Malaysian Young Adults' Attachment Patterns: The Relationship with Experienced Parenting and Co-Sleeping

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The present study investigated the role of experienced parenting styles and previous co-sleeping habits in attachment patterns among Malaysian young adults. Eighty-six participants completed the Sleep Arrangement Questionnaire, Parental Authority Questionnaire, and Experiences in Close Relationship-Revised-General Short Form. Hierarchical multiple regression revealed that, while controlling for demographic covariates, an authoritative parenting style significantly related to a lower level of attachment anxiety, whereas an authoritarian parenting style significantly related to a higher level of attachment anxiety. However, the relationship was only found in the dimension of attachment anxiety but not in attachment avoidance, suggesting that attachment avoidance may be more open to influences of later interpersonal experiences other than parent-child relationships. Besides, total co-sleeping frequency was not related to attachment patterns. Future research is encouraged to investigate different aspects (location/duration/reason) of co-sleeping that could affect the outcome.

Keywords: parenting styles, co-sleeping, sleeping arrangement, attachment patterns, young adults

In social relationships, some individuals are comfortable in being emotionally close and dependent on others, whereas some individuals appear to have difficulty in trusting other people, are uncomfortable with intimacy, or tend to be worried about being abandoned. The attachment theory (Bowlby, 1969) postulated that these individual differences can be conceptualized as attachment security, which is largely rooted in the differences in the quality of the repeated interaction with one's caregiver in the early years of life. Specifically, the caregiver's response to attachment behaviors of their child shapes internal working models which consist of mental representations of the self (whether oneself is worthy of love) and of others (whether other people are reliable and supportive). These models guide future expectations, interpretations, and behaviors in attachment relationships. Secure attachment, which involves positive mental representations of the self and of others, allows individuals to possess healthy and satisfying social relationships, seek social support in times of need, and be able to regulate emotion effectively (Calkins & Leerkes, 2004; Gillath et al. 2016; Meyer et al., 2015).

After decades of research, there is a consensus that attachment insecurity can be addressed by two dimensions: attachment anxiety and attachment avoidance (Ravitz

et al., 2010). Individuals who have a high level of attachment anxiety tend to possess negative mental representations of the self and worry about being abandoned or unloved by others, whereas individuals who have a high level of attachment avoidance tend to possess negative mental representations of others, hence being uncomfortable with emotional closeness and have difficulties in building trust towards others.

Internal working models are dynamic and continue to develop throughout the lifespan based on ongoing attachment experiences. However, the previously developed internal working models influence the quality of later interpersonal experiences (Gillath et al. 2016). Therefore, the quality of parent-child interactions is important in building a strong foundation for attachment security in adulthood. The present study focuses on investigating two aspects involved in parent-child interaction, namely co-sleeping habits and parenting styles.

Co-sleeping and attachment

Co-sleeping in the present study refers to both bed-sharing and room-sharing between the caregiver and the child (McKenna & Volpe, 2007). Whether or not co-sleeping should be encouraged remains a controversial topic for decades (Mileva-Seitz et al., 2017). On the one hand, individualistic societies generally consider co-sleeping undesirable because of the perception that it will hinder the development of independence among children (Germo et al., 2007; Morelli et al., 1992). On the other hand, some scholars argued that co-sleeping might help in fostering attachment security, which, in turn, would lead to better psychosocial development and autonomy (Barry, 2019). The latter claim was based on the idea that co-sleeping increases the physical proximity and physical contact between the caregiver and the child, which is important in fostering secure attachment (Norholt, 2020). Sleeping in proximity would make signals of attachment needs more easily noticeable by the caregiver (Barry, 2019). Blunden et al. (2011) highlighted that responding to night-time infant crying is as important as responding to daytime crying in influencing attachment security, as infants will be confused and perceive the caregiver as inconsistently available if daytime crying yields responses but night-time crying does not. Moreover, co-sleeping may increase the physical contact between caregiver and child, and physical touch is an important element in fostering attachment security (Duhn, 2010).

