Journal of Psychiatry and Cognitive Behaviour
Wang C, et al. J Psychiatry Cogn Behav 8: 178.
www.doi.org/10.29011/2574-7762.000078
www.gavinpublishers.com

OPEN ACCESS

GAVIN PUBLISHERS

Research Article

Family Conflicts, Sleep and Mental Health in Chinese Adolescents

Chengxi Wang[1*], Xujin Li[1], Guanxue Bian[1], Guanheng Li[1]

11th Grade, Beijing No.2 Middle School, 15 Neiwubu Street, Dongcheng District, Beijing, China.

***Correspondance:** Chengxi Wang, Beijing No.2 Middle School, 15 Neiwubu Street, Dongcheng District, Beijing, China.

Citation: Wang C, Li X, Bian G, Li G (2024) Family Conflicts, Sleep and Mental Health in Chinese Adolescents. J Psychiatry Cogn Behav 8: 178. DOI: https://doi.org/10.29011/2574-7762.000078

Received Date: 27 March, 2024; **Accepted Date:** 19 April, 2024; **Published Date:** 23 April, 2024

Abstract

The influence of family relationships extends significantly and enduringly in shaping the development of adolescents. Previous literature had a family environment scale (FES) to measure family relationships and conflicts. However, the FES did not measure conversation or work-life balance conflicts and it remains unclear whether these additional dimensions of family conflicts were associated with sleep and mental health issues in adolescents. We developed a new family conflict questionnaire with these two dimensions through semi-structural interviews and examined the relationships between family conflicts and sleep and mental health problems in sixty-five students in Beijing, China. We found that particularly in boys, elevated family conflicts in terms of conversation and work-life balance, were associated with more sleep and mental health issues including general anxiety. These findings suggest sex differences in the associations and future studies may investigate the causal relationships with a longitudinal design.

Keywords: Family conflicts; Mental health; Sleep; Adolescents; Questionnaire development.

Introduction

Family relationships have a lasting and far-reaching impact on the development of adolescents, including behaviors and emotions, throughout their lives [1]. Prior evidence has linked negative with more mental health issues in people from adolescence to adulthood [2]. Family conflicts reflect negative family relationships and are often measured as a dimension in the Family Environment Scale [3]. The FES consisted of ten subscales, in which eight items were used to assess family conflicts. The 8 items included physical, emotional, and relationship conflict. However, researchers have not developed a full questionnaire for measuring family conflicts, with additional aspects of work-life balance and conversation conflict. Such a questionnaire would be of great importance to understand the causes of family conflict and the influences on adolescent mental health.

Adolescents experiencing more family conflicts may show higher possibility to develop mental problems such as depression or anxiety [4]. Family environmental factors, including only-child policy in China, parent-child relationship, and child abuse, contributed to severity of depression and anxiety in Chinese adolescents [5]. Besides, meta-analysis findings showed that children who are exposed to higher levels of interparental conflict after separation or divorce are more susceptible to mental health issues [6-8]. Previous studies have also considered the effects of work-life balance on depression and anxiety in adolescents [9,10]. Prior evidence has demonstrated that communication patterns in family predicted the mental health of adolescents [11]. However, it is not fully understood whether work-life balance and conversation conflicts influence the emotion status of adolescents in China. Therefore, it is necessary to carry a survey, as compared to FES, about how additional aspects of family conflicts including work-life balance and conservation conflict influence the mental health of adolescents.

Sex differences between parents and adolescents also influence how they are affected by family conflicts, since women were more depressed and more likely to have physical symptoms than men [12]. Prior evidence demonstrated that parental divorce strongly correlated with depressive symptoms particularly in girls [13], suggesting sex differences in the effects of family conflicts on mental health in adolescents. Parents' sex differences also affect mental status of adolescents. Prior study showed that Children in the care of male caregivers are more likely to experience anxiety and stress. In contrast, female caregivers did not bring negative

effects to children's mental health [14]. Besides, students' sex differences are also important: There is good evidence that the prevalence of depression, anxiety and suicidal behavior is 1.7 to 2.4 times higher in women than in men [15-17].

