Co-sleeping and clinical correlates in children seen at a child guidance clinic

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ABSTRACT

Introduction: Co-sleeping or bed-sharing is a common practice that has been little researched. While often viewed as being "cultural" in nature, there is a suggestion that it may be a parental response to sleep problems. Some studies link co-sleeping with behavioural and temperamental difficulties. The objectives of the current study were to determine the prevalence of co-sleeping and how they relate to sleeping problems among a cohort of children and adolescents seen in a child guidance clinic.

Methods: Parents or guardians of all new patients seen at the child guidance clinic were asked to complete a questionnaire upon their consent to participate in the study. The questionnaire included socio-demographical data and frequency of sleep problems in the past six months. A list of nine common sleep problems was included.

Results: The prevalence of co-sleeping was found to be 72.7 percent. The children who co-sleep were significantly younger and there was a decrease in the practice with increasing age. Sleep starts and nightmares were significantly more among those sleeping alone.

Conclusion: Co-sleeping was not associated with significant sleep problems in our cohort. Co-sleeping may have been initiated in response to an existing sleep problem but eventually resolved the problem. If co-sleeping is not permitted, the sleep problem could be compounded, giving rise to a higher prevalence of sleep starts and nightmares among those in our cohort who slept alone.

Keywords: adolescents, bed-sharing, child guidance, co-sleeping, sleep problems

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INTRODUCTION

Co-sleeping, sometimes referred to as bed-sharing, is an accepted cultural and parenting practice in many societies[1]. Few studies have studied the prevalence and effects of the practice. Schachter et al, in sampling 175 cultures, determined that the co-sleeping prevalence in early childhood ranged from 10% to 100%[2]. A study in India found that it was a traditional cultural practice prevalent in 93% of healthy school-going children seen in a general paediatric practice[3]. In Sweden, according to Welles-Nystrom, co-sleeping is perceived as a "normal family activity" with Swedish children often co-sleeping with both their parents until school age[4]. In another retrospective study among Caucasian college students, 6.3% of women and 11.9% of men reported that they co-slept during the entire first year after birth, and a greater percentage of men reported that they co-slept with their parents at older ages[5].

In cultures where it is not an accepted practice, co-sleeping may be a parental response to ongoing night awakenings and one or more sleep problems in children[6]. There are also medical factors such as childhood illnesses and central nervous system impairment that increase the possibility of bed-sharing[7]. There have not been any local studies in Singapore on the prevalence of co-sleeping. The objectives of the current study were to determine the prevalence of co-sleeping and how they relate to sleeping problems among a cohort of children and adolescents seen in a child guidance clinic (CGC).

METHODS

The study was conducted in the CGC, which is the largest centre providing psychiatric assessment and treatment for children and adolescents with a wide range of emotional and behavioural conditions in Singapore. Psychiatrists at this clinic see patients aged 19 years old or below. The study was conducted over a six-month period from February to August 2002. 600 parents who attended the CGC for the first time were invited to participate and 477 consented, giving

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a response rate of 79.5%. The study was approved by the hospital's Clinical Research Committee and National Healthcare Group's Ethics Board.

Parents or guardians of all participants of the study were asked to complete a questionnaire. This covered socio-demographical data of the children and frequency of sleep problems during the past six months. A list of nine common sleep problems was included. Parents could rate the frequencies of sleep problems on a three-point scale of "never occurred", "previously only" and "still ongoing". Parents were also asked to judge the frequency of the ongoing sleep disturbances as frequent (> two times/month) or infrequent (< two times/month). The questions on sleeping arrangements determined whether the children and adolescents slept alone, with parents, with siblings, with another relative or with others (e.g. a maid).

All analyses were performed using Statistical Program for Social Sciences (SPSS) version 14.0 (Chicago, IL, USA). Comparisons between the groups of children who slept alone and those who co-slept were performed using t-tests, chi-square and Fisher's exact tests. Two-tailed tests of significance were used and statistical significance was set at $p<0.05$. Correlations were investigated using Pearson correlation tests.

RESULTS

A total of 477 parents/guardians consented and completed the questionnaires. There were 322 (67.5%) boys and 155 (33.5%) girls. 379 (80.1%) were Chinese, 47 (9.9%) Malays, 29 (6.1%) Indians, and the rest (18, 3.8%) belonged to other ethnic groups. The mean age (SD) of the children was 10.1 (3.6) years, and ranged from 2 to 19 years. 130 children (27.3%) slept alone but the majority (347, 72.8%) of the children co-slept. Of these, 162 (34%) slept with parents, 155 (32.5%) slept with siblings, 13 (2.7%) slept with other relatives such as grandparents, and 17 (3.6%) with others such as maids. Among the children who co-slept, 67 (19.3%) children had never experienced any sleep problems.

