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Sleep Patterns and Sleep Problems among Preschool and School-aged Group Children in a Primary Care Setting

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Abstract

Objective: To describe sleep patterns and sleep problems among preschool and school aged group children in a primary care setting in Iran.

Material & Methods: This cross sectional study was conducted in two primary care pediatric clinics in Tehran from March 2006 to September 2006.

Findings: Sleep patterns of 215 children studied (101 were in preschool age group; 2-6 years old, and 114 were in primary school age group; 7-12 years old). Sleep problems were common in study group, as follows: bedtime problems 21.05%-56.44%, excessive daytime sleepiness 26.73%-42.98%, awakening during the night 13.86%-32.46%, regularity and duration of sleep 17.54%-27.72%, sleep-disordered breathing 10.53%-17.82%.

Conclusion: These high frequencies of sleep problems in children explains the importance and burden of sleep disorders in children which unfortunately are not noticed by primary care providers in Iran and inadequate attention to them may have negative consequences on a host of functional domains, including mood, behavior, school performance, and health outcomes.

Key Words: Sleep patterns, Sleep problems, Sleep screening, Pediatric sleep questionnaire, BEARS questionnaire

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Introduction

Sleep disturbances in children represent highly common phenomena that, in severe forms, can interfere with daily patient and family functioning. It is estimated that upwards of 25% of children experience a significant sleep problem at some point during childhood [1].

Numerous studies have shown that clinical sleep disorders are associated with significant morbidity, functional impairment, decreased quality of life, and substantial direct and indirect economic costs [2-4]. Despite this empirical evidence, inadequate attention is often paid by medical professionals to sleep disorders and their serious health consequences[5]. Interest in pediatric sleep problems continues to increase, yet further investigation is needed to develop empirically based detection and treatment of pediatric sleep disorders.

Although many sleep problems in infants and children are transient and self-limited in nature, certain intrinsic and extrinsic risk factors such as difficult temperament, chronic illness, and maternal depression may predispose some children to develop more chronic sleep disturbances [6].

The consequences of untreated sleep problems may include significant emotional, behavioral, and cognitive dysfunction [7-12]. The impact of childhood sleep problems is further intensified by their direct effect on parents' sleep, resulting in parental daytime fatigue, mood disturbances, and a decreased level of effective parenting [13].

Despite the magnitude and clinical importance of sleep issues, several studies have documented that there is a low level of recognition of sleep disorders by primary care physicians in both adults [14–15] and children [16,17]. For example, in a survey of over 600 community pediatricians, approximately 20% of the respondents did not routinely screen for sleep problems in school-aged children in well-child visit, about 25% of routinely screened toddlers and preschoolers for snoring, and less than 40% questioned adolescents directly about sleep habits, despite the respondents' acknowledgement of the importance of sleep's impact on health, behavior, and school performance [16].

In another study a validated pediatric sleep questionnaire used to identify a series of children with sleep-related symptoms at two community-based general pediatrics clinics and reviewed medical chart notes for the previous 2 years to determine how often sleep problems had been addressed. Fewer than 15% of patients had current chart notes that mentioned any of the questionnaire-defined sleep problems; diagnoses were mentioned for two of 86 patients and no treatments were discussed [17].

However, most epidemiologic studies of sleep patterns and sleep problems have been of Western children. Because there is no similar study in Iran, the purpose of the following study was to directly describe sleep patterns and sleep problems among preschool and school aged group children in a primary care setting in Iran.

Material & Methods

This study was conducted from March 2006 to September 2006 in two primary care pediatric clinics in Tehran, which serve primarily middle-income population. Each clinic has approximately 8,000 -10,000 primary care visits per year. Patients are primarily seen by two general pediatricians.

Study subjects were a convenience sample of patients between the ages of 2 and 12 years presenting for general medical problems with no sleep compliant or well child visits over the 6-month study period between April and September 2006. Subjects were included randomly if their parents agreed to cooperate in filling BEARS a sleep screening questionnaire (Appendix-A) and in the next step to complete a more detailed sleep evaluation questionnaire (DSEQ). Because adolescent age group's primary care provision is not absolutely by pediatricians in Iran so this age group are not studied.