In the current study, we aimed to develop a new questionnaire of family conflicts by interviewing Chinese parents and high school students and to examine the relationships between family conflicts and mental health in adolescents. We interviewed 10 families and designed a new questionnaire of family conflicts. We also used the scales of Pittsburgh Sleep Quality Index and Revised Children's Anxiety and Depression to evaluate the sleep dysfunctions and mental health problems in the adolescents. We hypothesized that the additional aspects of family conflicts, i.e., work-life balance and conversation conflicts will also cause negative effects on adolescents' emotional status. Additionally, we posited sex differences in the effects according to existing literature.

Materials and Methods

Participants

All research was performed in accordance with relevant guidelines/regulations, and written informed consent was obtained from each individual prior to participation. Six parents (4 females) and six students (1 girl) were interviewed at the great area of Dongcheng and Haidian in Beijing China. We designed and developed a new family conflict questionnaire based on the interview summary. Sixty-five middle and high school students (mean age: 15.33 years old; 40 girls) from Beijing and other cities in China completed the questionnaires.

Interview process

The interview preparation was structured into three key phases: brainstorming, interviewing, and summarizing. Initially, we categorized the interview questions into three groups: work-life balance, conversation, and other conflicts including physical, emotional, and relational aspects. Four interviewers in our research group were designated to interview both parents and their children. These interviews took place in classrooms after a seminar in Beijing No. 2 Middle School as well as through online meetings. We also recorded throughout the interviews. Families were randomly selected, and we discussed our designed questions with them.

Based on their responses, we compiled the collected information to create a questionnaire. While all parents and students acknowledged their family conflict issues, the frequency of these conflicts varied among families. During a face-to-face interview with a student's father, common familial problems such as disagreements and quarrels between him and his wife were discussed. Regarding the potential impact of these conflicts on their child, he openly acknowledged that such contradictions could evoke negative emotions like anxiety and restlessness in the child. Additionally, he admitted that these conflicts might have diverted his attention away from his child's needs and growth.

Subsequently, in a one-on-one interview with the child, he expressed awareness of how family conflicts influenced his emotions and behaviors. He conveyed feelings of frustration and helplessness during his parents' arguments, stating that these disputes left him feeling anxious and nervous, consequently affecting his academic performance and interactions with classmates.

Assessments

Demographics

We collected demographic information of each participant including age, sex, grade, number of kids in family, and family income (1-very low; 2-low; 3-medium; 4-high; 5-very high).

Sleep dysfunction questionnaire

Participants were assessed with the Pittsburgh Sleep Quality Index (PSQI), to evaluate the quality of sleep [18]. Each PSQI question is rated from 0 = no difficulty to 3 = severe difficulty. The PSQI total score ranges from 0 to 21 and a score > 5 indicates clinically significant sleep deficiency. There were seven components in the PSQI: subject evaluation, latency, duration, efficiency, disturbance, medication, and daytime dysfunction, with each component score ranges from 0-3 and higher score indicating more sleep dysfunctions.

Mental health questionnaire

Students also completed the Revised Children's Anxiety and Depression Scale (RCADS), a comprehensive 47-item assessment encompassing subscales for separation anxiety disorder (7 items), social phobia (9 items), generalized anxiety disorder (6 items), panic disorder (9 items), obsessive-compulsive disorder (6 items), and major depressive disorder (10 items). Participants rated each item on a 4-point scale: 0 (Never), 1 (Sometimes), 2 (Often), and 3 (Always). Higher scores in the RCADS items' responses correspond to a higher manifestation of symptoms, with a score range of 0-141.

Family conflict questionnaire

We designed the family conflict questionnaire with 30 items based on the interviews on both parents and students. The questionnaire consists of six dimensions: emotional conflict (2 items), relational conflict (2items), physical conflict (2 items), conversational conflict (3 items), work-life balance conflict (6 items), conflict source (2 items), conflict outcome (3 items), and conflict resolution (10 items). Each item's response was rated on a 5-point scale: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree). Higher scores reflects more family conflicts.

Statistical analyses

We compared demographics (age, number of kids, and SES) and clinical measures (sleep and mental health) for boys vs. girls, using the independent sample *t* tests. We performed Pearson's correlation analyses between family conflicts including sum and dimensional scores and sleep quality/mental health in all subjects, as well as boys and girls alone.

