

Research Article

# The Association between Parental Attachment and the Parenting: A Review and Preliminary Meta-analysis

Yi Huang<sup>\*a</sup>

[a] Department of Psychology, Faculty of Social Studies, Masaryk University, Czech Republic.

## Abstract

According to the internal working model, attachment is rooted in one's previous interactive experience, which can affect further interpersonal relationships through reaction to others, including the parent-child relationships. However, no meta-analysis examining the link between parental attachments and parenting styles was done before. This meta-analysis study aimed to examine the associations between parents' patterns of attachment and parenting styles. Sixteen published articles and 2342 participants were included in the analysis. It was found that parental secure attachment correlated with positive parenting, but no significant negative correlation emerged between secure attachment and negative parenting. Regarding maternal insecure attachment, the results showed it correlated with positive parenting negatively and significantly. Also, there was a significant association between the insecure attachment and negative parenting. This research suggests that parental attachment pattern is linked to parenting styles.

*Keywords:* parental; attachment; parenting; style; meta-analysis.

## Table of Contents

Positive and negative parenting styles

The theoretical and empirical association between parental attachment and parenting styles

Methods

Results

Discussion

Limitations

Conclusion

References

Psychological Thought, 2021, Vol. 14(2), 339-362, <https://doi.org/10.37708/psyct.v14i2.596>

Received: 2021-02-15. Accepted: 2021-08-13. Published (VoR): 2021-10-31.

Handling Editor: Natasha Angelova, South-West University "Neofit Rilski", Blagoevgrad, Bulgaria.

\*Corresponding author at: Masaryk University, Czech Republic. E-mail: [yihuangofchina@outlook.com](mailto:yihuangofchina@outlook.com)



This is an open access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

According to the attachment theory, people develop internal working models (IWM) that are defined as generalized mental representations of close relationships based on previous experiences with other people at times of stress. Especially, IWMs develop based on the early interaction with the primary caregivers (Bretherton, 1990; Main et al., 1985). Such representations of relationships with other people and their functioning in times of stress further affect interpersonal interactions (Schank, 1983). Thus, for parents, attachment style partially affects their parenting behaviors (including their responds to children during interactions), which provides the foundation of the development of attachment of the offspring. Eventually, this contributes to attachment transmission between generations (Sierau et al., 2013). A former review (Belsky & Fearon, 2008) supported the transmission of attachment exists through both mother-child and father-child interaction, even though most studies on human development and transmission of attachment have focused mainly on mothers, and the evidence from fathers is lacking.

Ample studies have indicated that parenting behavior plays a significant role in the development of the next generation. For example, for infants, good quality of early mother-child emotional dialogues promote infants' development of emotional understanding. It is worth noting that securely attached mothers are more likely to adopt positive parenting strategies, such as co-construct strategies, in dialogues to improve the quality of interaction (Hsiao et al., 2015). For toddlers, the mothers' dysfunctional parenting may lead to subsequent parent-child conflicts and children's problematic behaviors (Morawska & Sanders, 2007). For adolescents, parents' acceptance promotes their self-esteem, which is a protective

factor for emotional problems, while parents' strict discipline and psychological control increase adolescents' emotional problems, such as stress and depression (Finkenauer et al., 2005).

Due to the significant effects of parenting, this research conducted a meta-analysis to explore the relationship between parental attachment and parenting styles.

Bowlby (1978) emphasized that attachment develops in the context of interaction with significant others. Specifically, one's perceived security intensifies if the significant others respond sensitively and adequately to this individual's need for stress relief. Bowlby used the concept of the "internal working model" to describe the representation of attachment, which refers to the belief about the self, others, and "proximity maintenance" to significant others, to help understand and predict the environment (Bowlby, 1978; Pietromonaco & Barrett, 2000). Securely attached people hold positive beliefs while insecurely attached people feel insecure about their values, significant others, and others. Theoretically, from the life span perspective, such an internal working model affects one's emotion regulation, social interaction, and even mental health throughout the lifetime (Bowlby, 1979). Many empirical studies have supported and reinforced Bowlby's theory (Collins & Allard, 2001; Mikulincer et al., 2001; Mikulincer & Florian, 2003).

Scholars have continued to build on Bowlby's theory, which simply divides attachment into secure and insecure categories. For example, Adult Attachment Interview (AAI), developed by Main and colleagues, which is based on the record of one's previous experience of interaction with significant others (especially the primary caregivers), divides insecure attachment into dismissing type and preoccupied type (Main et al., 2008). Dismissing refers to "characterized by suppression or minimization of negative emotions or experiences on the AAI" and "overly involvement in attachment experiences, amplifying negative affect, and stray off-topic, telling lengthy and rambling stories" (Hsiao et al., 2015, p.46.). The Adult Attachment Scale (AAS) separates secure attachment into two dimensions: "comfort with emotional closeness" and "comfort with depending on or trusting in others" (Ravitz et al., 2010). The Adult Attachment Questionnaire (AAQ) assesses three dimensions: secure, anxious, and avoidant attachment,

where the latter two are parts of insecure attachment. The Experiences in Close Relationships (ECR) instrument confirmed the two dimensions of adult attachment using principal components analysis: anxious and avoidant.