The BEARS is a screening tool developed by the investigators of Brown University School of Medicine, Rhode Island Hospital, USA. It was designed to address the most common sleep issues in toddlers, preschoolers, and school aged children. It incorporates five basic sleep domains:

Bedtime Problems, including difficulty going to bed and falling asleep; Excessive Daytime Sleepiness, which includes behaviors typically associated with daytime somnolence in children; Awakenings during the night; Regularity of sleep/wake cycles (bedtime, wake time) and average sleep duration; and **S**noring. These domains are felt to reflect the most common presenting sleep complaints in children.

Detailed sleep evaluation questionnaire (DSEQ) used to have a comprehensive sleep information for each subject, which incorporates four major domains: Sleep history, Medical and Psychiatric history, School performance (for primary school-aged group), and Family's information.

BEARS screening tool prompts clinicians to ask parents an initial screening question about possible problems in each domain, eliciting a yes or no response then in the second step for all of the subjects a detailed sleep evaluation questionnaire was completed to describe the entire characteristics of child's sleep and any probable sleep problem. For example, if a parent responded 'yes' to sleep walking, the parents would be asked in the second step to describe how often the child walked during sleep in the last 2 weeks and whether other problems accompanied this compliant or not.

For having a Persian version of BEARS and DSEQ, before data collection the English version of each questionnaire translated to Persian by primary investigators and revised primarily by 2 people who were fluent in both English and Persian languages and then by 2 child neurologists and an adult psychiatrist who were expert in diagnosis and treatment of sleep disorders.

Patients are primarily seen by two general pediatricians. In the first visit all of the included subjects' parents explained about the importance of sleep problems screening in children and a written agreement taken, then BEARS questionnaire's items in five domains asked by general pediatricians. In the second phase by use of detailed sleep evaluation questionnaire (DSEQ) the entire characteristics of child's sleep and any probable problem in different domains of sleep disorders recorded. The latter questionnaire (DSEQ) completed in the first or follow up visit by parents under supervision of general pediatricians and paramedical health personnel. The information of these consecutive questionnaires used to describe the sleep patterns and problems among a sample of Iranian children.

The medical records for each BEARS or DSEQ were then independently reviewed by two child neurologists and child psychiatrists who were expert in sleep disorders to determine whether the recorded information indicated a definite sleep problem, a probable sleep problem, no problem, or insufficient information. In the event of a coding discrepancy between reviewers, each questionnaire was re-reviewed and a consensus was reached.

Based on study design 96 subjects were needed in pre-school age group (2-6 years old) and primary school age group (7-12 years old) children. And with estimation of 20% loss of subjects during follow up visits approximately 120 subjects in each group and 240 at whole calculated for entrance to study.

Data were entered into the *SPSS* version 15.0 and *NCSS* version 2007. Descriptive statistics were used to describe the sample as a whole including frequency counts and means (+/-SD). Chi square test used to compare proportions of binary variables and T-test used to compare means of scale variables between to age groups ($P<0.05$ considered significant).

Findings

A total of 215 children (2-12 years old) had both a screening visit with BEARS and also detailed sleep evaluation questionnaire (SEQ). From these subjects 101 were in preschool age group (2-6 years old); 49 female (48.8%) and 52 male (51.5%), and 114 were in primary school age group (7-12 years old); 58 female (50.9%) and 56 male (49.1%). Male to female ratio was not different between two age groups ($P=0.4$). The average age in preschool age group was 52.19 (±15.07) months old and in primary school age group was 107.13 (±19.34) months old.