Results

Sex differences

Table 1 shows descriptive statistics of demographics and clinical measures in boys and girls separately. We did not find any significant differences in age, number of kids, or family income between sexes (p >= 0.070). As compared to boys, girls showed shorter sleep duration ($p = 0.039$) and more mental health problems ($p = 0.036$), especially more panic ($p = 0.036$) and general anxiety symptoms ($p = 0.017$). There were no significant sex differences in other clinical measures (p >= 0.061). Regarding family conflicts, we did not observe any significant differences in the sum score or subscores.

Measures	Boys (n = 25)	Girls (n = 40)	*t*	*p*
Age	14.84±1.84	15.64±1.60	-1.84	0.070
Number of kids	1.32±0.56	1.60±0.74	-1.62	0.111
Family income	3.20±0.41	3.35±0.74	-1.06	0.295
Sleep Dysfunctions				
PSQI sum	5.04±3.34	6.05±3.78	-1.10	0.278
Subjective evaluation	1.06±0.85	1.15±0.78	-0.35	0.725
Latency	1.04±0.94	0.98±0.97	0.267	0.791
Duration	0.84±0.94	1.38±1.03	-2.10	**0.039**
Efficiency	0.12±0.33	0.13±0.52	-0.04	0.966
Disturbance	0.96±0.54	1.05±0.71	-0.54	0.591
Medication	0.04±0.20	0.13±0.56	-0.73	0.471
Daytime dysfunction	1.36±1.00	1.65±1.10	-1.07	0.288
Mental Health				
RCADS sum	29.48±26.27	46.28±33.12	-2.15	**0.036**
Social phobia	8.76±7.12	11.48±7.33	-1.47	0.147
Panic	4.00±4.40	7.78±6.89	-2.70	**0.009**
Major depression	5.44±6.60	9.18±8.29	-1.91	0.061
Separation anxiety	3.36±3.41	5.05±4.22	-1.69	0.097
General anxiety	4.88±4.36	7.88±5.44	-2.45	**0.017**
Obsessive compulsive	3.04±3.09	4.93±5.08	-1.86	0.067
Family Conflict				
Sum	76.44±16.49	83.48±18.45	-1.56	0.125
Emotion	6.60±2.12	7.20±2.23	-1.07	0.287
Relation	5.00±1.66	5.20±1.98	-0.42	0.675
Physical	3.20±1.44	3.70±1.86	-1.22	0.229
Conversation	7.76±3.28	8.57±3.15	-1.00	0.322
Work-life balance	14.12±5.78	15.30±7.13	-0.70	0.489
Source	5.48±2.30	5.08±2.43	0.67	0.507
Outcome	9.08±3.10	11.13±2.92	-2.68	**0.009**
Resolution	25.20±5.69	27.30±6.55	-1.32	0.192

Table 1: Descriptive statistics of demographics and clinical measures in boys and girls separately;Note: Independent sample t tests. PSQI: the Pittsburgh Sleep Quality Index; RCADS: Revised Children's Anxiety and Depression Scale. Higher scores (sum and subscales) of PSQI and RCADS represent more sleep dysfunctions and mental health issues, respectively.

Correlations of family conflicts with sleep and mental health problems

As shown in **Table 2**, among all subjects, we found that the higher levels of overall family conflicts were significantly correlated with poorer sleep quality (PSQI sum; $p = 0.004$), specifically shorter sleep duration ($p = 0.039$) and more daytime dysfunction ($p = 0.001$). Besides, the overall family conflicts were positively correlated with the general mental health problems ($p = 0.013$), social phobia ($p = 0.017$), panic ($p = 0.019$), major depression ($p = 0.021$), and general anxiety ($p = 0.005$) issues. In particular, these significant correlations were only existed in boys but not in girls. Further, we particularly examined the correlations of two new dimensions of family conflict – conversation and work-life balance – with sleep and mental health problems in boys only. The results are shown in Figures 1 and 2, respectively.

