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The Efficiency of a Sleep Hygiene Intervention to Improve Sleep Problems in Children with Attention Deficit/Hyperactivity Disorder and Maternal Mental Health

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Abstract

Aim: Pediatric sleep problems can result in negative consequences for both mothers and children. Considering the relatively high prevalence of sleep disorders among children with ADHD (Attention Deficit/Hyperactivity Disorder), this study was designed to investigate the impact of a sleep hygiene intervention to promote sleep problems in children with ADHD and maternal mental health.

Methods: This randomized controlled trial was conducted on 62 children aged 7-13 years with the diagnosis of ADHD and comorbid sleep disorders accompanied by their mothers. Children's Sleep Habits Questionnaire (CSHQ) and Depression, Anxiety and Stress Scale (DASS) were completed by the children's mothers, and then the participants were allocated randomly into experimental and control groups. Mothers of the children in the experimental group received a sleep hygiene educational intervention, which was delivered through a training session and a booklet followed by two telephone calls and educational text messages. Participants in the control group received usual clinical care. The post-test was performed two months after intervention.

Findings: 56 participants (experimental group: n=28, control group: n=28) completed the survey. Data analysis showed that, compared with the control group, the experimental group had a significant reduction in mean scores of CSHQ (P=0.001) and stress subscale scores (F= 0.106, P= 0/015), after controlling pre-test. Besides, the mothers' stress was correlated with the children's CSHQ overall scores (r= 0.52, P= 0.001).

Conclusion: Implementing a sleep hygiene intervention in a sample of children with ADHD could result in improved children sleep problems and maternal well-being.

Keywords: Attention deficit-hyperactivity disorder (ADHD), Child, Inadequate sleep hygiene, Maternal health, Sleep

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Introduction

Children's sleep disorders have significant implications for health care systems [1] because they could result in negative consequences for both mothers and children [2]. Insufficient or inefficient sleep has harmful effects on children's cognitive development, mood regulation, attention, and behavior, as well as on their health and overall quality of life [3, 4]. Furthermore, studies have documented secondary effects of pediatric sleep problems on maternal mental and physical health and well-being and family functioning [4-7] so that child sleep problems are consistently associated with maternal depression, anxiety and overall stress, as well as parenting stress [8]. A possible mechanism is that child sleep problems leads to more active nocturnal care by the mother, which, in turn, interferes with the mother's sleep quality [9] and make her vulnerable to health problems [10].

Behaviors that may be characterized as sleep problems by parents mainly include difficulties in initiating sleep (i.e. delayed sleep onset or bedtime resistance) and maintaining sleep (i.e. frequent nocturnal awakenings or parasomnia) [7, 11].

Effective management of children's sleep problems contributes substantially to reduce the negative potential subsequences among children and their family members [12, 13]. A number of treatment strategies to manage sleep disorders in children exist, including behavioral interventions (behavior management techniques and sleep hygiene) and medications [4, 14]. Due to the efficiency of behavioral strategies in long term, the first line of treatment for sleep difficulties in children is to improve their sleep hygiene [3, 15]. Besides randomized trials have demonstrated that behavioral interventions are able to improve several domains of parental well-being [12, 16], including improvements in maternal mood [17].

Sleep hygiene encompasses a set of behaviors, environmental conditions, and other sleep-related factors that can be used as a stand-alone treatment or component of multi-modal treatment for patients suffering from sleep disorders [18] and have been recommended as a preventive or therapeutic strategy for sleep problems [5].

Since poor maternal mental health is significantly associated with the presence of ADHD in school-aged children [19] and considering the fact that sleep disorders are relatively prevalent among children with ADHD [20, 21], which would deteriorate the severity of ADHD symptoms in these children [21, 22], and consequently, affect maternal health and welfare negatively [19], behavioral interventions and sleep hygiene should be part of a multi-sectional management program in every ADHD treatment package [14, 23].

To the best of our knowledge, this is the first

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randomized controlled trial that investigates the efficacy of a training program in good sleep hygiene practices on sleep problems among children with a neuro- developmental disorder, and maternal mental health in Iran.