### Positive and negative parenting styles

Regarding the significant influences of parent-child interaction on a child's emotional development, it was evaluated from the perspective of positive parenting and negative parenting respectively. Commonly, positive parenting refers to supportive parenting, such as warm and responsive parenting, while negative parenting refers to harsh parenting, including hostile parenting (Dallaire et al., 2006). The definition of positive and negative parenting could be more concrete. From the perspective of DeKlyen and colleagues (1998), in the very early stage of human beings' development, the sensitivity and scaffolding of parents represent positive parenting because only this kind of parent-child interaction allows a child to form secure interpersonal relationships. Otherwise, in this stage, insensitive and intrusive parenting represents negative parenting that can lead children to develop a rigid set of rules for their interpersonal relationships. As the child grows older, parents need to help that child learn emotional regulation. The parent needs to be aware of several key points in this stage to promote a child's ability to regulate emotion. First, acceptance of the child's emotion is essential, especially the negative emotion (e.g., anger). Second, the parent should transfer the strategies of recognition and management of emotion to the offspring (DeKlyen et al., 1998). Thus, parents of an older child need to accept the child's emotion and use scaffolding strategies to help the child master emotional regulation skills. In contrast, rejecting and ignoring a child's emotions are two negative parenting strategies.

Appropriate measurements corresponding to the definition of positive and negative parenting were developed; types of related measurements were created. For example, to assess infant's maternal behaviors, psychologists developed a coding system including six sub-scales: sensitivity (which refers to mother's ability to perceive and understand infant's emotion), warmth, joy (which refers to mother's enjoyment in the parent-infant interaction),

dis-engagement (which refers to mother's rejection to connect with the infant); hostility (which refers to mother's hostile communications with infant, e.g., teasing behaviors); intrusive/controlling behaviors (such as mother's interference with infant's goal, instead of the scaffolding) (Ainsworth et al., 1978; Lamb, 1978; Levendosky et al., 2006). The first three sub-scales reflect positive parenting, and the latter three represent negative parenting. Additionally, as an instrument measuring parenting styles towards older children and adolescents, Parenting Style and Dimensions Questionnaire (PSDQ) contains some features of positive parenting and negative parenting: positive parenting that is supportive yet still regulates children's misbehaviors and deficits in emotional regulation and negative parenting that includes "physical coercion," "verbal hostility," "punishment," and "indulgence" (Oliveira et al., 2018). These measurements are in line with DeKlen's theory.

## **The theoretical and empirical association between parental attachment and parenting styles**

According to Bowlby's classical attachment theory, the conceptions of "behavioral attachment system" and "caregiving behavioral system" explain the parenting behaviors. The biologically based attachment behavioral system refers to the offspring's organization of behaviors about "set-goal of seeking" and "maintaining proximity" to the significant others (Bowlby, 1982, p.668-669.). Even though the system affects most significantly infants, Bowlby noted that it influences behaviors across the life span, including parenting behaviors of the future generation. Moreover, Bowlby claimed that the caregiving behavioral system is biologically-based, and it allows parents to "usefully be approached from the same ethologically inspired [i.e., behavioral systems] viewpoint" (Bowlby & Base, 1988, p4.). Both the behavioral attachment system of offspring and parent's caregiving behavioral system are necessary to fulfill the basic need to survive. Based on infant's "behavioral attachment system" and caregiver's "caregiving behavioral system", the representation of one's attachment gradually forms namely the internal working model (IWM). Scholars argued that IWMs serve as templates for current and future relationships and, as such, are the

hypothesized mechanism by which early attachment experiences are carried forward to influence functioning in later relationships, including the parent-child relationship (Jones et al., 2014).

Therefore, theoretically, compared to the insecurely attached people, securely attached people have a more positive internal working model because their primary caregivers ensure that their surviving needs are satisfied. When these children become parents, they are more likely to adopt positive parenting in their parent-child relationship as well.

In addition, the theory has been empirically supported. For instance, based on the theory of Adult Attachment Interview, it was found that securely attached mothers are more sensitive to their infants' distress compared to insecurely attached mothers. In contrast, mothers with insecure attachment adopt more intrusive and hostile parenting (Riva Crugnola et al., 2018). Similarly, one research on the adult attachment that utilized the self-reported Experience of Close Relationships Scale suggested that mothers with insecure attachment may face difficulties in self-regulation of emotion and adopt parenting that is less supportive of the adolescent children's distress (Jones et al., 2014). Analogously, another study using the Adult Attachment Questionnaire reported a similar conclusion in that avoidant and anxious attachment of caregivers predicted the negative parenting, for example, weak sensitivity to child's distress and intrusiveness to child's autonomy (Safyer et al., 2019).

Based on the antecedent theory and empirical studies, it is plausible that parents' attachment patterns are linked to parenting styles. However, the related narrative and meta-analyses of the association of parental attachment and parenting are very scant.

