should point out that our exploratory approach in no way aimed to provide information on the mechanisms mediating the interactions between sleep disturbances and psychiatric symptoms in children. However, similar to the scarce published evidence, the present survey revealed strong correlations between sleep duration, restless sleep, frequency of nocturnal awakenings, and the severity of psychiatric symptoms.25 One of the potential technical issues in this study concerns the fact that our cohort was not assessed using structured diagnostic interviews to establish their psychiatric diagnoses but, rather, relied on the diagnoses established through a routine clinical evaluation by a child psychiatrist, child psychologist, or both. In addition, there was a wide age range in our cohort, such that the interpretation of the results was potentially confounded by the effect of age on sleep characteristics and type of psychopathology. Furthermore, we cannot exclude the possibility that the reliance on subjective parental reports and the lack of objective sleep measurements in the sleep laboratory may lead to increased possibility of recall bias. Indeed, poor correlations between parental reports and polysomnographic or actigraphic assessments of sleep measures have been previously documented, especially among children with behavioral and neurodevelopmental disabilities.11,12,28 Most of the children in the current sample were receiving a variety of psychopharmacologic agents for management of their underlying psychiatric condition at the time of the survey. Although we have found no evidence that stimulants affect sleep architecture in children with ADHD,26 it is quite possible that many of the psychopharmacologic agents employed may impose alterations in sleep quality and structure and may have influenced the behavioral measures reported by the parents. Other confounding factors that could have influenced our outcome measures are chronic medical conditions, obesity, and intrinsic sleep disorders such as obstructive sleep apnea, periodic
limb movement disorder, or narcolepsy. Notwithstanding such theoretical limitations, the current study clearly confirms previous preliminary observations on the strong association between sleep disturbances and psychiatric disorders in children and further reveals that children with ADHD and comorbid anxiety or mood disorders have the highest prevalence of sleep morbidity.

In summary, restless sleep, long sleep latency, short sleep duration, and frequent nocturnal awakenings occur frequently among pediatric patients with psychiatric conditions, and their frequency and severity is dependent on the severity of psychiatric symptoms. Thus, these findings support the need for additional objective sleep assessments to better understand the interactions between homeostatic sleep physiologic regulation and the development of psychopathology in children. Furthermore, our findings support the need for ruling out primary sleep disorders as a potential contributing factor to behavioral and emotional morbidity in psychiatrically vulnerable children.

REFERENCES

APPENDIX

The Sleep Questionnaire

Child’s demographic information:
Name: ____________________________
Address: ____________________________
Telephone Number: ____________________________
Date of Birth: ____________________________
Gender: ____________________________
Ethnicity: ____________________________

Father’s demographic information
Profession: ____________________________
Highest level graduated from: JHS HS COL GRAD
Sleep problems: YES NO
Smoke: YES NO
Snore: YES NO

Mother’s demographic information:
Profession: ____________________________
Highest level graduated from: JHS HS COL GRAD
Sleep problems: YES NO
Smoke: YES NO
Snore: YES NO
Pregnancy: Normal Abnormal
Pregnancy: Full-term Pre-term

Child:
Medical problems:
Behavioral/Emotional Problems:
Medications:
Adenoids or Tonsils removed: YES NO
Vision problems: YES NO
Hearing problems: YES NO
Learning Problems: YES NO
Speech/language Problems: YES NO
Growth Delay: YES NO

Does child sleep alone share with 1 share with 2 share with >2
On average Child’s night sleep 4-6 hours 6-8 hours 8-10 hours > 10 hours
Time it takes to fall asleep <30 min 30 min - 1 hour, 1-2 hours >2 hours
Wake up time on school days 5-6 am 6-7 am 7-7:30 am after 7:30 am
Wake up time on weekends 6-7 am 7-8 am -9 am after 9 am
Bedtime on school days 7-8 pm 8-10 pm 10-11 pm after 11 pm
Bedtime on weekends 8-9 pm 9-11 pm 11 pm-12 am after 12 am.

Goes to sleep alone never sometimes often almost always
Requires parent to fall asleep never sometimes often almost always
Sleeps with others in one bed never sometimes often almost always
Needs a toy/object in order to sleep never sometimes often almost always
Eats or drinks during sleep never sometimes often almost always
Sleeps with lights on never sometimes often almost always
Bothered by noises at night never sometimes often almost always
Gets out of bed when unable to fall asleep never sometimes often almost always
Awakens during sleep never sometimes often almost always
Talks in sleep never sometimes often almost always
Walks in sleep never sometimes often almost always
Grinds teeth in sleep never sometimes often almost always
Has frightening dreams never sometimes often almost always
Rocks or bangs head in sleep never sometimes often almost always
Cries/screams during sleep never sometimes often almost always
Wets bed during sleep never sometimes often almost always
Snores never sometimes often almost always
Stops breathing in sleep never sometimes often almost always
Uses bathroom during night never sometimes often almost always
APPENDIX Continued.

<table>
<thead>
<tr>
<th>Behavior</th>
<th>never</th>
<th>sometimes</th>
<th>often</th>
<th>almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restless sleeper</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Jerk/moves legs in sleep</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Aching legs at bedtime</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Awakens in bad mood</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Feels sleepy during day</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Hs morning headaches</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Light sleeper/wakes up at minimal noise</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Falls asleep watching TV</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Refuses to go to bed</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Awakens in good mood</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Daytime mouth breather</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Rituals at bedtime</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Fears of dark</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Tired and difficult to get out of bed in the morning</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Sleeps with room door open</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Fears of sleeping alone</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Falls asleep at school</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Getting to bed is a struggles</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
<tr>
<td>Has seizures during sleep</td>
<td>never</td>
<td>sometimes</td>
<td>often</td>
<td>almost always</td>
</tr>
</tbody>
</table>