

子どもの早起きをすすめる会 HP開設10年を迎えて



東京ベイ浦安市川医療センター CEO(管理者)
神山 潤

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Perspective

Child sleep in Japan perspective: based on the experience during these 10 years

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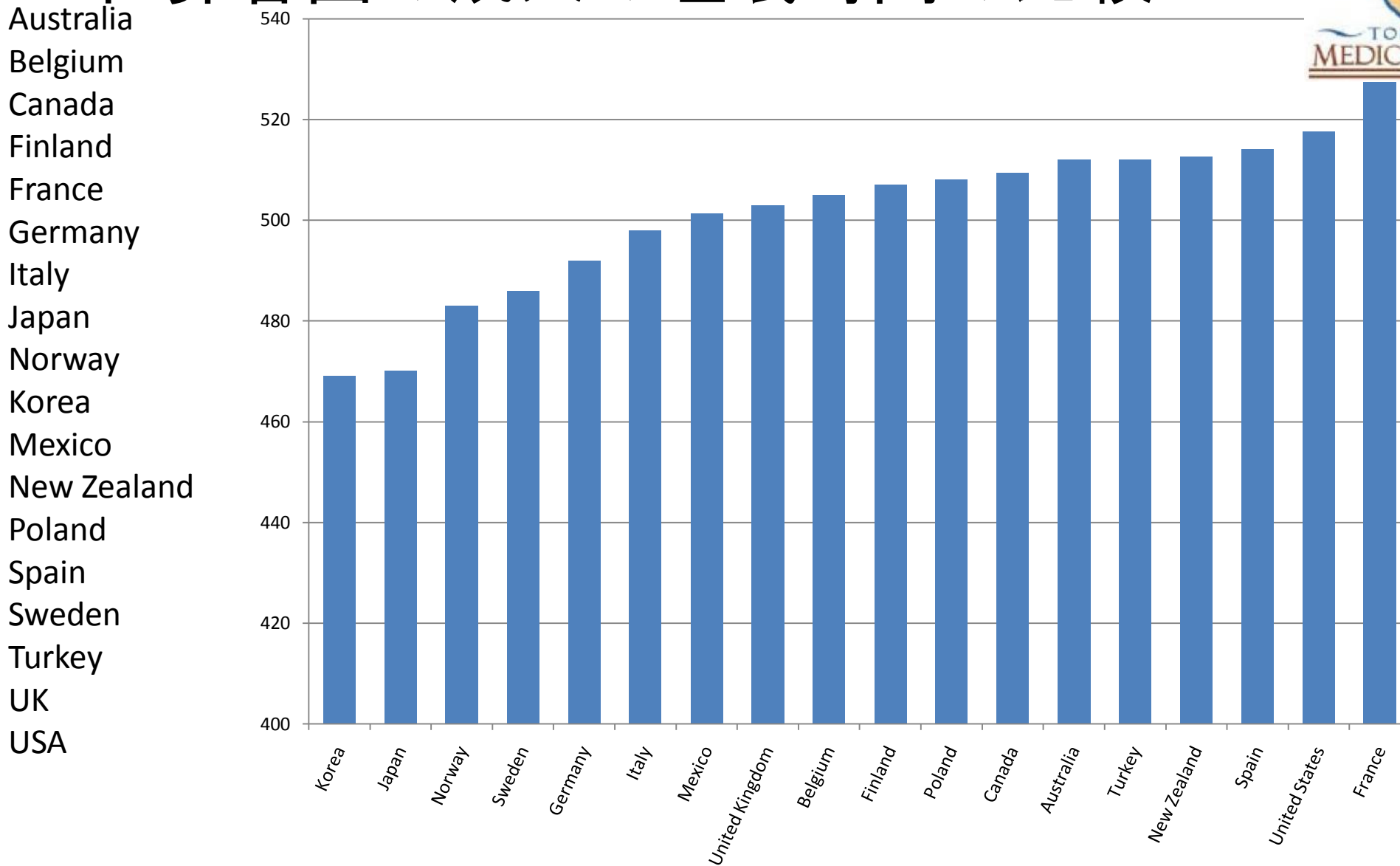
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世界各国の成人の睡眠時間の比較



TOKYO BAY
MEDICAL CENTER



Sleep Duration and Health in Young Adults

Andrew Steptoe, PhD, DSc; Victoria Peacey, MSc; Jane Wardle, PhD



Background: Both long and short sleep durations have been associated with negative health outcomes in middle-aged and older adults. This study assessed the relationship between sleep duration and self-rated health in young adults.

Methods: Using anonymous questionnaires, data were collected from 17 465 university students aged 17 to 30 years who were taking non-health-related courses at 27 universities in 24 countries. The response rate was greater than 90%. Sleep duration was measured by self-report; the health outcome was self-rated health; and age, sex, socioeconomic background, smoking, alcohol consumption, body mass index, physical activity, depression (Beck Depression Inventory), recent use of health services, and country of origin were included as covariates.