The relationship between co-sleeping and attachment security has hardly been studied. A study conducted by Mileva-Seitz et al. (2016) found that infants who never bed-share with their parents by 2 months of age were significantly more likely to manifest insecure attachment at the age of 14 months compared to children who had any bed-sharing. However, when the 'any bed-sharing' group was further separated into two groups, namely 'some bed-sharing' (i.e., bed-sharing ranged from once per month to three times per week) and 'frequent bed-sharing' (i.e., bed-sharing more than four times per week), only the 'some bed-sharing' group were found to be more likely to develop secure attachment (and not insecure attachment), whereas infants who frequently bed-shared did not have a greater tendency to develop secure attachment. These findings led the authors to speculate that the tendency to bed-share with children may indirectly reflect the flexibility and responsiveness of the parents in caregiving practices. For example, parents who reported 'some bed-sharing' may bed-share with the children on the days when the children have sleeping problems, illness, or nightmares, whereas parents who reported 'never bed-share' may be more rigid in parenting practices and do not allow bed-sharing even on such occasions, indirectly suggesting a possibility that the outcomes were caused by the variation in general caregiving patterns instead of the practice of co-

sleeping per se. In short, the relationship between co-sleeping and attachment security remains unclear.

Research on the potential benefits of co-sleeping on other related psychological aspects yielded mixed findings. For example, while some studies found that co-sleeping was associated with greater self-esteem (Crawford, 1994), greater social independence during preschool age (Keller & Goldberg, 2004), and less discomfort toward intimacy during adulthood (Lewis et al., 1988). However, other studies have found that co-sleepers exhibit more emotional and behavioral problems than solitary sleepers (Cortesi et al., 2008). Co-sleeping was also found to be associated with mother's sleep disruption, marital and co-parenting distress, and lower emotional availability for children at bedtime (Luijk et al., 2013; Teti et al., 2016). These could adversely influence the development of secure attachment.

Notably, these mixed results might vary based on the context. Most studies were done in Western individualistic countries. Co-sleeping is not a norm in most individualistic cultures, which emphasize independence (Mileva-Seitz et al., 2017). It is possible that parents in such cultures only decide to co-sleep with their children when there is a need to cope with (emotional) problems. This might explain the relationship between co-sleeping and emotional and behavioral problems (Cortesi et al., 2008). Moreover, it was found that only parents who reactively co-sleep with children perceive children's night waking as disruptive and problematic (Keller & Goldberg, 2004; Lozoff et al., 1984), causing parental stress.

In contrast, co-sleeping is a normative practice in collectivistic cultures as it is considered a way of fostering family bonding (Mileva-Seitz et al., 2017). Malaysia is generally considered a collectivistic culture (Bochner, 1994), and has a high prevalence of practising co-sleeping (ranging from 65.4% to 84.1% in previous studies; Lope et al., 2010; Mindell et al., 2010). In such a context, where co-sleeping is considered desirable and practiced as a norm, the outcome of co-sleeping may be different. Hence, the present study sought to answer the following research question: can previous co-sleeping frequency relates to attachment patterns among Malaysian young adults?

Parenting styles and attachment

One of the most influential theories of parenting style was proposed by Baumrind (1971), which categorizes parenting styles into three prototypes, namely authoritative, authoritarian, and permissive. Parents who adopt an authoritative parenting style tend to be flexible, encourage bidirectional communication, be warm and responsive to the children's emotional needs, and use reasoning rather than punitive strategies to guide their children. In contrast, parents who adopt an authoritarian parenting style tend to show little affective warmth, expect their children to obey their instructions without providing an explanation, and use punitive discipline strategies. Parents who adopt a permissive parenting style tend to provide few guidelines and supervision on the children's behaviors and are tolerant towards children's impulses.

Previous studies found that an authoritative parenting style was positively associated with secure attachment (Awuah, 2013; Doinita & Maria, 2015; Fang et al., 2004; Karavasilis et al., 2003), whereas an authoritarian parenting style tends to be positively associated with anxious (Kwan & Leung, 2017; Shorey et al., 2003) and avoidant attachment (Hatamy et al., 2011; Shorey et al., 2003). A permissive parenting style does not clearly relate to attachment security, and previous findings were mixed, with some studies revealing that it correlated positively with secure attachment (Zeinali et al., 2011), while others found that it correlated positively with anxious attachment (Moazen et al., 2014) or dismissive (i.e., avoidant)

attachment (Kwan & Leung, 2017). The present study sought to replicate the established relationship between parenting styles and attachment patterns in Malaysia, by using a dimensional approach to measure both constructs. Moreover, parenting styles were used as a covariate when investigating the relationship between co-sleeping and attachment, to allow the examination of the effect of co-sleeping while considering the potential confound of overall parenting styles on this relationship.

The present study

Based on the findings of Mileva-Seitz et al. (2016), we implied that the relationship between co-sleeping and attachment security cannot be clearly understood unless parenting styles are taken into consideration. It is also important to replicate the relationships between parenting styles and attachment security before including it as a covariate to make implications regarding the relationships between co-sleeping and attachment security.