In table 1 frequencies of probable or definite problems in each domain of BEARS screening

Table 1- Comparison of percentages of sleep problems in each domain of BEARS questionnaire among preschool and school-aged groups in Iran and their peers in United States

Domain of BEARS questionnaire	Preschool (2–6 years) %	School-aged (7–12 years) %	*P* value*	2-12 years % in United States
Bedtime problems	56.44%	21.05%	0.00	16.3%
Excessive daytime sleepiness	26.73%	42.98%	0.02	5.6%
Awakenings during the night	13.86%	32.46%	0.54	18.4%
Regularity and duration of sleep	27.72%	17.54%	0.00	5.7%
Sleep-disordered breathing	17.82%	10.53%	0.00	13.1%

**Chi square test used to compare percentages of sleep problem between preschool and school-aged children in Iran (P<0.05 considered significant). No statistical method is used to compare with United States findings*

Table 2- Frequency and percentages of general sleep history between preschool and school-aged groups.

	General Sleep History	Preschool (2–6 years) %	School-aged (7–12 years) %	*P* value
General Sleep History	The child's usual bedtime	22:52 pm (+/-0.99) hr	22.14 pm (+/-0.98) hr	0.5
	The child's usual wake time	8:30 am (+/-1.14) hr	6.55 am (+/-0.59) hr	0.001<
	Child takes a nap	47 (46.5%)	39 (34.2%)	0.1
	Does the child have a regular bedtime routine?	60 (59.4%)	70 (61.4%)	0.3
	Does the child have his/her own bedroom?	51 (50.5%)	61 (53.5%)	0.7
	Does the child have his/her own bed?	75 (74.3%)	96 (84.2%)	0.1
	Is a parent present when your child falls asleep?	77 (76.2%)	60 (52.6%)	0.9
	The amount of time the child spends in his/her bedroom before going to sleep (minutes)	22.52 (+/-13.33)	18.6 (+/-14.69)	0.03
General Sleep Problem	Child resists going to bed?	24 (23.8%)	27 (23.7%)	0.2
	Child has difficulty falling asleep?	22 (21.8%)	8 (7.0%)	0.1
	Child awakens during the night?	29 (28.7%)	22 (19.3%)	0.2
	After nighttime awakening, child has difficulty falling back to sleep?	1 (1%)	4 (3.5%)	0.8
	Child is difficult to awaken in the morning?	20 (19.8%)	26 (22.8%)	0.2
	Child is a poor sleeper?	9 (8.9%)	11 (9.6%)	0.1

Chi square test to compare percentages and t-test to compare means (P<0.05 considered significant)

questionnaire and also the comparison of percentages between preschool and school-aged groups in Iranian children and its comparison to United States findings is shown. The most common screening problem in preschool group was bedtime problems and in school aged group was excessive daytime sleepiness. The least common problem in preschool group was awakenings during the night and in school aged group was sleep disordered breathing. Bedtime problems, regularity and duration of sleep, and sleep-disordered breathing were significantly greater in preschool age group ($P<0.05$). Excessive daytime sleepiness was significantly greater in school age group ($P<0.05$). There was no significant difference in awakening during the night domain between two groups.

In table 2 general sleep history between preschool and school-aged groups are compared. The most common general problem in preschool group was child awakening during the night and in school aged group was resistance in going to bed. The least common problem in both groups was difficulty falling back to sleep after nighttime awakening. In this domain, child's usual wake up time was obviously later in preschool age group, and amount of time the child spent in his/her bedroom before going to sleep was also significantly greater in preschool than school aged group ($P<0.05$). Other items of general sleep were not significantly different.

The most common current sleep symptom in both age groups was kicking legs in sleep and the least common in both groups was sleep walking. The most common daytime symptom in preschool group was trouble getting up in the morning and in school aged group was napping after school, the least common daytime symptom in both groups was feeling weak or losing control of muscles with strong emotions and being unable to move when falling asleep or upon waking. There were no significant differences in items of sleep and daytime symptoms between preschool and school-aged groups (table 3). Items which related only to daytime symptoms in school aged group are not compared.

The most common past medical problem in both groups was frequent colds. There were no significant differences in items of past medical history between preschool and school-aged groups. In some items that no problem was recorded in one or both groups no comparison done.

The most common past psychiatric/ psychological problem in preschool group was learning disability and in school aged group was hyperactivity/ADHD. There were no significant differences in items of past psychiatric/ psychological history between preschool and school-aged groups. In some items that no problem was recorded in one or both groups no comparison done.