Results: Sixty-three percent of respondents slept for 7 to 8 hours; 21% were short sleepers (6%, <6 hours;

15%, 6-7 hours); and 16% were long sleepers (10%, 8-10 hours; 6%, >10 hours). Compared with the reference category (7-8 hours), the adjusted odds ratio of poor health was 1.56 (95% confidence interval [CI], 1.22-1.99) for respondents sleeping 6 to 7 hours and 1.99 (95% CI, 1.31-3.03) for those sleeping less than 6 hours. The same significant pattern was seen when the results were analyzed separately by sex. When respondents from Japan, Korea, and Thailand (characterized by relatively short sleep durations) were excluded, the adjusted odds ratios were 1.33 (95% CI 1.03-1.73) and 1.62 (95% CI, 1.06-2.48) for those sleeping 6 to 7 hours and less than 6 hours, respectively. There were no significant associations between self-rated health and long sleep duration.

Conclusion: Our data suggest that short sleep may be more of a concern than long sleep in young adults.

Arch Intern Med. 2006;166:1689-1692

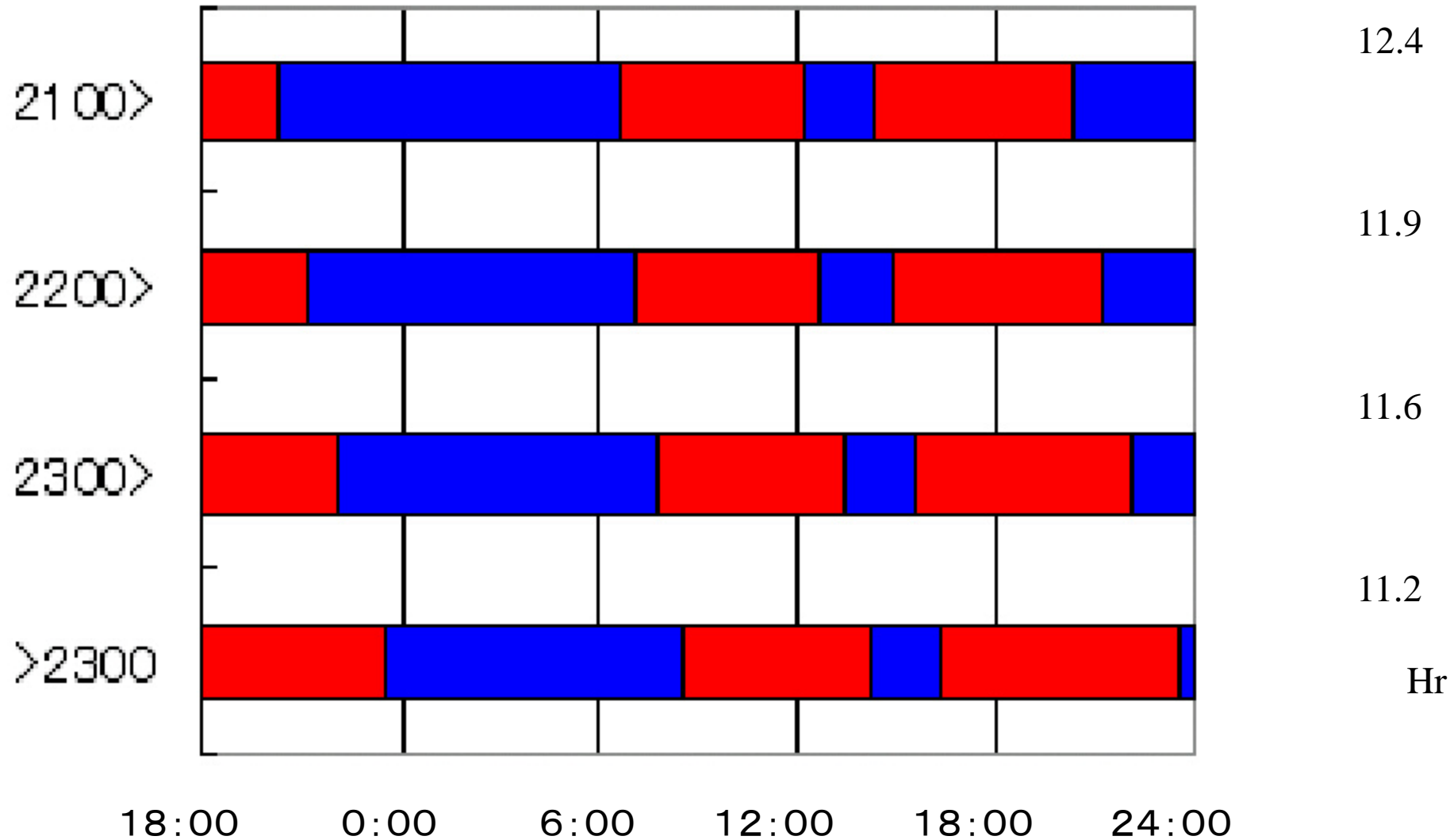
Table 1. Mean Sleep Duration and Self-rated Health by Country and Sex