The present study aimed to bridge the literature gap by investigating whether parenting styles and previous co-sleeping habits are related to attachment patterns among Malaysian young adults. The results should inform whether certain types of parenting styles, and co-sleeping should be promoted in Malaysia. Young adults were targeted in this study to allow investigation of the long-term effect of co-sleeping on attachment security.

Based on past theories and research, the following hypotheses were made:

(1) parenting styles will significantly relate to attachment patterns even after controlling for demographic covariates. Specifically, an authoritative parenting style will relate to lower attachment anxiety and avoidance, whereas authoritarian and permissive parenting styles will relate to higher attachment anxiety and avoidance,

(2) previous co-sleeping frequency will significantly relate to lower attachment anxiety and attachment avoidance, even after controlling for parenting styles and demographic covariates.

Method

Participants

Eighty-six Malaysians (77 females, 9 males) were recruited on a voluntary basis through internal recruitment emails and a research participant recruitment platform of the University of Nottingham. The age of participants ranged from 18 to 25 years old (M = 21.1, SD = 1.44 years). The demographic characteristics of the participants are presented in Table 1. The final sample size was deemed adequate according to an a priori power analysis conducted with G*Power 3.1 (Faul et al., 2009), which suggested that a minimum of 85 participants was required to observe a medium (f^2 = .15) and significant (α = .05) effect with sufficient statistical power (1 – β = .80) in the R^2 increase of linear multiple regression with 9 total predictors and 4 tested predictors.

Table 1

Participant's Demographic Characteristics (N = 86)

Demographic Characteristics	*n*	(%)	*M*	*SD*
Age			21.06	1.44
Sex				
Male	9	(10.5)		
Female	77	(89.5)		
Ethnicity				
Malay	12	(14.0)		
Chinese	70	(81.4)		
Indian	1	(1.2)		
Other	3	(3.5)		

Total monthly household income		
RM0-1999	3	(3.5)
RM2000-3999	11	(12.8)
RM4000-5999	9	(10.5)
RM6000-7999	10	(17.9)
RM8000-9999	12	(14.0)
> RM10000	41	(47.7)
Primary Caregiver		
Mother	69	(80.2)
Father	3	(3.5)
Grandmother	7	(8.1)
Grandfather	1	(1.2)
Maid/Nanny	4	(4.7)
Other	2	(2.3)
Caregiver's education level		
None	1	(1.2)
Primary school	5	(5.8)
Some high School	1	(1.2)
High school	22	(25.6)
Diploma/ Foundation	23	(26.7)
Bachelor's degree	26	(30.2)
Master's degree	6	(7.0)
Doctoral degree	2	(2.3)

Instruments

Perceived parenting styles

Participants were first asked to indicate one primary caregiver who performed most of the caregiving tasks and spent the most time with them as they were growing up. The Parental Authority Questionnaire (PAQ; Buri, 1991) was used to measure the participants' perceived parenting behaviors of the indicated primary caregiver. The PAQ consists of three subscales (authoritative, authoritarian, and permissive), with 10 items in each subscale. Examples of the items include 'as I was growing up, once family policy had been established, he/she discussed the reasoning behind the policy with the children in the family' (authoritative), 'as I was growing up he/she did not allow me to question any decision he/she had made' (authoritarian), and 'as I was growing up, he/she seldom gave me expectations and guidelines for my behavior' (permissive). Participants rated the extent to which they agreed with each statement on a 5-point Likert scale ranging from 1 = 'strongly disagree' to 5 = 'strongly agree'. The total score for each subscale ranged from 10 to 50. The higher the sum of scores in a subscale indicates a higher perceived degree of use of the corresponding parenting style. The internal consistency was $\alpha = .86$ for the authoritative subscale, $\alpha = .88$ for the authoritarian subscale, and $\alpha = .78$ for permissive subscale. We used the full scale of all three subscales as outcome measures.

Co-sleeping frequency

A Sleep Arrangement Questionnaire was designed to ask participants about their sleeping locations from 0 to 18 years old in 3-year intervals (i.e., 0 to 3 years old, 3 to 6 years old, etc.). The questions asked were 'when you were 0 to 3 years old, where did you usually sleep?' and 'which location did you sleep as well?'. Each of the questions was followed by a question asking, 'how often did you remember sleeping in that location?' and participants responded on a 5-point Likert scale ranging from 0 = 'never' to 4 = 'always'. The frequency of co-sleeping for each age interval was coded based on the participants' response to the frequency questions if the participants reported that they slept in the same room or same bed with their primary caregiver. Co-sleeping

frequency for participants who did not report co-sleeping with their primary caregiver was coded as 0. The total co-sleeping frequency for each participant was derived by summing the frequency in all age intervals, which ranged from 0 to 24.