Methods

Participants and design

This study was a clinical trial with a pretest-posttest control group design, and random assignment. The study population included 62 children aged 7-13 years with the diagnosis of ADHD and comorbid sleep disorders accompanied by their mothers. Participants were selected by the convenience sampling from patients who had referred to Ali-Asghar Children's Hospital, and Tehran Institute of Psychiatry (between July 2015 and October 2015). The mothers invited to complete a survey about their child's sleep and their own mental health. Eligible patients (n=62) were randomly allocated into two matched groups: experimental (n=31) and control (n=31).

The inclusion criteria included being at the age range of 7-13 years, having ADHD diagnosis based on the DSM (Diagnostic and Statistical Manual of Mental Disorders) criteria, and suffering from at least one sleep disorder formally confirmed by a child psychiatrist. We excluded the children who were suffering from an acute or chronic medical illness or mental disorder, which could interfere with realizing and/or implementing the sleep hygiene recommendations and those who were using medications for sleep disorders as well as the mothers who were receiving treatment for mental disorders.

Ethical considerations

This study was approved by Research Ethics Committee of Faculty of Medical Sciences, Tarbiat Modares University Tehran, Iran (IR.TMU.REC.1394.63). After explaining the procedure of the study, written informed consent was also obtained from all participants.

Data Collection

The data collection tools included:

1. A demographic checklist

2. Children Sleep Habits Questionnaire (CSHQ): This questionnaire is a retrospective parent-report sleep screening instrument designed for school-aged children. The questionnaire includes 35 items, which are grouped into eight subscales including: 1) Bedtime resistance, 2) Sleep onset delay, 3) Sleep duration, 4) Sleep anxiety, 5) Night waking, 6) Parasomnias, 7) Sleep-disordered breathing, and 8) Daytime sleepiness. The parents responded to the items with regard to their child's sleep in the previous week, indicating the frequency with which particular sleep behaviors were evidenced by their child

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on a 3-point scale: usually (5–7 nights per week), sometimes (2–4 nights per week), or rarely (0–1 night per week). Total Sleep Disturbance score included all items of the eight subscales, but consisted of only 33 items because two of the items on the Bedtime resistance and Sleep anxiety subscales were identical [24]. Validity evidence for this Persian version of the scale has been reported by Shoghy et al., and its reliability was calculated at 0/97 using Cronbach's alpha [25].

3. Depression, Anxiety and Stress Scale (DASS): The DASS is a set of three self-report scales, designed to measure the negative emotional states of depression, anxiety and stress [26]. In the present study, the short (21-item) version of DASS with 7 items per scale was used. As recommended, the obtained scale scores were multiplied by 2 to make them comparable to the DASS normative data scores. A severity rating, ranging from 'normal' to 'extremely severe', was calculated for each component. The validity and reliability of the DASS questionnaire in measuring the dimensions of depression, anxiety, and stress has been proven in different studies [27, 28]. Validity and reliability evidence of the Persian version of this scale has been reported by Samani and Joukar [29].

Educational program

At the baseline, the pretest was performed on both the experimental and control groups. Then the educational intervention was conducted for the mothers of children in the experimental group. The intervention plan, based on the study predetermined objectives, included:

1. One training session: The therapy session was held for 135 minutes and included information on normal sleep patterns, the importance of sleep in children and age appropriate amounts of sleep, common sleep disorders among children with ADHD, and the concept of "sleep hygiene" and its categories (Table 1). Then the mothers were trained about the step-by-step implementation of sleep hygiene strategies known to be effective in typically developing children.

Table 1: Sleep hygiene categories

Categories	Subsets
Environmental factors	Ambient light, humidity, bedroom ventilation, temperature, noise level, bedroom decoration, bedding and family atmosphere
Scheduling	Regular sleep/wake schedule
Sleep practices	Establishing a perfect bedtime routine
Physiologic factors	Exercise, diet and timing of meals, caffeine use, relaxation techniques, sunlight exposure and taking a bath

2. Educational package: The educational package contained: a) an instructional booklet

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about sleep health, provided based on text books, articles, guidelines and other related resources under supervision of a pediatric psychiatrist (tailored to the needs of the participants and according to the study objectives) in 12 chapters with two attachments for both mothers and children, b) Visual schedules or to-do-lists and stickers (a visual schedule is a set of pictures that shows what happens during a particular period of time and can help break down a task that has many steps; this helps some children feel less anxiety and be more flexible), and c) Incentive awards for the children.