	All		Boys		Girls	
	r	*p*	*r*	*p*	*r*	*p*
Sleep Dysfunctions						
PSQI sum	0.36	**0.004**	0.53	**0.006**	0.24	0.130
Subjective evaluation	0.29	0.060	0.57	**0.022**	0.14	0.507
Latency	0.18	0.155	0.32	0.125	0.12	0.453
Duration	0.26	**0.039**	0.30	0.146	0.18	0.272
Efficiency	0.18	0.162	0.09	0.672	0.21	0.189
Disturbance	0.24	0.051	0.57	**0.003**	0.01	0.542
Medication	-0.09	0.502	0.12	0.565	-0.16	0.335
Daytime dysfunction	0.40	**0.001**	0.55	**0.004**	0.30	0.062
Mental Health						
RCADS sum	0.31	**0.013**	0.57	**0.003**	0.14	0.385
Social phobia	0.30	**0.017**	0.62	**0.001**	0.08	0.616
Panic	0.29	**0.019**	0.54	**0.005**	0.15	0.355
Major depression	0.29	**0.021**	0.42	**0.035**	0.18	0.274
Separation anxiety	0.19	0.135	0.40	**0.047**	0.04	0.790
General anxiety	0.35	**0.005**	0.60	**0.001**	0.18	0.256
Obsessive compulsive	0.19	0.121	0.42	**0.035**	0.08	0.639

Table 2: Family conflicts (sum), sleep and mental health for all, and boys and girls alone.

Greater conversation conflict was significantly associated with more sleep disturbance ($r = 0.49$, $p = 0.013$) and day-time dysfunction ($r = 0.45$, $p = 0.025$) as well as higher levels of overall mental problems ($r = 0.52$, $p = 0.008$) and general anxiety ($r = 0.50$, $p = 0.011$), panic disorder ($r = 0.46$, $p = 0.020$), social phobia ($r = 0.61$, $p = 0.001$), and separation anxiety ($r = 0.50$, $p = 0.012$). Increased work-life balance conflict was significantly associated with poorer sleep quality ($r = 0.48$, $p = 0.016$), more sleep disturbance ($r = 0.42$, $p = 0.038$) as well as elevated levels of overall mental problems ($r = 0.43$, $p = 0.031$) and panic disorder ($r = 0.45$, $p = 0.024$), social phobia ($r = 0.42$, $p = 0.036$), and obsessive compulsive disorder ($r = 0.50$, $p = 0.012$).

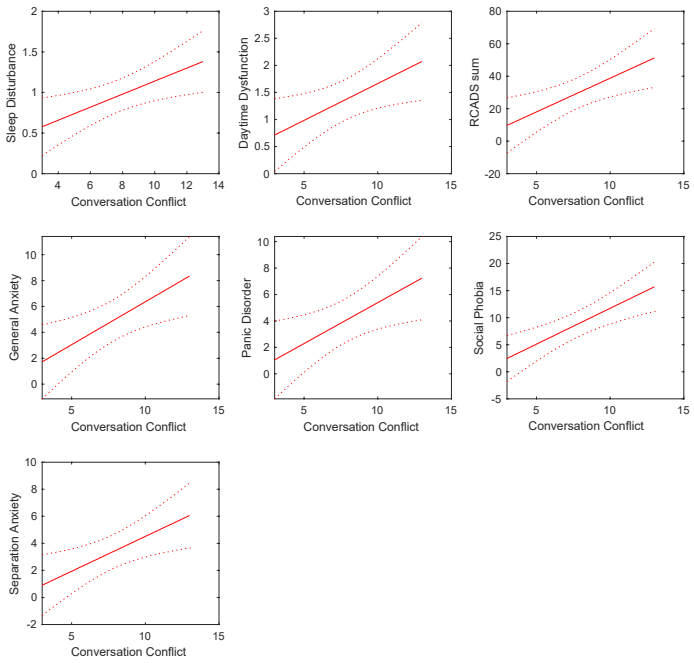

Figure 1: Conversation conflict, sleep and mental health in boys.

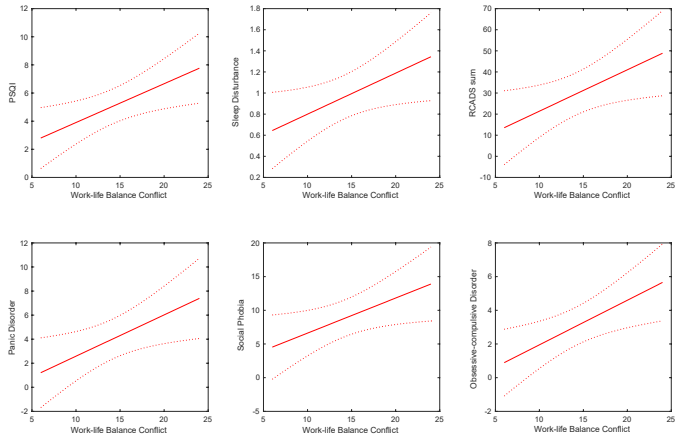

Figure 2: Work-life balance conflict, sleep and mental health in boys.