Country	Men			Women		
	Mean Sleep Duration, h (95% CI)	No.	Poor Self-rated Health, %	Mean Sleep Duration, h (95% CI)	No.	Poor Self-rated Health, %
Belgium	7.69 (7.54-7.84)	244	7.4	7.90 (7.76-8.04)	261	7.3
Bulgaria	7.81 (7.68-7.93)	336	10.4	8.00 (7.88-8.12)	377	14.1
Colombia	7.14 (7.02-7.26)	378	4.0	7.24 (7.11-7.37)	325	6.5
England	7.40 (7.29-7.52)	372	8.3	7.37 (7.24-7.49)	330	10.0
France	7.55 (7.42-7.68)	312	6.4	7.73 (7.60-7.86)	322	13.4
Germany	7.39 (7.26-7.52)	309	10.4	7.60 (7.48-7.71)	372	6.5
Greece	7.86 (7.74-7.98)	350	3.7	7.87 (7.75-7.99)	371	7.5
Hungary	7.55 (7.39-7.71)	216	8.8	7.55 (7.42-7.68)	323	12.4
Iceland	7.21 (7.07-7.34)	294	7.1	7.56 (7.43-7.68)	337	6.8
Ireland	7.21 (6.98-7.44)	97	11.3	7.67 (7.55-7.80)	329	8.2
Italy	7.58 (7.49-7.67)	641	8.0	7.71 (7.64-7.78)	1092	14.5
Japan	6.20 (6.03-6.38)	172	38.4	6.09 (5.92-6.26)	186	45.7
Korea	6.80 (6.64-6.96)	208	35.6	6.86 (6.75-6.97)	440	42.7
Netherlands	7.79 (7.65-7.92)	275	8.7	7.92 (7.81-8.04)	404	8.9
Poland	7.24 (7.11-7.37)	312	4.5	7.42 (7.30-7.53)	390	10.5
Portugal	7.72 (7.61-7.83)	431	10.7	7.84 (7.73-7.95)	431	16.0
Romania	8.04 (7.91-8.16)	337	12.8	7.72 (7.60-7.84)	365	27.9
Slovak Republic	7.76 (7.66-7.86)	511	8.6	7.59 (7.50-7.68)	663	9.8
South Africa	7.26 (7.12-7.40)	268	14.2	7.71 (7.57-7.84)	289	12.8
Spain	8.02 (7.87-8.18)	215	6.0	7.82 (7.68-7.97)	257	7.4
Taiwan	6.61 (6.43-6.79)	162	18.5	6.51 (6.33-6.68)	171	31.0
Thailand	6.95 (6.82-7.08)	306	25.2	7.08 (6.98-7.18)	520	23.3
United States	7.17 (7.07-7.28)	463	4.3	7.08 (7.01-7.15)	1069	4.7
Venezuela	7.32 (7.19-7.44)	323	2.8	7.31 (7.18-7.44)	309	3.9
Total	7.45 (7.29-7.60)	7532	10.1	7.49 (7.32-7.65)	9933	13.6

Abbreviation: CI, confidence interval.