Global attachment patterns

The Experiences in Close Relationships - Revised - General Short Form (ECR-R-GSF; Wilkinson, 2011) was administered to measure participants' global attachment patterns. The ECR-R-GSF consists of two subscales (attachment anxiety and attachment avoidance), with 10 items for each subscale. Examples of the items include 'I often worry that other people close to me don't really love me' (attachment anxiety), and 'I prefer not to show others how I feel deep down' (attachment avoidance). Participants rated the extent to which they agree with each statement on a 5-point Likert scale ranging from 1 = 'strongly disagree' to 5 = 'strongly agree'. Seven items were reverse scored. The higher the sum of scores in a subscale indicates a higher degree of the corresponding attachment orientation. The total score for each subscale ranged from 10 to 50. Internal consistency was α =.88 for attachment anxiety and α =.86 for attachment avoidance.

Procedure

Ethical approval was obtained from the Science and Engineering Research Ethics Committee of the University of Nottingham prior to data collection (identification number: WYM261021).

All data were collected anonymously through an online survey platform named Qualtrics. Upon written consent, participants completed a set of demographic questionnaires, the Sleep Arrangement Questionnaire, the PAQ, and the ECR-R-GSF. Completing the entire study took around 15 minutes.

Results

Bivariate Pearson's correlation analysis of all variables is presented in Table 2. Total co-sleeping frequency was positively correlated with age (r = .22) and monthly household income (r = -.26). Authoritative parenting style was negatively correlated with authoritarian parenting style (r = -.54) but positively correlated with permissive parenting style (r = .56). Attachment anxiety was negatively correlated with authoritative parenting style (r = -.31) and positively correlated with authoritarian parenting style (r = .33). There was a weak positive correlation between attachment anxiety and attachment avoidance (r = .25).

To examine whether perceived parenting styles and total co-sleeping frequency was related to attachment anxiety, a three-step hierarchical multiple regression was conducted with attachment anxiety as the dependent variable. Covariates (age, sex, ethnicity, monthly household income, caregiver's education level) were entered at step 1 of the regression to control for any potential confounding effects. Parenting styles (authoritative, authoritarian, and permissive) were entered in step 2 to examine whether parenting styles were related to attachment anxiety after controlling for the above-mentioned covariates. Total co-sleeping frequency was entered in step 3 to examine whether co-sleeping was related to attachment anxiety beyond the effect of parenting styles and the covariates. The regression statistics are presented in Table 3. The hierarchical multiple regression revealed that the included covariates did not contribute significantly to the regression model, $F(5,80) = .91$, $p = .476$. Adding parenting styles at step 2 explained an additional 15.3% of the variance in attachment anxiety, and the change in R^2 was significant, $F(3,77) = 4.95$, $p = .003$, $f^2 = .19$. Adding total co-sleeping frequency at

Table 2

Correlations between Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age	1.00										
2. Sex	.17	1.00									
3. Ethnicity	-.01	-.11	1.00								
4. Monthly household income	-.19	.02	-.07	1.00							
5. Caregiver's education level	-.04	-.14	-.16	.26*	1.00						
6. Authoritative parenting style	.01	-.13	.18	-.09	-.02	1.00					
7. Authoritarian parenting style	-.16	-.02	-.14	.09	.12	-.54**	1.00				
8. Permissive parenting style	.12	-.05	.03	-.13	-.19	.56**	-.62**	1.00			
9. Total co-sleeping frequency	.22*	-.09	.05	-.26*	.10	.14	-.07	-.03	1.00		
10. Attachment anxiety	-.08	.01	-.20	-.04	-.03	-.34**	.33**	-.11	.03	1.00	
11. Attachment avoidance	-.01	.12	-.03	-.06	-.07	-.16	-.01	-.06	-.04	.25*	1.00

step 3 did not results in any significant R^2 changes, $F(1,76) = 1.29$, $p = .260$, $f^2 = .02$.

To examine whether perceived parenting styles and total co-sleeping frequency were related to attachment avoidance, a three-step hierarchical multiple regression was conducted with attachment avoidance as the dependent variable, with covariates (age, sex, ethnicity, monthly household income, caregiver's education level) and parenting style entered in step 1 and step 2 respectively, and total co-sleeping frequency entered in step 3. The hierarchical multiple regression revealed that the covariates did not contribute significantly to the regression model, $F(5,80) = .37$, $p = .868$. Adding parenting styles at step 2 did not results in any significant R^2 changes, $F(3,77) = .92$, $p = .436$, $f^2 = .03$. Adding total co-sleeping frequency at step 3 also did not results in any significant R^2 changes, $F(1,76) = .032$, $p = .857$, $f^2 = .001$.