3. Telephone calls: Two follow-up telephone calls were made at the third and fifth weeks after intervention to reinforce the suggested strategies.

4. Weekly educational cell phone text messages: The messages contents were designed based on the study purposes by the research team. Participants in the control group received usual clinical care.

We measured outcomes at two months after randomization in both the experimental and control groups.

Statistical Analysis

Data were analyzed using the SPSS software (Ver. 19). According to the study design, which is pretest-posttest with control group, and to reduce within-group error variance and to modify the covariate (control) variables' effects (in our study pre-test results are considered as covariate variables), analysis of covariance (ANCOVA) was performed to compare the two groups two months after intervention at a statistical significance level of $\alpha = 0.05$. The assumptions underlying the ANCOVA were met. The normality assumption was checked by normality test in SPSS. The assumption of homogeneity of variance was tested using Levene's test of equality of variances. Furthermore, the assumptions of homogeneity of regression slopes and linearity of regression were tested and confirmed. We also used Pearson's correlation coefficient to measure the strength of linear associations between the variables.

Results

Three members of the experimental group and three members of the control group were excluded for various reasons, including absenteeism from the educational session, and no participation in the post-test. Finally, 28 patients in the experimental group and 28 patients in the control group completed the survey.

The mean age of the children was 8.71±1.56 years (range 7-13), and 78.6% of them were boys and 21.4% girls. The mean age of the mothers was 32.4±4.9 years.

The Chi-square test results showed no

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statistically significant differences between the experimental and control groups in terms of demographic variables (Table 2). In other words, the two groups were matched perfectly in basic characteristics.

The means and standard deviation of pre-test and post-test scores in both groups are presented in Table 3.

Table 2: Mean and standard deviation of demographic characteristics of children in the experimental and control groups [a]

Characteristics	Experimental group	Control group	P value
Children			
Age			
	8.64±1.44	8.79±1.70	0.922
Sex			
Male	21 (75)	23 (82.1)	0.515
Female	7 (25)	5 (17.9)	
Medication use			
	18 (64.3)	20 (71.4)	0.567
Mothers			
Age			
	32.5±5.0	32.0±4.9	0.735
Academic status			
Completed high school	16 (57.1)	19 (67.8)	0.675
College or postgraduate degree	12 (42.9)	9 (32.2)	
Occupation status			
Employed	7 (25)	9 (32.2)	0.759
Housewife	21 (75)	19 (67.8)	
Family			
Another child with ADHD			
	8 (28.6)	6 (21.4)	0.537
Economic status			
Poor	6 (21.4)	4 (14.3)	0.766
Average	14 (50)	16 (57.1)	
Good	8 (28.6)	8 (28.6)	

[a] Data are presented as mean± SD or No.(%).

Table 3: Mean and standard deviation of CSHQ overall scores and DASS subscales in the experimental and control groups [a]

Variables	Experimental group		Control group	
	Pre-test	Post-test	Pre-test	Post-test
CSHQ				
CSHQ overall scores (SD)	61.36±7.23	55.89±5.87	57.93±6.59	58.46±6.28
DASS				
Depression scores (SD)	15.64±12.35	15.79±11.30	16.21±9.14	17.43±8.65
Anxiety scores (SD)	12.71±7.91	12.61±7.52	12.86±7.70	12.93±7.39
Stress scores (SD)	23.36±11.57	21.21±10.44	23.43±8.25	22.93±7.25

[a] Data are presented as mean± SD

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The impact of sleep hygiene education program on the Children Sleep Habits Questionnaire (CSHQ) and DASS subscales in the experimental and control groups was compared after controlling the pre-test.