Discussion

In all subjects, we found more family conflicts were associated with poorer overall sleep quality, shorter sleep duration, and more daytime dysfunction. We also observed positive correlations between family conflicts and students' mental health issues including social phobia, panic episodes, major depression, and general anxiety. Intringuingly, these significant correlations were presented only for boys but not girls. Additionally, we found significant sex differences in sleep duration, general mental health problems, panic episodes, and general anxiety. Specifically, girls showed longer sleep duration, but more mental health problems including panic episodes and general anxiety. We discussed the main findings below.

Family conflict questionnaire

We developed a new family conflict questionnaire after interviewing several parents and students. The range of total score was 30-150, while the mean score of family conflict was approximately 80 across boys and girls, indicating a moderate level of family conflicts in the current sample. This is consistent with prior evidence from a recent research that demonstrated 38.6% families in China showing parent-child conflict [2].

Sex differences

First, we found shorter sleep duration in boys as compared to girls. Previous literature on the sex differences in sleep showed mixed results, with some revealing a poorer sleep health with low quality and quantity of sleep in girls [19] whereas some others reporting better sleep in women [20]. The reason of this may be related to students' grades, time on the Internet, etc. Second, we also observed higher levels of panic episodes and general anxiety in girls vs. boys. This finding is in line with overwhelming wealth of evidence of greater prevalence of anxiety and emotional disorders in females than males in both adult and adolescent studies [21,22]. However, we did not observe any significant sex differences in overall family conflicts or dimensions.

Relationships between family conflicts, sleep, and mental health

First, we found that increased family conflicts were associated with more mental health problems in adolescents, including social phobia, panic episodes, major depression, and general anxiety. Previous study showed that work-family conflict would influence child mental health significantly [23]. In our study, boys tend to have more mental health problems than girls. Previous study showed that the gender risk profile for depression is dominated by external risk factors for men and internal risk factors for women [24]. In terms of this, we assumed family conflicts as external risk factors for both boys and girls. Therefore, boys tend to have more mental health problems than girls.

Second, we also found that greater family conflicts were associated with pooer sleep quality, shorter duration, longer latency, and more daytime dysfunction. These findings are in line with prior evidence. For instance, conflicts due to family composition were negatively associated with sleep quality and frequency in adolescents [25]. Beisdes, a recent study also showed that positive and negative family relationship factors were positively and negatively correlated with sleep in adolescents, respectively [26].

Limitation of the study and conclusion

A few limitations need to be considered. First, the sample selection was not diverse and the sample size was small. Second, this is a cross-sectional study so that we were not able to test causality between family conflicts and mental health problems. Finally, self-report measures may be subject to social desirability bias. In future, we may consider a longitudinal design with more objective measurements in a larger sample to investigate how family conflicts contribute to students' mental health issues.

Conclusion

In conclusion, we demonstrated that family conflicts, particularly, conversation and work-life balance conflicts were associated with sleep and mental health problems including general anxiety. These significant relationships were found in boys, rather than girls, indicating potential sex differences. These findings have implications in understanding mental health issues among the adolescents, informing the parents and schools of educational strategies.

Acknowledgments

We thank Dr. Yu Chen for comments on the study design and the manuscript.

Conflict of Interests

The authors declare no conflict of interests in the current study.