Discussion

The main aim of the present study was to examine whether previous co-sleeping frequency and perceived parenting styles were related to attachment patterns among Malaysian young adults. The first hypothesis, that authoritative parenting styles would be related to lower attachment anxiety and avoidance, whereas authoritarian and permissive parenting styles would be related to higher attachment anxiety and avoidance, was partially supported by the results. The second hypothesis, that the total co-sleeping frequency would significantly be related to lower attachment anxiety and avoidance, was not supported by the results.

Regarding the relationships between parenting styles and attachment anxiety, the findings were generally consistent with the hypothesis and previous findings in other cultures (e.g., Awuah, 2013; Doinita & Maria, 2015). The results showed that an authoritative parenting style was significantly related to a lower level of attachment anxiety, whereas an authoritarian parenting style was significantly related to a higher level of attachment anxiety. This indicates that caregiving practices that involve adequate affective warmth and consideration of the child's point of view are important in preventing the development of a negative model of the self; in contrast, a parenting style that does not make any adjustment based on the child's emotional needs and greater risk of fostering a negative model of the self among the children, leading them to be preoccupied with approval and rejection of significant others (Feeney & Woodhouse, 2016). Besides, the findings revealed that a permissive parenting style was not related to attachment anxiety, which could be because the level of parental warmth is not explicitly described in the typology of a permissive parenting style, and the permissive subscale of PAQ was designed to be unrelated to parental warmth (Buri, 1991). Overall, these findings suggested that authoritative parenting style should be promoted to foster attachment security, whereas authoritarian parenting style should not be promoted.

Regarding the relationships between parenting styles and attachment

Table 3

Hierarchical Multiple Regression Analyses for Predicting Attachment Anxiety from Covariates, Perceived Parenting Styles, and Total Co-Sleeping Frequency

Predictor	*b*	*SE B*	*β*	R^2	ΔR^2	*p*
Step 1				.05		.476
Age	-.54	.68	-.09			.432
Sex	-.21	3.18	-.01			.947
Ethnicity	-3.48	1.79	-.23			.055
Monthly household income	-.28	.62	-.05			.653
Caregiver's education level	-.36	.74	-.06			.627
Step 2				.21	.15	
						.003*
Authoritative	-.34	.15	-.30			.025*
Authoritarian	.29	.14	.29			.038*
Permissive	.31	.18	.24			.098
Step 3				.22	.01	.260
Total co-sleeping frequency	.17	.15	.13			.260

Note. Sex and ethnicity were dummy coded; Sex (0 = *male*, 1 = *female*), Ethnicity (0 = *Malay*, 1 = *Chinese*, 2 = *Indian*, 3 = *Other*).

* $p < .05$

involves excessive control may have a avoidance, the findings contradicted the

hypothesis and demonstrated that none of the parenting styles were related to attachment avoidance. One possible explanation for this finding is that attachment avoidance might be more open to influences of later interpersonal experiences as compared to attachment anxiety. Hence, while attachment anxiety in early adulthood continues to be influenced by previous parenting experiences, attachment avoidance may not. This explanation is consistent with the findings of Fraley et al. (2013) which demonstrated that the changes in the quality of best friendship over time were the most robust predictor of attachment avoidance among young adults, even more than parent-child factors such as maternal sensitivity. Similarly, a meta-analysis conducted by Kim et al. (2021) revealed that attachment avoidance is less stable over time than attachment anxiety. As Fraley and Roisman (2019) suggested, it would be worthy for future research to also include the ongoing interpersonal experiences in understanding adult attachment security.

Concerning the relationships between co-sleeping frequency and attachment patterns, the results contradicted the hypothesis and demonstrated that the previous co-sleeping frequency was not related to both dimensions of attachment insecurity. Possibly, this lack of relationship may be results from a ceiling effect, since co-sleeping is a normative practice in Malaysia. However, the distribution (M = 6.1, SD = 6.4) of the reported co-sleeping frequency in the present sample was relatively broad, hence eliminating the potential ceiling effect as an explanation of the findings.