The current study aimed to examine the correlation between parental attachment (secure vs.. insecure attachment) and parenting styles (positive vs.. negative). The primary assumptions were that (1) parents' secure attachment and positive parenting are positively associated; (2) parental secure attachment relates to negative parenting negatively; (3) parental insecure attachment and positive parenting are negatively associated; and (4) the association between parental insecure attachment and negative parenting is significantly positive.

## Methods

This meta-analysis research adopted most procedures outlined in the "Preferred Reporting Items for Systematic Reviews and Meta-analyses Reporting Guideline" (Liberati et al., 2009). However, in this research, only one researcher conducted the literature search; thus, the step involving the comparison of search results by two independent researchers was skipped (see Figure 1). The concrete procedures are the following.

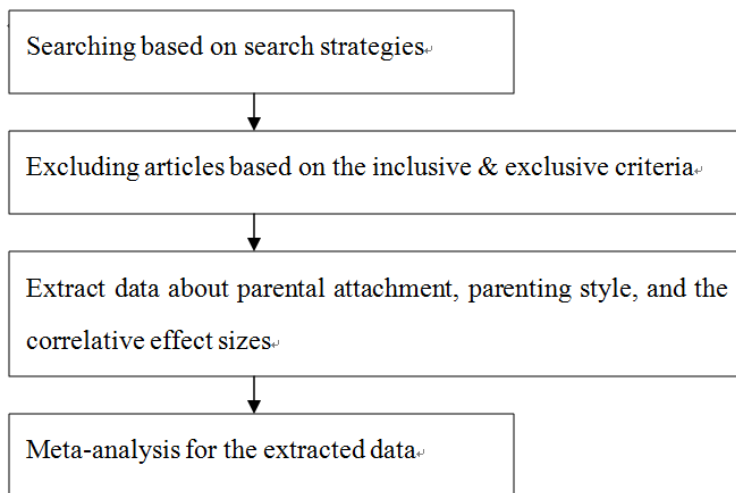


Figure 1. *The procedures of the meta-analysis*

### Search strategies

The systematic search was done in the APA database (PsycINFO and PsycARTICLES). Since most studies on parent-child attachment have focused on the role of mother, the keywords used were "(maternal attachment) AND (emotion OR affect)." The publication time was limited to the period from January of 2000 to January of 2020 since The Experiences in Close Relationships Scale, which is the most comprehensive and widely used self-report instrument nowadays, was created in 1998.

### Inclusive and exclusive criteria

To be included in the review, the articles must meet the following criteria: (1) investigate primary caregivers with children under 18 years old; (2) utilize quantitative research methods; (3) measure the caregiver's attachment, the child's attachment is not necessary here; (4)

include the correlation effect size of caregiver's attachment and caregiver's behavior in parent-child interaction; and (5) be written in English.

**Data analysis procedures**

The R package "meta" was used to calculate the correlation effect sizes (Schwarzer, 2007). It should be noted that studies used different instruments to measure adult attachment and considered multiple dimensions of parenting evaluation, one publication could have several correlations. Therefore, this research adopted the aggregation strategies used in a previous meta-analysis study (Cooke et al., 2019). Specifically, (1) if a study included several dimensions of attachment, the effect size of the global secure or insecure attachment style was aggregated; (2) if studies used more than one dimension to evaluate positive or negative parenting behaviors, the effect sizes of global negative or positive parenting were aggregated. The computation procedures of the meta-analysis were: (1) examining the heterogeneity by Cochran Q and I-square test; (2) interpreting the fixed and random effect model according to the heterogeneity findings; (3) testing the publication bias. If bias existing, it was necessary to correct the bias by "trimfill" method (Schwarzer et al., 2015).

## Results

After reading the abstracts of 295 articles, 16 articles that met the inclusion criteria were used for meta-analysis. Table 1 summarizes all articles included in this review.

Table 1.  
*The Summary of All Articles Used in Meta-Analysis*

Study References	Sample of caregivers	Sample N	Age of caregivers	Age of children	Measurement for adult attachment	Measurement for parenting behaviors
Waters et al., 2018	Mothers	34	From 27 to 36 years old	From 4 to 5 years old	Adult Attachment Interview	Storytelling task
Safyer et al., 2019	Couples	382	From 22 to 53 years old	From 1 to 13 months	Adult Attachment Questionnaire	Teaching task in the lab
Bost et al., 2014	Primary caregivers	497	Average age=32.45 years old	From 2.5 to 3.5 years old	Relationship Scales Questionnaire	The Coping with Children's Negative Emotions Scale