References

1. Song Q, Su W, Li N, Wang H, Guo X, et al. (2023) Family function and emotional behavior problems in Chinese children and adolescents: A moderated mediation model. J affective disorders 341: 296-303.
2. Chen P, Harris, KM (2019) Association of positive family relationships with mental health trajectories from adolescence to midlife. Jama Pediatr 173: e193336-e193336.
3. Moos RH, Moos BS (1976) A typology of family social environments. Family process 15: 357-371.
4. Herrenkohl TI, Kosterman R, Mason WA, Hawkins JD, McCarty CA, et al. (2010) Effects of childhood conduct problems and family adversity on health, health behaviors, and service use in early adulthood: Tests of developmental pathways involving adolescent risk taking and depression. Dev psychopathol 22: 655-665.
5. Wen L, Yang K, Chen J, He L, Xiu M, et al. (2023) Associations between resilience and symptoms of depression and anxiety among adolescents: examining the moderating effects of family environment. J affective disorders 340: 703-710.
6. Amato PR (2001) Children of divorce in the 1990s: an update of the Amato and Keith (1991) meta-analysis. J Fam psychol 15: 355.
7. O'Hara KL, Cohen BR (2023) A call for early, effective, and scalable parent education programs for high□conflict separated/divorcing parents: A synthesized perspective from prevention science and family law. Fam Court Rev 62: 160-175.
8. Van Dijk R, Van Der Valk IE, Deković M, Branje S (2020) A meta-analysis on interparental conflict, parenting, and child adjustment in divorced families: Examining mediation using meta-analytic structural equation models. Clin Psychol Rev 79: 101861.
9. Han WJ, Miller DP (2009) Parental work schedules and adolescent depression. Health Sociol Rev 18: 36-49.

10. Leineweber C, Falkenberg H, Albrecht SC (2018) Parent's relative perceived work flexibility compared to their partner is associated with emotional exhaustion. Front Psychol 9: 640.

11. Zarnaghash M, Zarnaghash M, Zarnaghash N (2013) The relationship between family communication patterns and mental health. Procedia-Social and Behavioral Sciences 84: 405-410.

12. Sung JM, Kim YJ (2020) Sex differences in adolescent mental health profiles in South Korea. Archives of psychiatric nursing 34: 563-571.

13. Oldehinkel AJ, Ormel J, Veenstra R, De Winter AF, Verhulst FC (2008) Parental divorce and offspring depressive symptoms: Dutch developmental trends during early adolescence. Journal of Marriage and Family 70: 284-293.

14. Amaral S, Dinarte-Diaz L, Dominguez P, Perez-Vincent SM (2024) Helping families help themselves: The (Un) intended impacts of a digital parenting program. J Development Economics 166:103181.

15. Altemus M, Sarvaiya N, Epperson CN (2014) Sex differences in anxiety and depression clinical perspectives. Front Neuroendocrinol 35: 320-330.

16. Cyranowski JM, Frank E, Young E, Shear MK (2000) Adolescent onset of the gender difference in lifetime rates of major depression: a theoretical model. Arch Gen psychiatry 57: 21-27.

17. Fox M, Sandman CA, Davis EP, Glynn LM (2018) A longitudinal study of women's depression symptom profiles during and after the postpartum phase. Depression and anxiety 35: 292-304.

18. Buysse DJ, Reynolds III CF, Monk TH, Berman SR, Kupfer DJ (1989) The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. Psychiatry Res 28: 193-213.

19. de Matos MG, Marques A, Peralta M, Gaspar T, Simões C, et al. (2019) Sleep in adolescence: sex matters? Sleep Sci 12: 138.

20. Zendels P, Ruggiero A, Gaultney JF, O'Connor (2021) Gender differences affecting the relationship between sleep attitudes, sleep behaviors and sleep outcomes. Cogent Psychology 8: 1979713.

21. Donner NC, Lowry CA (2013) Sex differences in anxiety and emotional behavior. Pflügers Archi 465: 601-626.

22. Jalnapurkar I, Allen M, Pigott T (2018) Sex differences in anxiety disorders: A review. J Psychiatry Depress Anxiety 4: 3-16.

23. Vahedi A, Krug I, Westrupp EM (2019) Crossover of parents' work-family conflict to family functioning and child mental health. Journal of Applied Developmental Psychology 62: 38-49.

24. Otten D, Tibubos AN, Schomerus G, Brähler E, Binder H, et al. (2021) Similarities and differences of mental health in women and men: a systematic review of findings in three large German cohorts. Front Public Health 9: 553071.

25. Nilsen SA, Bergström M, Sivertsen B, Stormark KM, Hysing M (2022) Sleep in adolescence: Considering family structure and family complexity. J Marriage and Family 84:1152-1174.

26. Maratia F, Bacaro V, Crocetti E (2023) Sleep is a family affair: A systematic review and meta-analysis of longitudinal studies on the interplay between adolescents' sleep and family factors. Int J Environ Res Public Health 20: 4572.