In an attempt to eliminate the confound of overall parenting styles in the relationship, the present study controlled for parenting styles but still yielded non-significant results, suggesting that co-sleeping was neither beneficial nor detrimental to attachment security in early adulthood. Nonetheless, these findings should be interpreted cautiously because the present study only investigated the frequency of co-sleeping and did not include other factors that could affect the outcomes, such as the intention to practice co-sleeping. The intention of the caregiver is important because it could affect the quality of the interaction between the caregiver and the child. For example, it was found that only caregivers who practice co-sleeping solely as an approach to cope with certain situations (e.g., crowdedness in the house, children's sleep problems) perceive children's night waking as disruptive and experience co-sleeping as stressful, while caregivers who intentionally practice co-sleeping did not (Keller & Goldberg, 2004; Lozoff et al., 1984). This in turn causes a difference in the emotional availability of the caregiver during the night-time. Interestingly, co-sleeping frequency in the present sample was significantly and negatively correlated with monthly household income, indicating a possibility that co-sleeping was practiced because of limited space in the house among some participants. Hence, even in a culture that practices co-sleeping as a norm, the within-culture variation in the factors associated with co-sleeping should not be neglected. Overall, while the current findings suggested that previous co-sleeping frequency is not related to attachment security in young adulthood, other aspects of co-sleeping might be possible to link to attachment security.

Moreover, this finding contradicted previous studies that found a relationship between co-sleeping and attachment or other related outcomes (e.g., Keller & Goldberg, 2004; Mileva-Seitz et al., 2016). One notable difference between the present study and these previous studies is the age range of the sample, whereby the present study focuses on young adults whereas those studies investigated young children. This could possibly imply that the effect of co-sleeping may not persist until adulthood even though there might be an effect in

childhood. Nonetheless, this speculation should be tested with a longitudinal method in future studies.

Limitations and future directions

The present study has a few limitations. Firstly, inference of the causal relationships between the studied variables was limited by the cross-sectional and correlational nature of the study. Secondly, the limited diversity in the sample characteristics, including the socioeconomic status and ethnicity, limited the generalizability of the findings to the entire Malaysian population, especially to high-risk populations such as those in poverty. Moreover, the accuracy of the reported co-sleeping frequency may be compromised by the memory errors due to the retrospective nature of the study. A longitudinal method that assesses concurrent co-sleeping habits at several time points could increase precision in reflecting the reality and providing insight into the changes in the relationship over time. Future studies investigating co-sleeping should also consider including a broader aspect of variables that could affect the outcomes associated with co-sleeping. For example, whether the co-sleeping practice was intentional or reactive, and the night-time interaction associated with co-sleeping by adopting observational methods, such as using recorded video clips.

Conclusion

The present study aimed to investigate whether perceived parenting style and previous co-sleeping frequency are related to attachment patterns among Malaysian young adults. Taken together, the findings demonstrated that an authoritative parenting style is beneficial in fostering attachment security among Malaysians, whereas an authoritarian parenting style is associated with a higher level of attachment anxiety. However, the relationship was only found in attachment anxiety but not in attachment avoidance, suggesting that attachment avoidance might be more open to the influence of later interpersonal experiences. Besides, total co-sleeping frequency was not related to attachment patterns, suggesting that parents do not have to worry about its influence on attachment security while deciding whether or not they want to practice co-sleeping. However, future research is encouraged to investigate different aspects of co-sleeping that could affect attachment to better understand any other potential influence of co-sleeping on attachment security.

References

Awuah, D. (2013). *The relationship between parenting style, attachment style and marital satisfaction among married men and women* [Doctoral dissertation, University of Ghana]. UGSpace. http://197.255.68.203/handle/123456789/5548

Barry, E. S. (2019). Co-sleeping as a proximal context for infant development: The importance of physical touch. *Infant Behavior and Development, 57*, 101385. https://doi.org/10.1016/j.infbeh.2019.101385

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology, 4*(1), 1–103. https://doi.org/10.1037/h0030372

Blunden, S. L., Thompson, K. R., & Dawson, D. (2011). Behavioral sleep treatments and nighttime crying in infants: challenging the status quo. *Sleep Medicine Reviews, 15*(5), 327–334. https://doi.org/10.1016/j.smrv.2010.11.002

Bochner, S. (1994). Cross-cultural differences in the self-concept: A test of Hofstede's individualism/collectivism distinction. *Journal of Cross-cultural Psychology, 25*(2), 273–283.

https://doi.org/10.1177/002202219 4252007

Bowlby, J. (1969). *Attachment and loss.* Basic Books.