The most common sleep problem in family of both groups was snoring. The least common sleep problem in family of preschool group was sleep apnea and in school aged group was sleepwalking/sleep terror. In this domain, family history of insomnia, sleep apnea, restless leg syndrome, periodic limb movement disorder, and narcolepsy were significantly more common in school aged group than preschool group ($P<0.05$), family history of sleep talking was significantly more common in preschool aged group ($P<0.05$) and there was no differences in history of snoring and sleepwalking/sleep terrors in their families.

Discussion

This is the first study to directly describe sleep patterns and sleep problems among preschool and school aged group children in Iran. Children's sleep patterns and sleep problems were reported by parents using the same well-established instrument, the BEARS for screening sleep problems and SEQ for complete evaluation of sleep history.

In the current study, we found that sleep patterns in preschool children were significantly different from the school-aged children. Child's usual wake up time was obviously later in preschool age group, and amount of time the child spent in his/her bedroom before going to sleep was also significantly greater in preschool than school aged group. The difference in sleep patterns in children between the 2 age groups may be attributed to school schedules and homework load and sleep practices of the 2 groups.

Table 2: Frequency and percentages of current sleep and daytime symptoms between preschool and school-aged groups

	General Sleep History	Preschool (2–6 years) %	School-aged (7–12 years) %	*P* value
Current Sleep Symptoms	Difficulty breathing when asleep	10 (9.9%)	8 (7.0%)	0.5
	Snores	16 (15.8%)	22 (19.3%)	<0.001
	Restless sleep	19 (18.8%)	23 (20.2%)	0.1
	Sweating when sleeping	30 (29.7%)	18 (15.8%)	0.3
	Daytime sleepiness	23 (22.8%)	24 (21.1%)	0.7
	Poor appetite	39 (38.6%)	27 (23.7%)	0.1
	Nightmares	27 (26.7%)	22 (19.3%)	0.9
	Sleepwalking	4 (4.0%)	6 (5.3%)	0.03
	Sleeptalking	36 (35.6%)	42 (36.9%)	0.2
	Screaming in his/her sleep	11 (10.9%)	9 (7.9%)	0.1
	Kicks legs in sleep	46 (45.5%)	44 (38.6%)	0.2
	Wakes up at night	45 (44.6%)	37 (32.5%)	0.8
	Gets out of bed at night	31 (30.7%)	31 (27.2%)	0.2
	Trouble staying in his/her bed	25 (24.8%)	16 (14.1%)	0.1
	Resists going to bed at bedtime	33 (32.7%)	30 (26.3%)	0.5
	Grinds his/her teeth	24 (25.7%)	33 (28.9%)	<0.001
	Uncomfortable feeling in his/her legs; creepy-crawly feeling	14 (13.9%)	22 (19.3%)	0.1
	Wets bed	19 (18.8%)	9 (7.9%)	0.3
Current Daytime Symptoms	Trouble getting up in the morning	5 (5.0%)	43 (37.7%)	0.7
	Falls asleep in school	-	13 (11.4)	0.1
	Naps after school	-	56 (49.1%)	0.9
	Daytime sleepiness	2 (2.0%)	24 (21.1%)	0.03
	Feels weak or loses control of his/her muscles with strong emotions	1 (1.0%)	11 (9.6%)	0.2
	Reports unable to move when falling asleep or upon waking	1 (1.0%)	11 (9.6%)	0.1
	Sees frightening visual images before falling asleep or upon waking	2 (2.0%)	22 (19.3%)	0.2

Chi square test used to compare percentages (P<0.05 considered significant).

The earlier school start time necessitates the school-aged children to get up earlier for the morning class. Second, it is well known that school-aged children in have homework which influences their ordinary practices such as sleep. Third, in the preschool sample 76.2% of children routinely shared a parent to fall to sleep compared to 52.6% of school-aged children.

Room sharing or bed sharing with parents may also contribute to later bedtimes, difficulty going to sleep and greater amount of time the child spends in his/her bedroom before going to sleep in preschool children, because children's sleep patterns are more likely to be influenced by the sleep patterns of cosleeping parents.