In this study, the independent variable was the training condition – whether the participants received the sleep hygiene training or some without training, and the dependent variable was their CSHQ or DASS scores after receiving the training. The covariate variable was the participants' CSHQ or DASS scores in the pre-test. The ANCOVA results are shown in Table 4.

Table 4: Analysis of covariance results on the variables of CSHQ and DASS outcomes in the experimental and control groups after controlling the pre-test [a]

Variables	SS	Df	SM	F	P	Eta-squared
CSHQ						
CSHQ overall scores						
(Pre-test)	1376.78	1	1376.78	117.531	0.001	0.689
Group	338.736	1	338.736	28.917	0.001	0.353
DASS						
Depression scores						
(Pre-test)	4607.255	1	4607.255	281.865	0.001	0.842
Group	18.735	1	18.735	1.146	0.289	0.021
Anxiety scores						
(Pre-test)	2456.855	1	2456.855	255.413	0.001	0.828
Group	0.545	1	0.545	0.056	0.814	0.001
Stress scores						
(Pre-test)	4043.624	1	4043.624	663.613	0.001	0.926
Group	38.243	1	38.243	6.276	0.015	0.106

[a] Abbreviations: df: Degree of Freedom; SM: Sum of Means; SS: Sum of Squares

The analysis showed statistically significant differences between the scores of post-test in the experimental and control groups regarding the CSHQ overall scores (F= 28.917, P= 0.001) the and mothers' stress scores (F= 0.106, P= 0/015), after controlling the pre-test. However, the findings did not indicate significant differences in the post-test scores of mothers' depression and anxiety in the experimental group, comparing with the control group (P> 0.05).

Besides, using Pearson's correlation coefficient revealed a moderate correlation (r= 0.52, P= 0.001) between the children's CSHQ overall scores and the mothers' stress scores (Table 5).

Table 5: Pearson's correlation coefficient between CSHQ scores and stress subscale scores

Variables	CSHQ scores	
	Correlation	P-value
Stress scores	0.52	0.001

Discussion

Given the high prevalence of sleep disorders in

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children with ADHD [20, 21] and their negative subsequences [19-22, 30], this study aimed to evaluate the efficiency of sleep hygiene education on the sleep habits of children aged 7-13 years with the diagnosis of ADHD and comorbid sleep disorders, and maternal mental health. The results showed that the intervention was effective to improve sleep problems in children, and consequently, the stress in mothers was reduced.

The efficacy of behavioral interventions and sleep hygiene educational programs on children's sleep disorders and maternal mental health has been investigated in previous studies. Hiscock et al. in a study entitled "Randomised controlled trial of behavioral infant sleep intervention to improve infant sleep and maternal mood" confirmed the efficiency of a behavioral sleep intervention to reduce infant sleep problems and maternal depression [12]. A study performed by Lam et al. explored the relationship among child sleep problems, maternal well-being, family functioning, and child behavior [7]. Hiscock et al. assessed the effectiveness of a community-delivered intervention targeting infant sleep problems to improve infant sleep and maternal welfare, and revealed that implementing a sleep intervention could lead to health gains for both infants and mothers [13]. Symon et al. showed that using a behavioral strategy to improve sleep was effective in improving infant sleep and in increasing maternal well-being [30]. Although the above-mentioned studies have been done in different ways and in diverse populations, the results were almost identical, which correspond with the findings of the current study in a population of Iranian children with ADHD and their mothers.

In the present study, Synchronous with increasing maternal knowledge about sleep process, sleep importance, consequences of pediatric sleep problems and acquiring skills for implementing good sleep habit practices as part of behavioral strategies for managing sleep problems, the mothers reported improvement in their children's sleep problems and maternal well-being respectively according to the CSHQ and DASS. So that two months after the intervention, compared with the control group, the intervention group had a significant reduction in the mean scores of CSHQ and stress subscale of DASS after controlling the pre-test. Moreover, our study demonstrated a moderate correlation between the children's CSHQ overall scores and the mothers' stress scores.