Buri, J. R. (1991). Parental authority questionnaire. *Journal of Personality Assessment*, *57*(1), 110–119. https://doi.org/10.1207/s15327752j pa5701_13

Calkins, S. D., & Leerkes, E. M. (2004). Early attachment processes and the development of emotional self-regulation. *Handbook of Self-regulation: Research, Theory, and Applications*, 324–339.

Cortesi, F., Giannotti, F., Sebastiani, T., Vagnoni, C., & Marioni, P. (2008). Cosleeping versus solitary sleeping in children with bedtime problems: child emotional problems and parental distress. *Behavioral Sleep Medicine*, *6*(2), 89–105. https://doi.org/10.1080/154020008 01952922

Crawford, C. J. (1994). Parenting practices in the Basque Country: Implications of infant and childhood sleeping location for personality development. *Ethos, 22*(1), 42-82. https://doi.org/10.152 5/eth.1994.22.1.02a00020

Doinita, N. E., & Maria, N. D. (2015). Attachment and parenting styles. *Procedia-Social and Behavioral Sciences*, *203*, 199–204. https://doi.org/10.1016/j.sbspro.20 15.08.282

Duhn, L. (2010). The importance of touch in the development of attachment. *Advances in Neonatal Care*, *10*(6), 294-300. https://doi.org/10.1097/ANC.0b013 e3181fd2263

Fang, P. M. S. (2004). *The relation between parenting style and Chinese mother-child attachment security: Mediator and moderator effects* [Doctoral dissertation, University of Southern California]. ProQuest Dissertations and Theses Global.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. https://doi.org/10.3758/BRM.41.4. 1149

Feeney, B. C., & Woodhouse, S. S. (2016). Caregiving. In J. Cassidy & P. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 827–851). Guilford Press.

Fraley, R. C., & Roisman, G. I. (2019). The development of adult attachment styles: four lessons. *Current Opinion in Psychology, 25*, 26–30. https://doi.org/10.1016/j.copsyc.20 18.02.008

Fraley, R. C., Roisman, G. I., Booth-LaForce, C., Owen, M. T., & Holland, A. S. (2013). Interpersonal and genetic origins of adult attachment styles: A longitudinal study from infancy to early adulthood. *Journal of Personality and Social Psychology, 104*(5), 817–838. https://doi.org/10.1037/a0031 435

Germo, G. R., Chang, E. S., Keller, M. A., & Goldberg, W. A. (2007). Child sleep arrangements and family life: Perspectives from mothers and fathers. *Infant and Child Development: An International Journal of Research and Practice*, *16*(4), 433–456. https://doi.org/10.1002/icd.521

Gillath, O., Karantzas, G. C., & Fraley, R. C. (2016). *Adult attachment: A concise introduction to theory and research*. Academic Press.

Hatamy, A., Fathi, E., Gorji, Z., & Esmaeily, M. (2011). The Relationship between parenting styles and Attachment Styles in men

and women with infidelity. *Procedia-Social and Behavioral Sciences*, *15*, 3743–3747. https://doi.org/10.1016/j.sbspro.2011.04.366

Karavasilis, L., Doyle, A. B., & Markiewicz, D. (2003). Associations between parenting style and attachment to mother in middle childhood and adolescence. *International Journal of Behavioral Development*, *27*(2), 153–164. https://doi.org/10.1080/01650250244000015

Keller, M. A., & Goldberg, W. A. (2004). Co-sleeping: Help or hindrance for young children's independence? *Infant and Child Development: An International Journal of Research and Practice*, *13*(5), 369–388. https://doi.org/10.1002/icd.365

Kim, S. H., Baek, M., & Park, S. (2021). Association of parent‐child experiences with insecure attachment in adulthood: a systematic review and meta‐analysis. *Journal of Family Theory & Review*, *13*(1), 58–76. https://doi.org/10.1111/jftr.12402

Kwan, H. C., & Leung, M. T. (2017). The structural model in parenting style, attachment style, self-regulation and self-esteem for smartphone addiction. *IAFOR Journal of Psychology & the Behavioral Sciences*, *3*(1), 85–103. https://doi.org/10.22492/ijpbs.3.1.06

Lewis, R. J., & Janda, L. H. (1988). The relationship between adult sexual adjustment and childhood experiences regarding exposure to nudity, sleeping in the parental bed, and parental attitudes toward sexuality. *Archives of Sexual Behavior*, *17*(4), 349–362. https://doi.org/10.1007/BF01541812

Lope, R. R., Kong, W. K., Lee, V. W. M., Tiew, W. T., & Wong, S. Y. (2010). Sleep position and infant care practices in an urban community in Kuala Lumpur. *Medical Journal of Malaysia*, *65*(1), 45.