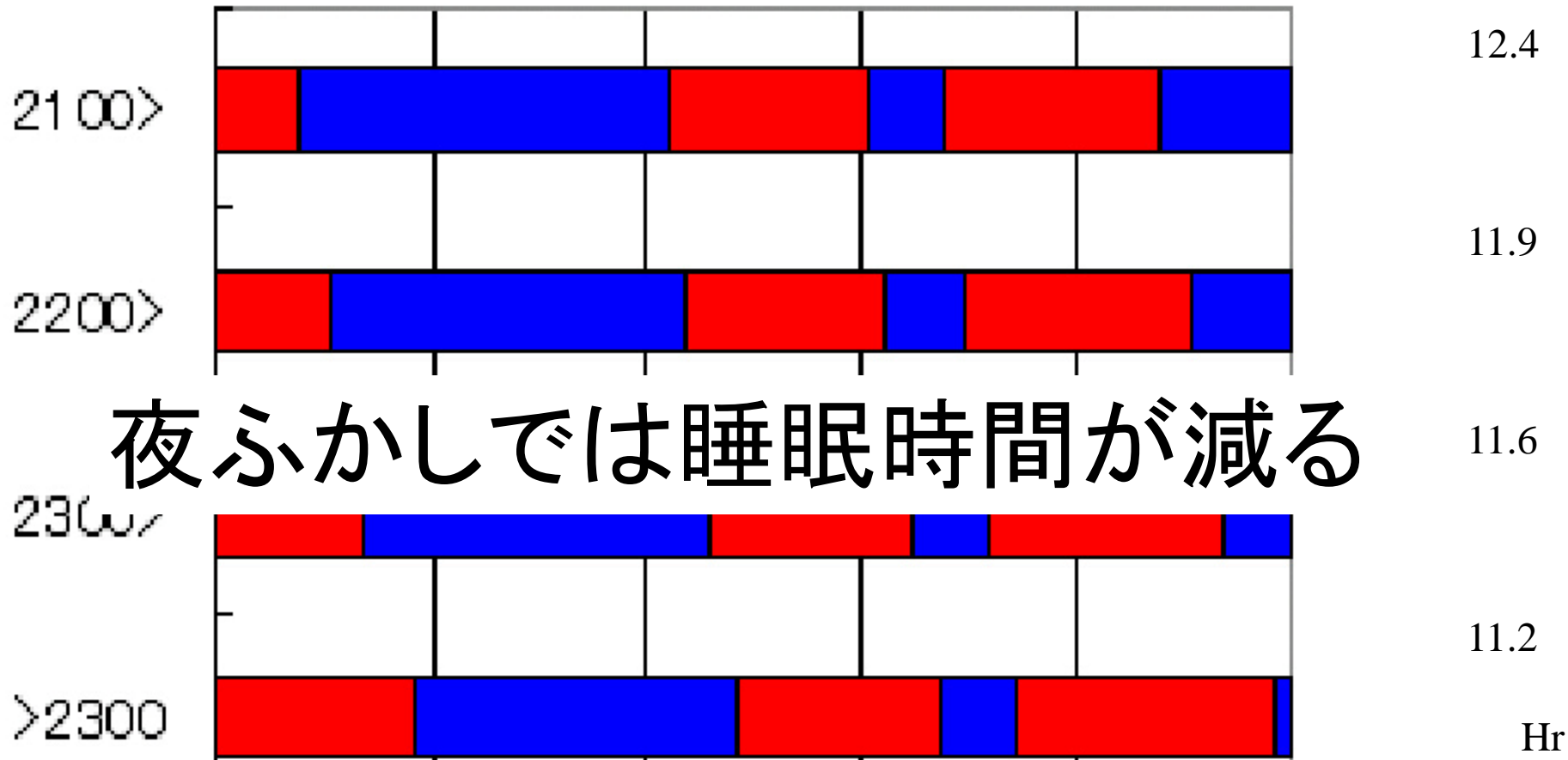
Sleep-wake cycle of 18mo babies

18:00 0:00 6:00 12:00 18:00 24:00



Sleep-wake cycle of 18mo babies

18:00 0:00 6:00 12:00 18:00 24:00



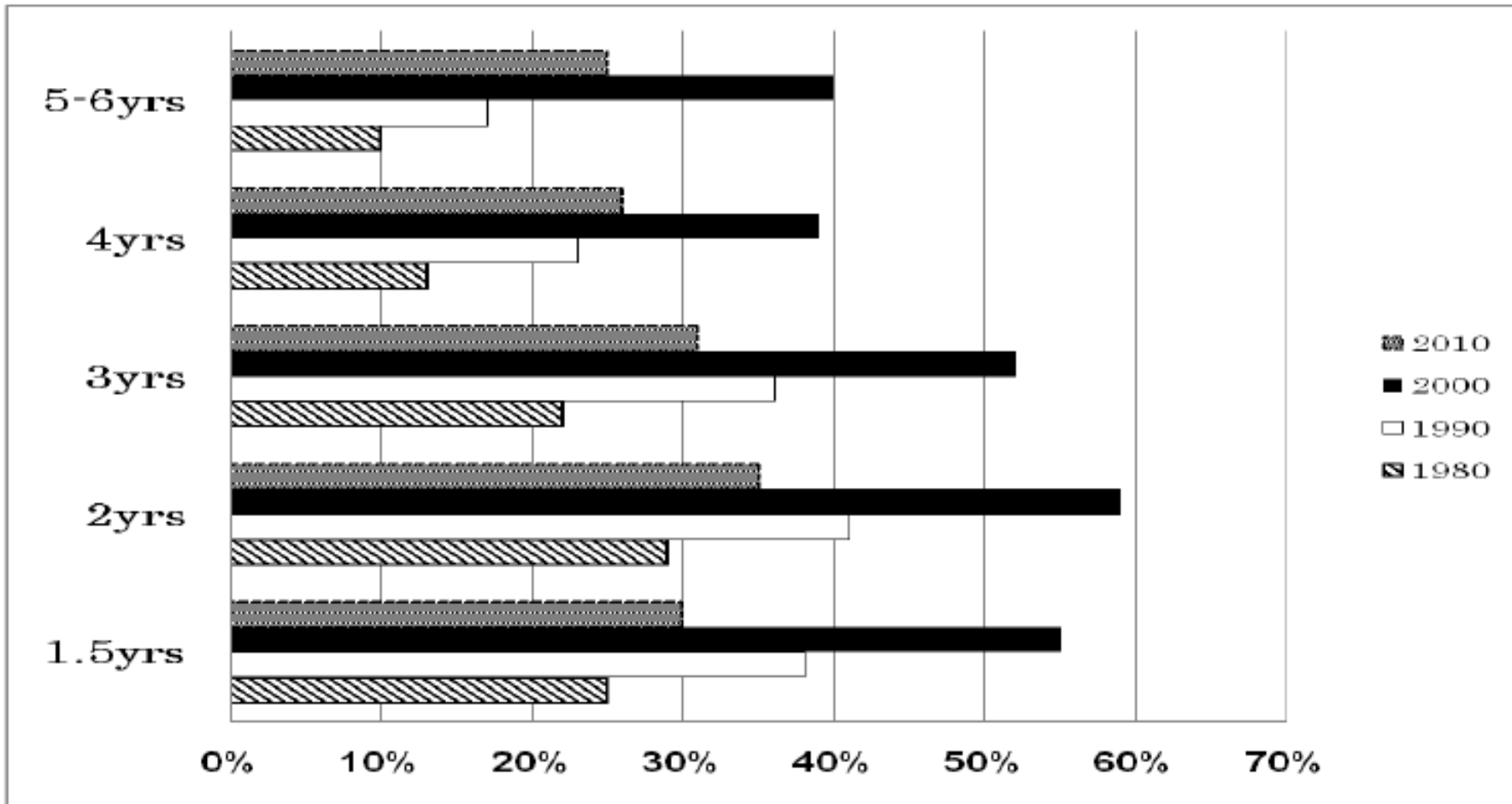
夜ふかしでは睡眠時間が減る

ヒトは昼間には寝にくい昼行性の動物！夜行性ではない！

18:00 0:00 6:00 12:00 18:00 24:00

就床時刻が午後10時以降の生後18-83カ月児は、2000年には49%であったが、2010年には30%となった。

Figure 1 Rates of children who fell into sleep 10 pm or later in Japan.



Made from The Japanese Society of Child Health. (2011) Investigation on the health of young children in 2010 (in Japanese). *The Journal of Child Health*, 70:448-457.

早起きサイトは2002年4月に開設した。

Figure 2 Top pages of hayaoki site (<http://www.hayaoki.jp>).



**Bright expressions of children
make this country beautiful.**



**Focusing on the sleep-wakeful
cycles of children in Japan, we
will try to improve living
circumstance of children.**



**We should support what we can
do now for the future of children.**