In explaining the study results, it is to be noted that the intervention through increasing sleep knowledge and promoting sleep hygiene practices (doing behaviors that facilitate sleep and avoid behaviors interfering with sleep) could succeed in alleviating sleep problems in children. In addition, parenting a child with a

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developmental disability including ADHD would be particularly stressful for parents as they respond to the challenges presented by their child's condition; pediatric sleep problems have also been related to maternal stress in these children [31]. Besides, the quality of the children's sleep significantly affects the quality of maternal sleep, and maternal sleep quality is a predictor of maternal mood, stress, and fatigue [32]. So the improvement of children's sleep difficulties in the current study was associated with mental health benefits for mothers. Lack of the intervention effectiveness in improving depression and anxiety subscales of DASS could be due to other effective potential variables [17] including medical issues, family culture, marital complications, and some other socio-economic factors, which may affect maternal health and well-being. These depressed/anxious mothers would become distressed when facing other stressors like sleep problems and might hardly response to therapeutic interventions.

Limitations

Our study had some limitations. First, all outcomes were self-report and parent-report measures, which may have biased results in the intervention group because they could not be blinded and this would lead to an overestimate of the effect of the intervention. Second, due to time limitation, the study could not examine the long-term impact of the behavioral intervention; hence, we suggest that future studies measure outcomes in six months intervals.

Conclusion

In summary, our findings suggest that sleep hygiene educational interventions are acceptable to parents, feasible to deliver, and could be effective in improving sleep habits in children with ADHD and maternal mental health. The results of this study support the planning, implementation and evaluation of educational programs on good sleep hygiene practices for children.

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Conflict of interest statement

The authors declare that they have no conflict of interest.

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References

1. Wake M, Morton-Allen E, Poulakis Z, Hiscock H, Gallagher S, Oberklaid F. Prevalence, stability, and outcomes of cry-

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fuss and sleep problems in the first 2 years of life: prospective community-based study. AAP news 2006; 117(3): 836-42.

2. Armstrong KL, Quinn RA, Dadds MR. The sleep patterns of normal children. Med J Aust 1994; 161(3): 202-6.
3. Jan JE, Owens JA, Weiss MD, Johnson KP, Wasdell MB, Freeman RD, Ipsiroglu OS. Sleep hygiene for children with neurodevelopmental disabilities. AAP news 2008; 122(6): 1343-50.
4. Mindell JA, Kuhn B, Lewin DS, Meltzer LJ, Sadeh A. Behavioral treatment of bedtime problems and night wakings in infants and young children. Sleep 2006; 29(10): 1263.
5. Galland BC, Mitchell EA. Helping children sleep. Arch Dis Child 2010; 95(10): 850-3.
6. Hiscock H, Wake M. Infant sleep problems and postnatal depression: a community-based study. AAP news 2001; 107(6): 1317-22.
7. Lam P, Hiscock H, Wake M. Outcomes of infant sleep problems: a longitudinal study of sleep, behavior, and maternal well-being. AAP news 2003; 111(3): e203-7.
8. Hiscock H, Bayer JK, Hampton A, Ukoumunne OC, Wake M. Long-term mother and child mental health effects of a population-based infant sleep intervention: cluster-randomized, controlled trial. AAP news 2008; 122(3): e621-7.
9. Gress JL, Chambers AS, Ong JC, Tikotzky L, Okada RL, Manber R. Maternal subjective sleep quality and nighttime infant care. J Reprod Infant Psychol 2010; 28(4): 384-91.
10. Dennis CL, Ross L. Relationships among infant sleep patterns, maternal fatigue, and development of depressive symptomatology. Birth 2005; 32(3): 187-93.
11. Mindell JA, Du Mond CE, Sadeh A, Telofski LS, Kulkarni N, Gunn E. Efficacy of an internet-based intervention for infant and toddler sleep disturbances. Sleep 2011; 34(4): 451-8.
12. Hiscock H, Wake M. Randomised controlled trial of behavioural infant sleep intervention to improve infant sleep and maternal mood. BMJ 2002; 324(7345): 1062.
13. Hiscock H, Bayer J, Gold L, Hampton A, Ukoumunne O, Wake M. Improving infant sleep and maternal mental health: a cluster randomised trial. Arch Dis Child 2007; 92: 952-8.
14. Mindell JA, Owens JA. A clinical guide to pediatric sleep: diagnosis and management of sleep problems. Lippincott Williams & Wilkins; 2015.
15. Mindell JA. Empirically supported treatments in pediatric psychology: bedtime refusal and night wakings in young children. J Pediatr Psychol 1999; 24(6): 465-81.