Borelli et al., 2016	Primary caregivers	117	Average age=37.65 years old	Average age=9.8 years old	Experience in Close Relationship_ Revised Scale	Parent Development Interview _Revised
Jones et al., 2014	mothers	197	Average age=46.65 years old	From 1 to 13 years old	Experience in Close Relationship	Coping with Children's Negative Emotions Scale-Adolescent Version
Riva Crugnola et al., 2018	mothers	41	From 25 to 40 years old	3 moths	Adult Attachment Interview	Emotional availability scales
Lawson et al., 2018	mothers	219	Average age=30.4 years old	From 3 to 6 years old	Experience in Close Relationship_ Revised Scale	Autobiographical Emotional Events Dialogue
Riva Crugnola et al., 2013	mothers	41	From 25 to 44 years old	9 moths	Adult Attachment Interview	Infant and Caregiver Engagement Phase
Leerkes et al., 2015	mothers	259	Average age=25.1 years old	6 moths	Adult Attachment Interview	Infant Crying Questionnaire
Cassibba et al., 2012	Mothers with clinical infants; Mothers with non-clinical infants	40 20	Average age=32.52 years old	14 moths	Adult Attachment Interview	Emotional Availability Scales
Sierau et al., 2013	parents	104	Average age=24 years old	6 moths	Adult Attachment Scale	Maternal and paternal postnatal attachment scale
Kulkofsky, 2010	mothers	265	Average age=33.2 years old	From 3 to 8 years old	Experience in Close Relationship_ Revised Scale	Caregiver-Child Reminiscence Scale
Biringen et al., 2000	mothers	35	From 28 to 48 years old	5 years old	Adult Attachment Interview	The Emotional Availability Scales
Diniz et al., 2019	Adolescent mothers	35	From 14 to 19 years old	12 moths	Adult Attachment Scale	Observation of Competitive Task
Licata et al., 2016	mothers	56	From 26 to 46 years old	From 3 to 6 years old	Vulnerable Attachment Style Questionnaire	The Emotional Availability Scales
Hardman et al., 2016	mothers	116	Average age=39.23	Average age=8.63	Experience in Close Relationship	Parental Feeding Strategies Questionnaire



### The association between secure attachment and positive parenting

Cochran Q test ( $Q = 6.99$ ,  $df = 8$ ,  $p = .54$ ) and I-square statistic ( $I^2 = 0\%$ ) indicated low heterogeneity of researches. However, due to the small scale of studies included ( $k < 20$ ), both Q and  $I^2$  results should be interpreted cautiously (Joanna Briggs Institute, 2011). Both the fixed effect model and the random effect yielded a significant positive correlation between parental secure attachment and positive parenting with the same effect sizes ( $k = 9$ ,  $N = 609$ ,  $r = .22$ ,  $p < .01$ ). Moreover, the funnel plot suggests a possible bias.

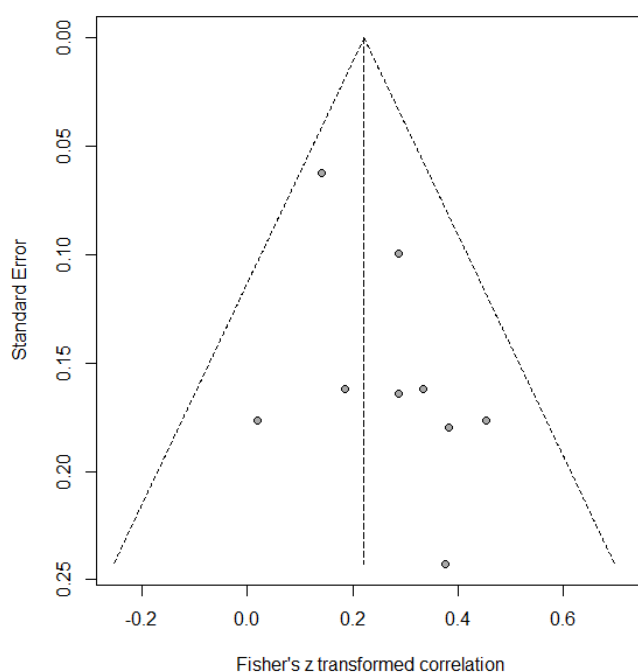


Figure 2. The funnel plot before modification: The association between secure attachment and positive parenting

Thus, following the method of "trimfill" (Schwarzer et al., 2015), with additional three cases, the publication bias could be modified.. After modification, the heterogeneity was not significant ( $Q = 11.43$ ,  $df = 11$ ,  $p = .41$ ) and very low ( $I^2 = 3.7\%$ ). Again, because the number of included studies was small, the results from both the fixed and random effect models were considered. Both models indicated that the relationship

between the parental secure attachment and positive parenting was significant ( $p < .01$ ), with the effect size of 0.19.