子どもたちの健やかな発育のために、 昼のセロトニン・夜のメラトニンを高める8か条

- 毎朝しっかり朝日を浴びて。
- ゴハンはしっかりよく噛んで。特に朝はきちんと食べて。
- 昼間はたっぷり運動を。
- 夜ふかしになるなら、お昼寝は早めに切り上げて。
- テレビビデオははじめをつけて、時間を決めて。
- 寝るまでの入眠儀式を大切に。
- 暗いお部屋でゆっくりおやすみ。
- まずは早起きをして、
悪循環(夜ふかし→朝寝坊→慢性の時差ぼけ→眠れない)
を断ち切ろう。

では対策は？

• スリープヘルス

基本は4+ α

- 朝の光を浴びること
- 昼間に活動すること
- 夜は暗いところで休むこと
- 規則的な食事をとること
- 眠気を阻害する嗜好品(カフェイン、アルコール)や過剰なメディア接触を避けること

「眠れません」
「では睡眠薬を」
から「では1日の
様子を伺わせて
ください。」に。

2006年に文部科学省が早寝早起き朝ごはん運動を開始。

Figure 3

In 2002, we started web site, **hayaoki site**. Hayaoki means “wake up early in the morning” in Japanese.



The Ministry of Education, Culture, Sports, Science and Technology has begun a **nation wide promotion** to keep bedtime early, to wake up early and to take breakfast in 2006.

<http://www.hayaoki.jp>



2008年には東京都も子どもの生活習慣確立プロジェクトを開始

Figure 4

1



2



1. It is important to wake up early in the morning and go to bed early in the night. Let's improve child daily life rhythms.