Lozoff, B., Wolf, A. W., & Davis, N. S. (1984). Cosleeping in urban families with young children in the United States. *Pediatrics*, *74*(2), 171–182. https://doi.org/10.1542/peds.74.2.171

Luijk, M. P., Mileva-Seitz, V. R., Jansen, P. W., van IJzendoorn, M. H., Jaddoe, V. W., Raat, H., Hofman, A., Verhulst, F. C., & Tiemeier, H. (2013). Ethnic differences in prevalence and determinants of mother–child bed-sharing in early childhood. *Sleep Medicine*, *14*(11), 1092–1099. https://doi.org/10.1016/j.sleep.2013.04.019

McKenna, J. J., & Volpe, L. E. (2007). Sleeping with baby: An internet-based sampling of parental experiences, choices, perceptions, and interpretations in a western industrialized context. *Infant and Child Development: An International Journal of Research and Practice*, *16*(4), 359–385. https://doi.org/10.1002/icd.525

Meyer, D. D., Jones, M., Rorer, A., & Maxwell, K. (2015). Examining the associations among attachment, affective state, and romantic relationship quality. *The Family Journal*, *23*(1), 18–25. https://doi.org/10.1177/1066480714547698

Mileva-Seitz, V. R., Bakermans-Kranenburg, M. J., Battaini, C., & Luijk, M. P. (2017). Parent-child bed-sharing: The good, the bad, and the burden of evidence. *Sleep Medicine Reviews*, *32*, 4–27.

https://doi.org/10.1016/j.smrv.2016.03.003

Mileva‐Seitz, V. R., Luijk, M. P., Van Ijzendoorn, M. H., Bakermans‐Kranenburg, M. J., Jaddoe, V. W., Hofman, A., Verhulst, F. C., & Tiemeier, H. (2016). Association between infant nighttime sleep location and attachment security: No easy verdict. *Infant Mental Health Journal*, *37*(1), 5–16. https://doi.org/10.1002/imhj.21547

Mindell, J. A., Sadeh, A., Wiegand, B., How, T. H., & Goh, D. Y. (2010). Cross-cultural differences in infant and toddler sleep. *Sleep Medicine*, *11*(3), 274-280. https://doi.org/10.1016/j.sleep.2009.04.012

Moazen, T., Aghaei, A., & Golparvar, M. (2014). Predicted students' attachment styles based on parents parenting styles. *Journal of Instruction and Evaluation*, *7*(25), 87–99.

Morelli, G. A., Rogoff, B., Oppenheim, D., & Goldsmith, D. (1992). Cultural variation in infants' sleeping arrangements: Questions of independence. *Developmental Psychology*, *28*(4), 604–613. https://doi.org/10.1037/0012-1649.28.4.604

Norholt, H. (2020). Revisiting the roots of attachment: A review of the biological and psychological effects of maternal skin-to-skin contact and carrying of full-term infants. *Infant Behavior and Development*, *60*, 101441. https://doi.org/10.1016/j.infbeh.2020.101441

Ravitz, P., Maunder, R., Hunter, J., Sthankiya, B., & Lancee, W. (2010). Adult attachment measures: A 25-year review. *Journal of Psychosomatic Research*, *69*(4), 419-432. https://doi.org/10.1016/j.jpsychores.2009.08.006

Shorey, H. S., Snyder, C. R., Yang, X., & Lewin, M. R. (2003). The role of hope as a mediator in recollected parenting, adult attachment, and mental health. *Journal of Social and Clinical Psychology*, *22*(6), 685–715. https://doi.org/10.1521/jscp.22.6.685.22938

Teti, D. M., Shimizu, M., Crosby, B., & Kim, B.-R. (2016). Sleep arrangements, parent–infant sleep during the first year, and family functioning. *Developmental Psychology*, *52*(8), 1169–1181. https://doi.org/10.1037/dev0000148

Wilkinson, R. B. (2011). Measuring attachment dimensions in adolescents: Development and validation of the Experiences in Close Relationships—Revised—General Short Form. *Journal of Relationships Research*, *2*(1), 53–62. https://doi.org/10.1375/jrr.2.1.53

Zeinali, A., Sharifi, H., Enayati, M., Asgari, P., & Pasha, G. (2011). The mediational pathway among parenting styles, attachment styles and self-regulation with addiction susceptibility of adolescents. *Journal of Research in Medical Sciences*, *16*(9), 1105–1121.