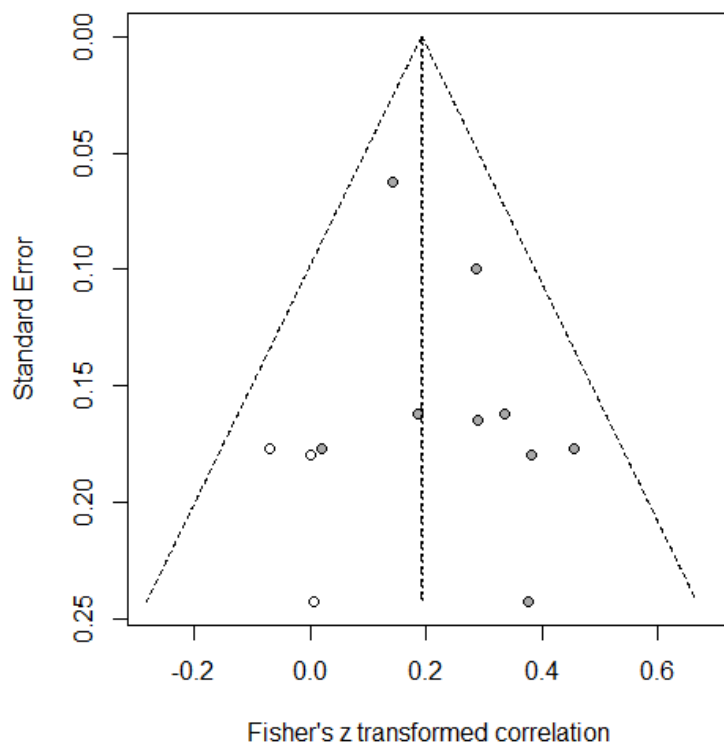


Figure 3. *The funnel plot after modification: The association between secure attachment and positive parenting*

### **The association between secure attachment and negative parenting**

Fixed-effect model ( $k = 3$ ,  $N = 341$ ,  $r = -.05$ ,  $p = .38$ ) and random effect model ( $k = 3$ ,  $N = 341$ ,  $r = -.11$ ,  $p = .52$ ) did not yield the same correlations between secure attachment and negative parenting. The heterogeneity was high ( $I^2 = 81.4\%$ ) and significant ( $Q = 10.78$ ,  $df = 2$ ,  $p < .01$ ). According to the result of the "trimfill" approach, there was no publication bias.

### **The association between insecure attachment and positive parenting**

The result of heterogeneity-test ( $Q = 579.40$ ,  $df = 10$ ,  $p < .01$ ,  $I^2 = 98.3\%$ ) indicated that the random effect model, which revealed insignificant negative relationship between insecure attachment and positive parenting ( $k = 11$ ,  $N = 1885$ ,  $r = -.25$ ,  $p$

= .17), should be accepted. Nonetheless, since less than 20 were included, the fixed-effect model, which suggested significant and negative association ( $r = -.33, p < .01$ ), should be considered. However, according to the funnel plot, publication bias should be acknowledged.

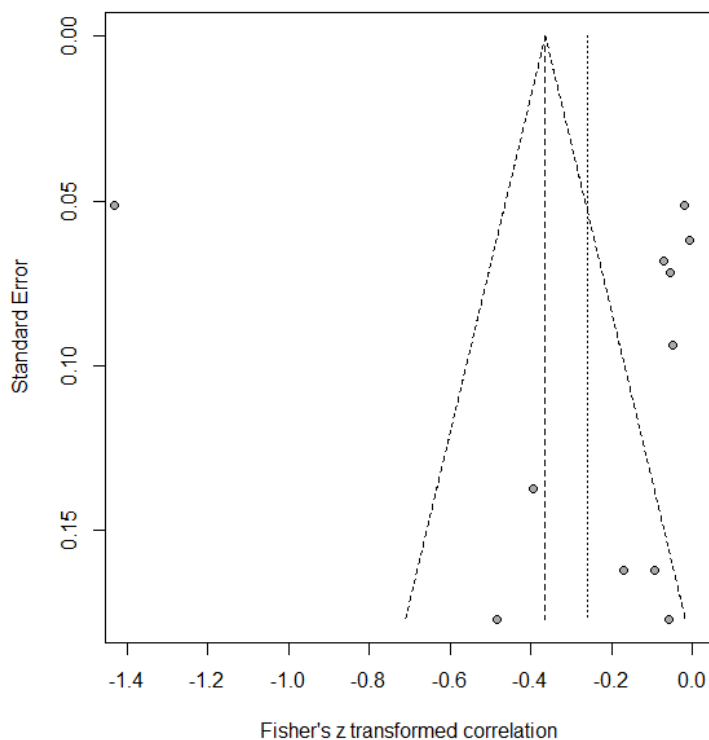


Figure 4. *The funnel plot before modification: The association between insecure attachment and positive parenting*

After six additional cases were replenished for correcting the publication bias (see Figure 5 in Appendix) by "trimfill" method, both fixed-effect model ( $r = -.80, p < .01$ ) and random effect model ( $r = -.73, p < .01$ ) showed the negative link between parental insecure attachment and positive parenting. The heterogeneity after the modification was significant and high ( $Q = 3082.46, df = 16, p < .01, I^2 = 99.5%$ ).