1. The reason why wake up early in the morning and go to bed early in the night are important.

2. Let's begin with waking-up early in the morning.

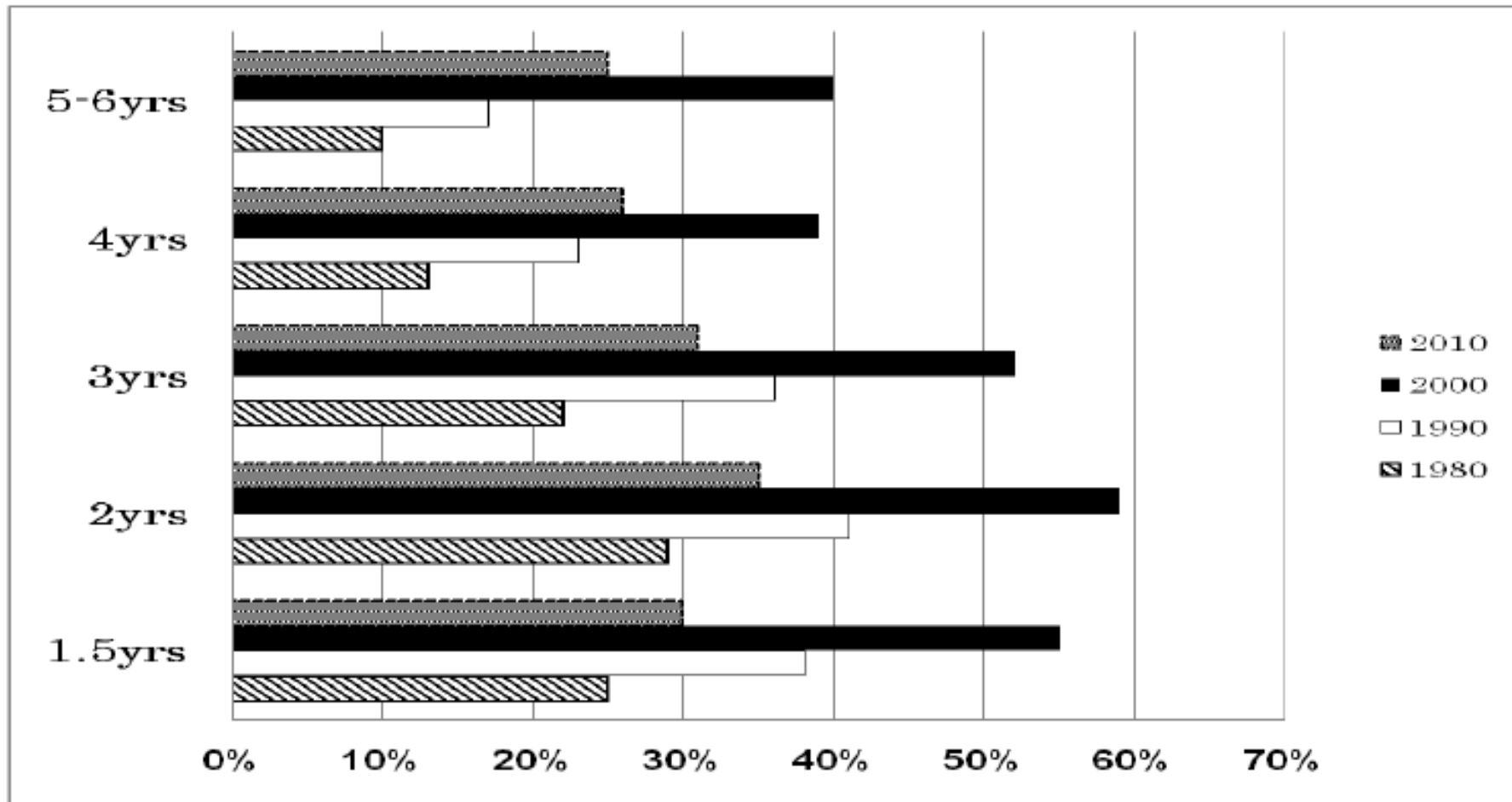
3. Let's check the whole life customs.

2. Don't you keep your kids awake until late in the night (until the time for adults)?

Graph shows rate of 3-year-old children who fell asleep later than 10 pm.

Day kid & night kid

Figure 1 Rates of children who fell into sleep 10 pm or later in Japan.



