Correspondence

Sleep and child mental health

To the Editor

Mental health of children and adolescents is neglected worldwide. However, this unfortunate trend is more obvious in developing countries where there is relatively a dearth of literature and research on children mental health are scarce. The paper by Marwan M. Al-Sharbati,[1] is timely and offers certain recommendations if followed by parents and teachers who are themselves parents, alike may result in early identification, proper intervention and improvement in the sleep pattern of children. As a corollary, other disturbed behaviors identified in this research such as underachievement in studies and mood fluctuations will also return to normal limits. However, there are some minor concerns that need proper consideration. Although the number of children manifesting sleep problems is 80 (28.9%), only 52 children (18.8%) (Table 1) were sleeping after 10 p.m., in the night. It simply means that sleeping time per se is not the only cause for deterioration in children performance, sleepiness, fatigue, and labile moods. If it is so, the author should address this important point in discussion and look for other possible etiologies. The presentation of table 2 which is slightly confusing. For example, the subcategory of sleep descriptive variables are shown ... What is "poor" poor sleepers with sleep problems versus "good" good sleepers without sleep problems are not defined but if it is so as I have clarified then "poor" and "good" should have been kept under one column. Further, the shown chi-square analysis for class I, II and III and so for school performance (high, average and poor (3 by 2 table) should have degrees of freedom 2, rather 1. From the perspective of this research and the tremendous importance of sleep in our daily life, I would like to comment briefly about sleep and sleep disorders. Sleep is a normal rhythmic complex phenomenon and essential for good human health. Adequate sleep, which definitely varies according to the age, is recommended to all human beings (and animals also) for proper development, growth, cognition and learning. Normally an adult should sleep 6-8 hours, while short and long sleepers have variable total sleep time. Sleep has 5 distinct stages, which are measured by polysomnography. These stages are rapid eye movement (REM), and 4 stages of nonrapid eye movement (NREM) that is 1, 2, 3, and 4. Different sleep stages have their own characteristics, for instance stage 2 of NREM is characterized by specific EEG waves of sleep spindles and K complexes while REM sleep has typical story-like dreams, which occupies approximately 20-25% of total sleep. These sleep stages also have characteristics temporal organization as well. For instance REM sleep occurs repeatedly throughout the night alternating with NREM sleep approximately every

Table 1 - Classification of sleep disorders

Primary sleep disorders
Dyssomnias
Primary insomnia
Primary hypersomnia
Narcolepsy
Breathing-related sleep disorders
Circadian rhythm sleep disorder (formerly sleep-wake schedule disorder)
Dyssomnia not otherwise specified
Parasomnias
Nightmare disorder (formerly dream anxiety disorder)
Sleep terror disorder
Sleepwalking disorder
Parasomnias not otherwise specified.
Sleep disorders related to another mental disorder
Insomnia related to another mental disorder
Hypersomnia related to another mental disorder
Other sleep disorders
Sleep disorder due to a general medical condition
Substance-induced sleep disorder

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Table 1 - The distribution of sleep pattern according to schools and sex, with the associated behavioral problems.

Descriptive variables	Sleep pattern Poor n (%)	Good n (%)	Total n
*School**			
I	26 (28.6)	65 (71.4)	91
II	17 (18.7)	74 (81.3)	91
III	37 (38.9)	58 (61.1)	95
Sex†			
Boys	50 (27.6)	131 (72.4)	181
Girls	30 (31.3)	66 (68.8)	96
School performance‡			
High	28 (20.3)	110 (79.7)	138
Average	25 (33.8)	49 [illegible]	74
Poor	27 (41.5)	38 [illegible]	65
Sleepiness and fatigue§			
Present	28 (35)	32 [illegible]	60
Absent	52 (65)	165 [illegible]	217
Mood fluctuations[1]			
Present	17 (21.3)	10 [illegible]	27
Absent	63 (78.8)	187 [illegible]	250