It is important to remember in this study subjects who screened had come to primary care visits for another medical conditions with no sleep compliant, and at the end it cleared that a significant number of children had hidden sleep problems; for example in screening phase probable sleep problems were as follows: bedtime problems 21.0%-56.4%, excessive daytime sleepiness 26.7%-43.0%, awakening during the night 13.9%-32.5%, regularity and duration of sleep 17.5%-27.7%, sleep-disordered breathing 10.5%-17.8%. Interestingly, the frequencies of hidden sleep problems in a sample of Iranian children who screened are significantly greater than their peers in United States (table 1) [6].

Furthermore, the percentage of subjects identified as having sleep problems in domains of BEARS during screening visits was similar in our study to the prevalence of those same problems cited in the literature. For example, a number of studies have suggested that the prevalence of bedtime resistance in early school-aged children is in the range of 15% to 27% [13,18], which is similar to 21% in Iranian sample. Similarly, the percentage of children identified by the BEARS as having significant snoring (10.5%-17.8%) was similar to the prevalence of frequent snoring for that age group reported in previous studies [6,19,20]. This further supports the importance of screening probable sleep problems in Iranian children.

In addition, comparison of percentages of probable sleep problems in each domain of BEARS questionnaire between preschool and school-aged groups indicates bedtime problems, regularity and duration of sleep, and sleep-disordered breathing were greater in preschool age group; the authors suppose these differences are due to [1] no necessity to strict discipline of ordinary life (bedtime problems, and regulation and duration of sleep), and [2] more activity of lymphatic system and hypertrophy of adenoids and tonsils (sleep disordered breathing) in preschool group. Excessive daytime sleepiness was greater in school age group; may be due to obligation to get up early in the morning which is not compatible with their biological circadian rhythms. There was no difference in awakening during the night domain between two groups which may explain the role of other factors such as family environment and sleep habits in the community. Although there is no similar study in literature to compare BEARS findings in preschool and school-aged children, but frequencies of problems which have found in this study are similar to other studies about sleep problems in different age groups in children [1,21,22, 23].

Conclusion

In conclusion, these high frequencies of sleep problems in children explains the importance and burden of sleep disorders in children which unfortunately are not noticed by primary care providers in Iran and inadequate attention to them may have negative consequences on a host of functional domains, including mood, behavior, school performance, and health outcomes. The authors suppose the reasons for this high frequency in Iranian children are lower performance of primary health care services in Iran, and higher prevalence of different stressors which aggravate the sleep hygiene in Iran. Finally, use of sleep screening questionnaires is highly recommended to primary care providers in Iran.