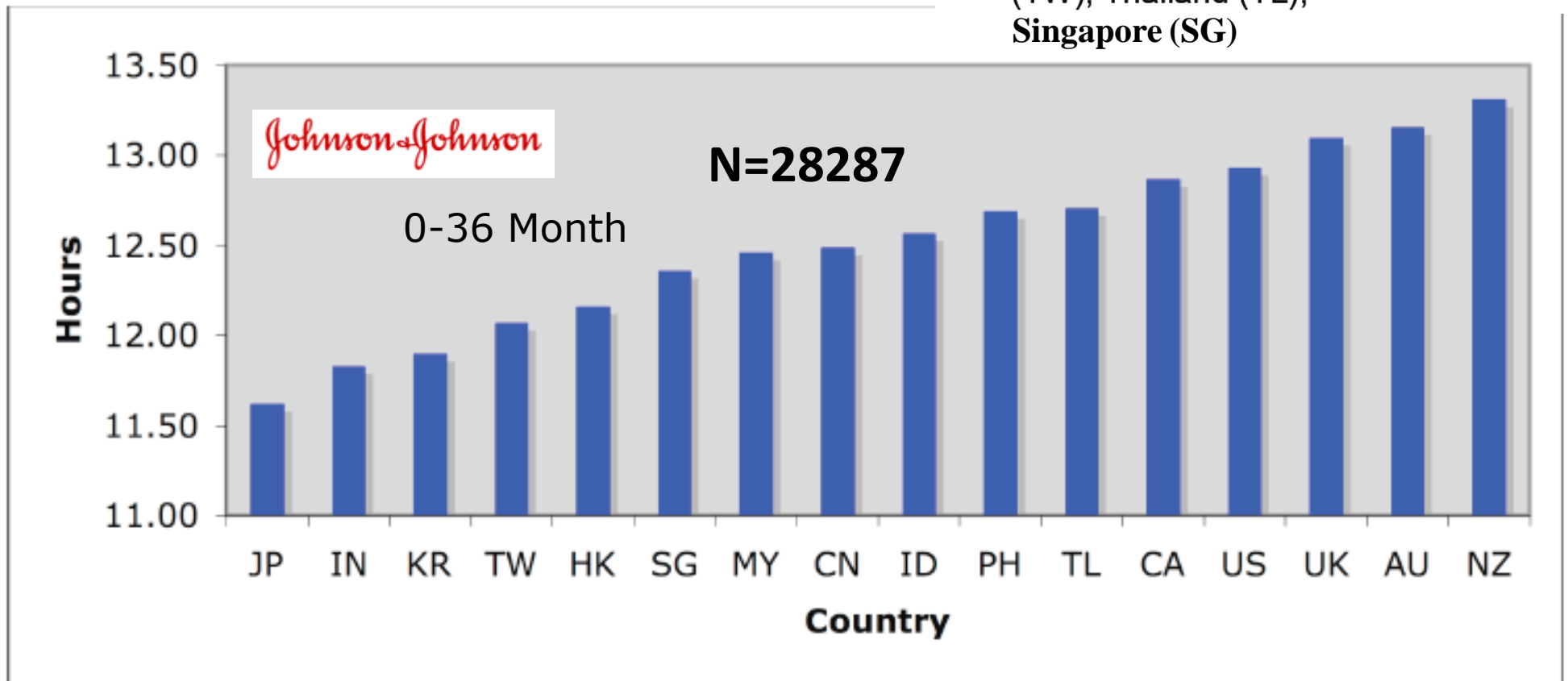
Made from The Japanese Society of Child Health. (2011) Investigation on the health of young children in 2010 (in Japanese). *The Journal of Child Health*, 70:448-457.



Total sleep time

Nighttime sleep + daytime sleep

- Predominantly Caucasian = 7960
 - United States (US), Canada (CA), United Kingdom (UK), Australia (AU), New Zealand (NZ)
- Predominantly Asian = 20,327
 - China (CN), Hong Kong (HK), India (IN), Indonesia (ID), Japan (JP), Korea (KR), Malaysia (MY), Philippines (PH), Taiwan (TW), Thailand (TL), Singapore (SG)



日本の赤ちゃんの睡眠時間は調査した17の国と地域では最短

日本の赤ちゃんの睡眠時間は短い但其の原因は昼寝の短さ！？
日本よりも長い昼寝をとっても、日本よりも早寝の国(赤矢印)がある。

Table 2 Sleep duration and sleep onset time among 17 countries/regions

	Nap duration	Total sleep duration (nap + night sleep)	Sleep onset time	
Australia	2.99	13.16	19:43	←
Canada	2.90	12.87	20:44	←
China	3.00	12.49	20:57	←
Hong Kong	3.14	12.16	22:17	
Indonesia	3.36	12.57	20:27	←
India	3.41	11.83	22:11	
Japan	2.19	11.62	21:17	
Korea	2.49	11.90	22:06	
Malaysia	3.27	12.46	21:47	
New Zealand	2.70	13.31	19:28	←
Philippine	3.53	12.69	20:51	←
Singapore	3.11	12.36	21:38	
Thai	2.81	12.71	20:53	←
Taiwan	3.34	12.07	22:09	
UK	2.61	13.10	19:55	←
USA	3.18	12.93	20:52	←
Vietnam	3.67	12.99	21:44	

睡眠に関する教育の欠如 下記の論文は卒前教育

Figure 5 Lack of education on sleep

[Mindell JA](#), [Bartle A](#), [Wahab NA](#), [Ahn Y](#), [Ramamurthy MB](#), [Huong HT](#), [Kohyama J](#), [Ruangdaraganon N](#), [Sekartini R](#), [Teng A](#), [Goh DY](#).