Children who co-sleep were significantly younger than those who sleep alone (9.3 ± 3.2 years versus 12.3 ± 3.7 years; $p<0.001$). There was a positive correlation between increasing age and sleeping alone (Pearson correlation 0.37). There were no gender differences but a significant difference was observed among the different ethnic groups ($p=0.02$). 82.8% of Indian, 74.7% of Chinese and 61.7% of Malay children co-slept with their parents. In terms of clinical correlates, there were significantly more sleep starts among those who sleep alone ($p=0.02$). Sleep starts were reported in 24% of those who co-sleep and in 35.4% of those sleeping alone. More incidences of nightmares ($p=0.025$) were reported in children who slept alone (44.6%) than in those who co-slept (35.5%). There were no other significant sleep disorders associated with co-sleeping. The incidence of sleep problems in the study group is shown in Table I.

We also investigated the differences and correlations among the sub-groups within the population of children that co-slept with parents, siblings, other relatives or others with respect to age, gender, race and psychopathology. The mean age ± SD (age range) of the children who co-slept with parents was 8.5 ± 3.0 years (2-18 years), with siblings was 10 ± 3.1 years (2-19 years), with other relatives was 9.2 ± 4.1 years (3-17 years), and with others was 10.6 ± 4.2 years (4-16 years). The children who

Table I. Incidence of sleep problems in children who sleep alone versus those who co-sleep.

	Slept alone (n=130)			Co-slept (n=347)		
	Never occurred	Previously only	Still ongoing	Never occurred	Previously only	Still ongoing
Sleep starts *	64.6%	5.4%	30.0%	76.0%	6.2%	17.8%
Confusional arousal	73.6%	5.0%	21.5%	79.4%	4.5%	16.1%
Sleep talking	50.4%	17.1%	32.6%	54.6%	11.0%	34.6%
Bruxism	68.0%	63.6%	10.2%	9.7%	21.9%	26.7%
Sleep walking	90.0%	5.4%	4.6%	93.6%	1.7%	4.6%
Sleep terrors	84.6%	8.5%	6.9%	85.5%	7.8%	6.6%
Nightmares *	55.4%	21.5%	23.1%	64.5%	11.8%	23.7%
Sleep paralysis	93.7%	3.2%	3.2%	95.3%	0.9%	3.8%
Nocturnal enuresis	74.2%	14.1%	11.7%	69.8%	16.1%	14.1%

* $p<0.05$ chi-square test

slept with siblings were significantly older than those who slept with their parents ($p<0.001$). No other significant differences or correlations were evident between the sub-groups.

DISCUSSION

There is a paucity of information, such as the prevalence and extent of ill-effects (if any), of co-sleeping in children. A recent paper discourages parental bed-sharing with young infants after determining a strong association between sudden infant death syndrome – like deaths and mother-infant bed-sharing, especially if the mother is large[8]. However, for older children such as those in our cohort with an average age of 9.3 years, risks for accidental suffocation by overlying or airway obstruction is less of an issue and there are other factors to be considered.

Lozoff et al found that co-sleeping is common when family stress and maternal ambivalence were present[6]. Co-sleeping has been shown to be inversely related to sleep disorders[2]. This is reflected in our findings where co-sleeping was not associated with significant sleep problems. Co-sleeping may have been initiated in response to an existing sleep problem but eventually resolved the problem. If co-sleeping is not permitted, the sleep problem could be compounded, resulting in a higher prevalence of sleep starts and nightmares among our cohort who slept alone.

In addition to sleep problems, there has been some research on the effect of the child's temperament. Hayes et al, through parent ratings, have shown that bedsharers have less regular bedtimes, difficulty with sleep onset, more night-waking and a higher frequency of seeking out parents following awakening during the night[9]. This was similar to Prior's finding that children with "difficult" daytime temperaments have more frequent night awakenings[10]. Some studies have also shown a high incidence of regular and long-lasting co-sleeping in children with psychiatric disorders, mainly in those suffering from anxiety disorders.

Co-sleeping was significantly higher in the Indian children (82.8%) in this study, while the racial distribution of the study cohort does follow the population distribution. A study in India found a prevalence of 93% of co-sleeping in healthy school-going children[3], raising the possibility of the role of cultural factors and beliefs. The practice of co-sleeping is common in many cultures. The most common practice being mother and child co-sleeping while the father sleeps in another place[11]. It is evident that sleeping arrangements of infants and children are influenced by a variety of issues, ranging from parental values to socio-economic factors and cultural diversity, which cannot be examined in a single study.

Some limitations of our study include not studying the patient's temperaments or analysing the psychiatric disorders. We did not study any parental factors that could impact sleep problems. Parents' own childhood experiences, parenting practices and lifestyle factors do have an impact on sleep behaviours and practices of children[12]. Nonetheless, this paper forms a first report of the extent of co-sleeping among a group of children and adolescents seen at a CGC in Singapore, and reflects the need for further study of the practice.

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