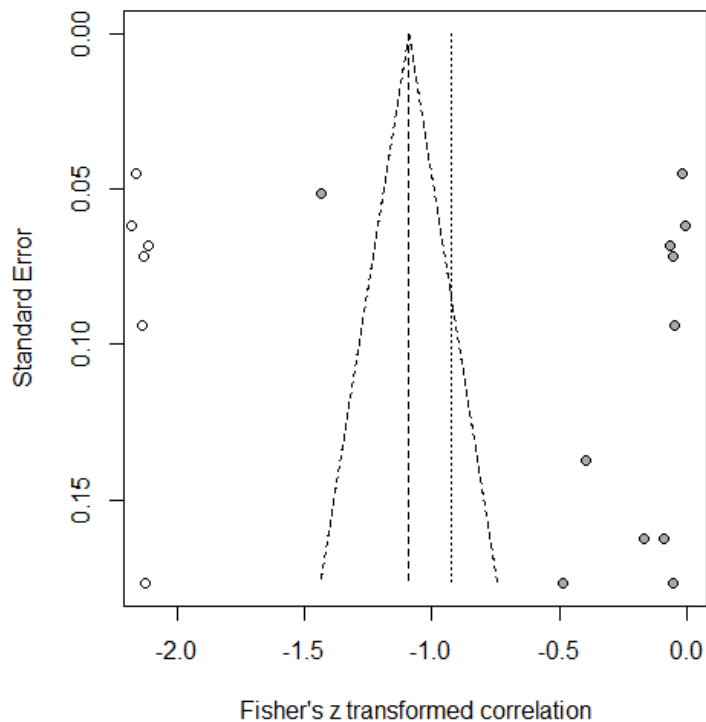


Figure 5. *The funnel plot after modification: The association between insecure attachment and positive parenting*

### **The association between insecure attachment and negative parenting**

The significant effect size for the relationship between the parental insecure attachment and negative parenting ( $k = 6$ ,  $N = 1274$ ,  $r = 0.22$ ,  $p < .01$ ) was verified by fixed and random effect size models. The results based on the Cochran Q test revealed that the heterogeneity was not significant ( $Q = 6.99$ ,  $df = 8$ ,  $p = .54$ ), and the I-square statistic suggested that the degree of heterogeneity was very low ( $I^2 = 0.00\%$ ). In addition, the result of "trimfill" methods indicated no need to add cases for the balance of standard errors, which means this conclusion, was unbiased.

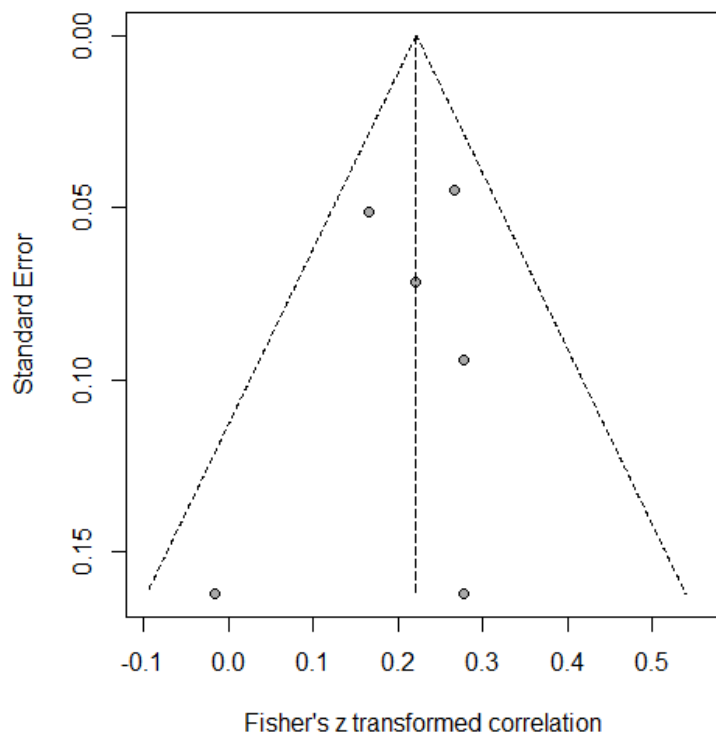


Figure 6. The funnel plot: the association between insecure attachment and negative parenting

## Discussion

The purpose of this meta-analysis was to evaluate the strength of the correlation between the pattern of the parental attachment and parenting styles. This research consisted of the original assumptions partly. In detail, all associations were verified except for the expected significant negative association of secure attachment and negative parenting.

### The association between secure attachment and positive parenting

The result revealed a positive correlation between secure attachment and positive parenting consistent with the internal working model theory, which argues that secure attachment develops based on available support to relieve stress from caregivers at an early stage. Furthermore, such kind of support can help one accept a "range of emotions" and regulate emotions in an interpersonal relationship, including the

parent-child relationship, in adulthood (DeOliveira et al., 2005). Besides, the finding echoes previous studies which found a positive correlation with secure attachment and positive parenting (Bost et al., 2014; Hardman et al., 2016; Jones et al., 2014; Riva Crugnola et al., 2013; Safyer et al., 2019).