*χ^2 for linear trend = 3.157, df = 1, P>0.05; data are equivocal but with a possible upward trend in odds ratio especially between 2 and 3.
†χ^2 = 0.04, df = 1, P>0.05
‡χ^2 for linear trend = 8.795, df = 1, P<0.05
§χ^2 = 12.8, df = 1, P=0.001
[1]χ^2 = 16.88, df = 1, P=0.000

Reply from the Author

Thanks to Dr. Naseem Akhtar Qureshi, for his valuable remarks and comments concerning my paper entitled "Sleep problems among pupils in Benghazi, (Libya. Saudi Med J 2002; 23: 1105-1109" that signifies his interest in this vital topic. However, I would like to answer briefly the queries mentioned in his letter. Delayed sleep time (after 10:00 p.m.) caused by poor parental control, in my opinion, is the main cause of sleep problems and consequent behavioral disturbances. Firstly, it affected the majority of the pupils suffering from sleep problems (52 out of 80, 65%); secondly, although the rest (28, 35%) showed other sleep problems (as nightmares, sleepwalking, sleeptalking, insomnia), (with the exception of insomnia) they do not cause major effect on daytime functioning.[2] Being a pilot study in this field, I wanted to attract the readers' attention to the most common problem encountered in this study, and what I see frequently in the child psychiatry clinic, namely the extrinsic sleep problem caused by (unhealthy) environment, which is attributed to the inappropriate following of the parents to their children, who do not advice them to sleep early (due to ignorance, negligence, or unawareness), and letting them viewing the TV programs late in night. If this message could be received and accepted, then it is easy to rectify the situation by proper guidance [illegible] other problems (as insomnia) [illegible] secondary, organic or non organic [illegible] picture, and will divert the [illegible] commonly encountered problems [illegible] in specialized clinics only. In [illegible] issue needs another study to [illegible] information (concerning insomnia [illegible]) extensive interviewing of the pupils, [illegible] by examination and investigations [illegible] relevant information from the parents [illegible] Table 2 was presented originally in such a way that [illegible] cell of the first column was divided by an oblique line from the upper left to lower right [illegible] situated in the upper triangle [illegible] total), while the descriptive variables [illegible] categories (school, sex and [illegible] subcategories, it seems that this has been changed during the process of printing, however [illegible] that table will clarify the situation with ease [illegible] also the degrees of freedom in the [illegible] III and for school performance [illegible] by 2 Table), since this is a [illegible] which does not follow the traditional [illegible]

[illegible]

order to reduce the suffering of poor sleep and prevent its serious problems.

Thanks again for Dr. Naseem A. Qureshi, for raising these interesting points.

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8. http://www.sjsu.edu/faculty/gerstman/EpiInfo/bin-trend.htm

Erratum

In manuscript “Paradoxical response to anti tuberculous drugs”, Saudi Med J 2002; Vol. 23 (12) 1549-1551, Table 1 should have appeared as below:

Table 1 - Demographic, clinical and paradoxical response of patients.

n	Age (year)	Presentation	Ways of diagnosis	Site of PR	How PR presents	Onset of PR (months)
1	23	PUO treated with anti-TB trial	*LN biopsy	LN	Appearance of new LN in the right supraclavicular	2
				Skin	Cold abscess	4
2	24	Left cervical LN enlargement	*LN biopsy	LN	Appearance of new LN	9
3	23	Left supraclavicular LN enlargement	*LN biopsy	LN	LN increase in size	2
4	25	Right supraclavicular and hilar LN enlargement by CXR	*LN biopsy	LN	Right hilar LN increase in size and appearance of new paratracheal LN	4
5	21	Fever, hemoptysis, night sweating, CXR right upper zone infiltrates	Sputum AFB	LN	Appearance of left supraclavicular	4
6	26	Cough, hemoptysis, CXR left upper zone infiltrates	Sputum AFB	Pulomonary	Left upper lobe opacity increase and appearance of new with upper lobe opacity	1

*excisional biopsy taken for all.
LN - lymph node, CXR - chest x-ray, AFB - acid fast bacilli, TB - tuberculosis, PR - paradoxical response, PUO - pyrexia of unknown origin