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References

1. Mindell JA, Owens JA, Carskadon MA. Development features of sleep. Child Adoles Psychiatr Clin NA. 1999;8(4):695-725.
2. Dement WC, Mitler MM. It's time to wake up to the importance of sleep disorders. JAMA. 1993;269(12):1548-50.
3. Young T, Paulta M, Dempsey J, et al. The occurrence of sleep-disordered breathing among middle-aged adults. N Engl J Med. 1993;328(17):1230-5.
4. Leger D. Public health and insomnia: economic impact. Sleep. 2000;23(suppl 3): S69.
5. Meissner HH, Riemer A, Santiago SM, et al. Failure of physician documentation of sleep complaints in hospitalized patients. West J Med. 1998;169(3):146-9.
6. Owens JA, Dalzell V. Use of the 'BEARS' sleep screening tool in a pediatric residents' continuity clinic: a pilot study. Sleep Med. 2005;6(1):63-9.
7. Carskadon MA. Patterns of sleep and sleepiness in adolescents. Pediatr. 1990; 17(1):5-12.
8. Ali NJ, Pitson D, Stradlin JR. Natural history of snoring and related behaviour problems between the ages of 4 and 7 years. Arch Dis Child. 1994;71(1):74-6.
9. Minde K, Faucon A, Falkner S. Sleep problems in toddlers: effects of treatment on their daytime behavior. J Am Acad Child Adolesc Psychiatr. 1994;33(8):1114-21.
10. Wolfson AR, Carskadon MA. Sleep schedules and daytime function in adolescents. Child Dev. 1998;69(4):875-87.
11. Kahn A, Van de Merckt C, Rebuffat E, et al. Sleep problems in healthy pre-adolescents. Pediatr. 1989;84(3):542-6.
12. Valent F, Brusaferro S, Barbone F. A case-crossover study of sleep and childhood injury. Pediatr. 2001;107(2):E23.
13. Gelman VS, King NJ. Wellbeing of mothers with children exhibiting sleep disturbance. Austrian J Psychol. 2001; 53(1):18-22.
14. Meissner HH, Riemer A, Santiago SM, et al. Failure of physician documentation of sleep complaints in hospitalized patients. West J Med. 1998;169(3):146-9.
15. Haponik EF, Frye AW, Richards B, et al. Sleep history is neglected diagnostic information challenges for primary care physicians. J Gen Intern Med. 1996; 11(12):759-61.
16. Owens JA. The practice of pediatric sleep medicine: results of a community survey. Pediatr. 2001;108(3):e51.
17. Chervin RD, Archbold KH, Panahi P, et al. Sleep problems seldom addressed at two general pediatric clinics. Pediatr. 2001; 107(6):1375-80.
18. Blader JC, Koplewicz HS, Abikoff H, et al. Sleep problems of elementary school children: a community survey. Arch Pediatr Adolesc Med. 1997;151(5):473-80.
19. Ali NJ, Pitson DJ, Stradling JR. Snoring, sleep disturbance, and behaviour in 4-5 year olds. Arch Dis Child. 1993;68(3): 360-6.
20. Gialason T, Benediktsdottir B. Snoring, apneic episodes, and nocturnal hypoxemia among children 6 months to 6 years old. Chest. 1995;107(4):963-6.
21. Redline S, Tishler PV, Schluchter M, et al. Risk factors for sleep disordered breathing in children. Associations with obesity, race, and respiratory problems. Am J Respir Crit Care Med. 1999;159(5 Pt 1): 1527-32.
22. Owens JA, Spirito A, McGuinn M, et al. Sleep habits and sleep disturbance in elementary school-aged children. Dev Behav Pediatr. 2000;21(1):27-36.
23. Lavigne JV, Koplewicz HS, Abikoff H, et al. Sleep and behavior problems among pre-schoolers. J Dev Behav Pediatr. 1999; 20(3):164-70.

Appendix A: BEARS sleep questionnaire

Domain of BEARS	Preschool (2–5 years)	School-aged (6–12 years)	Adolescent (13–18 years)
Bedtime problems	Does your child have any problems going to bed? Falling asleep?	Does your child have any problems at bedtime? (P) Do you have any problems going to bed? (C)	Do you have any problems falling asleep at bedtime? (C)
Excessive daytime sleepiness	Does your child seem over tired or sleepy a lot during the day? Does she still take naps?	Does your child have difficulty waking in the morning, seem sleepy during the day or take naps? (P) Do you feel tired a lot? (C)	Do you feel sleepy a lot during the day? in school? while driving? (C)
Awakenings during the night	Does your child wake up a lot at night?	Does your child seem to wake up a lot at night? Any sleepwalking or nightmares? (P) Do you wake up a lot at night? Have trouble getting back to sleep? (C)	Do you wake up alot at night? Have trouble getting back to sleep? (C)
Regularity and duration of sleep	Does your child have a regular bedtime and wake time? What are they?	What time does your child go to bed and get up on school days? weekends? Do you think he/she is getting enough sleep? (P)	What time do you usually go to bed on school nights? Weekends? How much sleep do you usually get? (C)
Sleep-disordered breathing	Does your child snore a lot or have difficulty breathing at night?	Does your child have loud or nightly snoring or any breathing difficulties at night? (P)	Does your teenager snore loudly or nightly? (P)

B, bedtime problems; E, excessive daytime sleepiness; A, awakenings during the night; R, regularity and duration of sleep; S, sleep- isordered breathing; P, Parent C, Child