### **The association between secure attachment and negative parenting**

In this research, it was not found a significant correlation between secure attachment and negative parenting. In addition, the effect size was low ( $r = -.11$ ). The first explanation could be that we included only three studies on the parental secure attachment and negative parenting in the current meta-analysis. The existing studies have been more interested in the association of secure attachment with positive parenting. Second, all three studies were all about mother-infant interactions, which means the conclusions cannot be extended to the adolescents' group. More studies on the association between parents' attachment and parenting of adolescents are needed in the future. Finally, the insignificant relationship between parental secure attachment and negative parenting can be explained by the parent's belief. For example, the authoritarian parenting, which is considered to be a negative parenting style that has several negative effects (Fuentes et al., 2015; Muñoz et al., 2017), can help develop offspring's secure attachment to some extent, because authoritarian parents promote children's understanding of rules and the ability to establish proper expectations, which are beneficial for building good interpersonal relationships (Cramer, 2019; Kochanska et al., 1989). According to the IWM theory, such securely attached people will "orientate" children to enhance their social development in some circumstances, but sometimes "the method of orientation" could be negative, such as the punishment after children's misbehaviors.

### **The association between insecure attachment and positive parenting**

This study found a significant negative association between insecure attachment and positive parenting. From the internal working model's perspective, people whose

primary caregivers did not respond positively to survival needs when they were infants develop an insecure type of attachment question their self-value and accessibility of significant others (Bowlby, 1978). Thus, in their parent-child relationship, they will adopt "love and withdrawal parenting" (Magai et al., 2000). Moreover, this finding is consistent with a review which summarized that compared to parents with secure attachment, insecure parents implement less effective positive parenting, for example, they demonstrate less parental involvement, less caring behaviors, lower parental acceptance, and less authoritative parenting (Jones et al., 2014).

### **The association between insecure attachment and negative parenting**

According to meta-analysis results, insecure attachment and negative parenting are negatively associated. Likewise, this finding is consistent with an internal working model theory as well, which proposes that people form insecure attachment because of the negative parenting from the primary caregivers (such as insensitivity to emotional state and intrusion into their autonomy), and they are likely to use the same parenting behaviors when they become parents. The review, which argued that compared to securely attached parents, insecurely attached parents use more negative parenting behaviors, such as "more observed intrusiveness, greater psychological control more authoritarian parenting" (Jones et al., 2014), provided evidence to support this model.

### **Limitations**

It should be acknowledged that the present study had some limitations. First, this research only adopted APA databases to select articles for the meta-analysis. The current study also suggests other researchers can organize the studies in other databases beyond psychology, such as PubMed. Second, most studies included here focused on mother-child relationships; thus, father-child interaction should be explored in future studies.



## Conclusion

This research first synthesizes the evidence about the association between parental attachment and parenting style by meta-analysis. And the results suggest that secure attachment correlates with positive parenting, although the correlation between secure attachment and negative parenting is not insignificant. The insecure attachment is associated with negative parenting and it has a negative association with positive parenting. However, it is recommended to include evidence from other databases resources beyond psychology, like PubMed. Meanwhile, it would be interesting to focus on fathers' attachment patterns and parenting in the future.

## Funding

This study was supported by a grant MUNI/A/0955/2019 Home, Development, and Democracy: 2020 of Grant Agency of Masaryk University.

## Other Support/Acknowledgement

The author has no support to report.

## Competing Interests

The author has declared that no competing interests exist.

## References

- Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Erlbaum.
- Belsky, J., & Fearon, R. M. P. (2008). *Precursors of attachment security Handbook of attachment: Theory, research, and clinical applications (pp. 295–316)*. Guilford Press.
- Biringen, Z., Brown, D., Donaldson, L., Green, S., Krcmarik, S., & Lovas, G. (2000). Adult Attachment Interview: Linkages with dimensions of emotional availability for mothers and their pre-kindergarteners. *Attachment and Human Development, 2*(2), 188–202.  
<https://doi.org/10.1080/14616730050085554>
- Borelli, J. L., St.John, H. K., Cho, E., & Suchman, N. E. (2016). Reflective functioning in parents of school-aged children. *American Journal of Orthopsychiatry, 86*(1), 25–36.  
<https://doi.org/10.1037/ort0000141>
- Bost, K. K., Wiley, A. R., Fiese, B., Hammons, A., McBride, B., Harrison, K., Donovan, S., Grigsby-Toussaint, D., Kim, J., Liechty, J., & Teran-Garcia, M. (2014). Associations between adult attachment style, emotion regulation, and preschool children's food consumption. *Journal of Developmental and Behavioral Pediatrics, 35*(1), 50–61.  
<https://doi.org/10.1097/01.DBP.0000439103.29889.18>
- Bowlby, J. (1978). Separation, anxiety and anger. *Attachment and loss*. Vol. 2. Pimlico.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. Tavistock Publications.
- Bowlby, J. (1982). Attachment and loss: retrospect and prospect. *American Journal of Orthopsychiatry, 52*(4), 664.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.
- Boyd, J. H., & Weissman, M.M. (1981). Epidemiology of Affective Disorders: A Re-Examination of Future Directions. *Archives of General Psychiatry, 38*, 1039–1046.