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16. Symon BG, Marley JE, Martin AJ, Norman ER. Effect of a consultation teaching behaviour modification on sleep performance in infants: a randomised controlled trial. Med J Aust 2005; 182(5): 215-8.
17. Goldberg WA, Lucas-Thompson RG, Germo GR, Keller MA, Davis EP, Sandman CA. Eye of the beholder? Maternal mental health and the quality of infant sleep. J Soc Sci Med 2013; 79: 101-8.
18. Stepanski EJ, Wyatt JK. Use of sleep hygiene in the treatment of insomnia. Sleep Med Rev 2003; 7(3): 215-25.
19. Lesesne CA, Visser SN, White CP. Attention-deficit/hyperactivity disorder in school-aged children: Association with maternal mental health and use of health care resources. AAP news 2003; 111(Suppl 1): 1232-7.
20. Sung V, Hiscock H, Sciberras E, Efron D. Sleep problems in children with attention-deficit/hyperactivity disorder: prevalence and the effect on the child and family. Arch Pediatr Adolesc Med 2008; 162(4): 336-42.
21. Lycett K, Sciberras E, Mensah F, Gulenc A, Hiscock H. Behavioural sleep problems in children with attention-deficit/hyperactivity disorder (ADHD): protocol for a prospective cohort study. BMJ open 2014; 4(2): e004070.
22. Van der heijden KB, Smits MG, Gunning WB. Sleep-related disorders in ADHD: a review. Clin Pediatr (Phila) 2005; 44(3): 201.
23. Hvolby A. Associations of sleep disturbance with ADHD: implications for treatment. ADHD Atten Def Hyp Disord 2014; 7(1): 1-18.
24. Owens JA, Spirito A, McGuinn M. The Children's Sleep Habits Questionnaire (CSHQ): psychometric properties of a survey instrument for school-aged children. Sleep 2000; 23(8): 1043-52.
25. Shoghy M., Khanjari S, F. Farmany, F. Hosseini. Sleep habits of school age children. IJN 2005; 18(41): 131-8.
26. Lovibond SH, Lovibond PH. Manuals for the Depression Anxiety Stress Scales. 2nd Edition, Psychology Foundation, 1995.
27. Henry JD, Crawford JR. The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. Br J Clin Psychol 2005; 44(2): 227-39.
28. Nieuwenhuijsen K, De Boer AG, Verbeek JH, Blonk RW, Van Dijk FJ. The Depression Anxiety Stress Scales (DASS): detecting anxiety disorder and depression in employees absent from work because of mental health problems. Occup Environ Med 2003; 60(suppl 1): i77-82.
29. Samani S, Joukar B. A study on the reliability and validity of the short form of the

[Downloaded from hehp.daneshafarand.org on 2026-11-13]

depression anxiety stress scale (DASS-21). J Soc Sci Hum Shiraz Univ 2007; 26(3): 65-77.

30. Symon B, Crichton GE. The joy of parenting: infant sleep intervention to improve maternal emotional well-being and infant sleep. Singapore Med J 2016; Available from: ttps://www.sma.org.sg/ UploadedImg/files/SMJ/epub/OA-2015-226-epub.pdf
31. Hoffman CD, Sweeney DP, Lopez-Wagner MC, Hodge D, Nam CY, Botts BH. Children with autism: sleep problems and mothers' stress. focus on autism and other developmental disabilities. Focus Autism Other Dev Disabl 2008; 23(3): 155.
32. Meltzer LJ, Mindell JA. Relationship between child sleep disturbances and maternal sleep, mood, and parenting stress: a pilot study. Journal of Family Psychology2007; 21(1): 67.

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