Sleep education in medical school curriculum: A glimpse across countries. [Sleep Med](#). 2011 Sep 15. [Epub ahead of print]

The Children's Hospital of Philadelphia and Saint Joseph's University, Philadelphia, PA, USA.

Abstract

BACKGROUND: The objective of this study was to assess the prevalence of education about sleep and sleep disorders in medical school education and to identify barriers to providing such education.

METHODS: Surveys were sent to 409 medical schools across 12 countries (Australia, India, Indonesia, Japan, Malaysia, New Zealand, Singapore, South Korea, Thailand, United States, Canada and Viet Nam).

RESULTS: Overall, the response rate was 25.9%, ranging from 0% in some countries (India) to 100% in other countries (New Zealand and Singapore). Overall, the average amount of time spent on sleep education is just under 2.5h, with 27% responding that their medical school provides no sleep education. Three countries (Indonesia, Malaysia, and Viet Nam) provide no education, and only Australia and the United States/Canada provide more than 3h of education. Paediatric topics were covered for a mere 17min compared to over 2h on adult-related topics.

CONCLUSION: These results suggest that there continues to be very limited coverage of sleep in medical school education despite an incredible increase in acknowledgement of the importance of sleep and need for recognition of sleep disorders by physicians.

In Japan, replies were obtained from 42 out of 80 medical colleges, and 28 out of 42 colleges had no education on child sleep. The average time on child sleep among 14 colleges was 40 minutes (range; 5-90 minutes).

Sleep Education in Pediatric Residency Programs: A Cross-Cultural Look

Jodi A. Mindell¹, Alex Bartle², Youngmin Ahn³, Mahesh Babu Ramamurthy⁴, Huynh Thi Duy Huong⁵, Jun Kohyama⁶, Albert Li⁷, Nichara Ruangdaraganon⁸, Rini Sekartini⁹, Arthur Teng¹⁰, Daniel Y.T. Goh¹¹

Abstract

Methods: Surveys were completed by directors of 152 pediatric residency programs across 10 countries (Hong Kong, India, Indonesia, Japan, Singapore, South Korea, Thailand, United States-Canada, and Vietnam).

Results: Overall, the average amount of time spent on sleep education is 4.4 hours (median = 2.0 hours), with 23% responding that their pediatric residency program provides no sleep education. Almost all programs (94.8%) offer less than 10 hours of instruction. The predominant topics covered include physiology/behavior, as well as normal sleep, sleep-related breathing disorders, parasomnias, and behavioral insomnia of childhood.

Conclusions: These results indicate that there is still a need for more efforts to include sleep-related education in all pediatric residency programs, as well as coverage of the breadth of sleep-related topics. Such education would be consistent with the increased recognition of the importance of sleep and under-diagnosis of sleep disorders in children and adolescents.

Sleep Education

Country	HK n=3	IN n=17	ID n=9	JP n=35	KR n=20	SG n=2	TH n=1	VN n=1	US- CA n=64	Total n=152
Specialty area (% of respondents reporting covering each topic)	%	%	%	%	%	%	%	%	%	%
Cardiology	33	47	0	17	10	50	0	0	19	26
ENT/Otolaryngology	0	29	0	20	30	100	0	0	31	26
Neurology	33	53	0	54	60	100	0	0	39	45
Respiratory	100	71	11	43	60	100	100	100	55	53
Physiology/Behavior	33	77	89	60	60	100	0	0	55	61
Psychiatry/Psychology	33	41	0	23	45	50	0	0	17	24
Total (mean minutes)	420	788	77	420	281	50	180	120	162	266
Total (median minutes)	420	240	90	60	210	50	180	120	120	120
Specialty topics (% of respondents reporting covering each topic)	%	%	%	%	%	%	%	%	%	%
Normal sleep	100	65	89	37	80	100	0	100	95	76
Delayed sleep phase disorder	67	12	44	17	30	50	0	0	58	38
Hypersomnia	100	41	33	20	55	50	0	0	73	52
Insomnia	100	35	33	23	45	50	0	100	59	45
Parasomnias	100	71	67	37	75	100	0	0	92	72
Behavioral insomnia of childhood	100	53	44	37	75	100	0	0	92	69
Sleep apnea	100	94	44	63	95	100	100	100	91	83
Sleep related rhythmic movements	100	41	22	29	95	50	0	0	64	49
Medical disorders	67	41	22	23	25	100	100	0	39	33

Note:

- Percentages presented are the percentage of respondents in each country that indicated a topic is covered in their curriculum
- Zeros indicate that respondents reported no coverage of sleep education in general or for a specific topic

手段と目的の取り違え



結論

- 今後も眠りに関する基本知識を、ご両親、小児科医、家庭医、小児保健に携わる人々、教師、看護師、政策決定者等に粘り強く伝える必要がある。