- Bretherton, I. (1990). Communication patterns, internal working models, and the intergenerational transmission of attachment relationships. *Infant Mental Health Journal*, 11(3), 237–252.
- Cassibba, R., van Ijzendoorn, M. H., & Coppola, G. (2012). Emotional availability and attachment across generations: Variations in patterns associated with infant health risk status. *Child: Care, Health and Development*, 38(4), 538–544. <https://doi.org/10.1111/j.1365-2214.2011.01274.x>
- Collins, N. L., & Allard, L. M. (2001). Cognitive representations of attachment: The content and function of working models. *Blackwell Handbook of Social Psychology: Interpersonal Processes*, 2, 60–85.
- Cooke, J. E., Kochendorfer, L. B., Stuart-Parrigon, K. L., Koehn, A. J., & Kerns, K. A. (2019). Parent-child attachment and children's experience and regulation of emotion: A meta-analytic review. *Emotion*, 19(6), 1103–1126. <https://doi.apa.org/doi/10.1037/emo0000504>
- Cramer, P. (2019). Narcissism and Attachment: The Importance of Early Parenting. *The Journal of Nervous and Mental Disease*, 207(2), 69–75. [Link]
- Dallaire, D. H., Pineda, A. Q., Cole, D. A., Ciesla, J. A., Jacquez, F., LaGrange, B., & Bruce, A. E. (2006). Relation of positive and negative parenting to children's depressive symptoms. *Journal of Clinical Child & Adolescent Psychology*, 35(2), 313–322. [https://doi.org/10.1207/s15374424jccp3502\\_15](https://doi.org/10.1207/s15374424jccp3502_15)
- DeKlyen, M., Speltz, M. L., & Greenberg, M. T. (1998). Fathering and early-onset conduct problems: Positive and negative parenting, father-son attachment, and the marital context. *Clinical Child and Family Psychology Review*, 1(1), 3–21.
- DeOliveira, C. A., Moran, G., & Pederson, D. R. (2005). Understanding the link between maternal adult attachment classifications and thoughts and feelings about emotions. *Attachment and Human Development*, 7(2), 153–170. <https://doi.org/10.1080/14616730500135032>

- Diniz, E., Brandão, T., & Koller, S. (2019). Attachment and social support matters: a longitudinal moderated mediation on the link between maternal depression and maternal behaviours in at-risk adolescent mothers: Adult attachment, depression, social support and maternal behaviours. *Early Child Development and Care*, 0(0), 1–13. <https://doi.org/10.1080/03004430.2019.1696784>
- Finkenauer, C., Engels, R. C. M. E., & Baumeister, R. F. (2005). Parenting behaviour and adolescent behavioural and emotional problems: The role of self-control. *International Journal of Behavioral Development*, 29(1), 58–69. <https://doi.org/10.1080/01650250444000333>
- Fuentes, M. J., Salas, M. D., Bernedo, I. M., & García -Martín, M. A. (2015). Impact of the parenting style of foster parents on the behaviour problems of foster children. *Child: Care, Health and Development*, 41(5), 704–711. <https://doi.org/10.1111/cch.12215>
- Hardman, C. A., Christiansen, P., & Wilkinson, L. L. (2016). Using food to soothe: Maternal attachment anxiety is associated with child emotional eating. *Appetite*, 99, 91–96. <https://doi.org/10.1016/j.appet.2016.01.017>
- Hsiao, C., Koren-Karie, N., Bailey, H., & Moran, G. (2015). It takes two to talk: Longitudinal associations among infant-mother attachment, maternal attachment representations, and mother-child emotion dialogues. *Attachment and Human Development*, 17(1), 43–64. <https://doi.org/10.1080/14616734.2014.981671>
- Joanna Briggs Institute. (2011). JBI reviewers manual. *JBI Library of Systematic Reviews*, 1, 33–45.
- Jones, J. D., Brett, B. E., Ehrlich, K. B., Lejuez, C. W., & Cassidy, J. (2014). Maternal attachment style and responses to adolescents' negative emotions: The mediating role of maternal emotion Regulation. *Parenting*, 14, 235–257. <https://doi.org/10.1080/15295192.2014.972760>
- Kochanska, G., Kuczynski, L., & Radke-Yarrow, M. (1989). Correspondence between mothers' self-reported and observed child-rearing practices. *Child Development*, 56–63.

- Kulkofsky, S. (2010). Does why we reminisce reflect how you behave? Linking maternal reminiscing goals to child behavioural and emotional problems. *Infant and Child Development: An International Journal of Research and Practice*, 19(2), 204–216. <https://doi.org/10.1002/icd.644>
- Lamb, M. E. (1978). Qualitative aspects of mother-and father-infant attachments. *Infant Behavior and Development*, 1, 265–275.
- Lawson, M., Valentino, K., McDonnell, C. G., & Speidel, R. (2018). Maternal attachment is differentially associated with mother-child reminiscing among maltreating and nonmaltreating families. *Journal of Experimental Child Psychology*, 169, 1–18. <https://doi.org/10.1016/j.jecp.2017.12.005>
- Leerkes, E. M., Supple, A. J., O'Brien, M., Calkins, S. D., Haltigan, J. D., Wong, M. S., & Fortuna, K. (2015). Antecedents of maternal sensitivity during distressing tasks: integrating attachment, social information processing, and psychobiological perspectives. *Child Development*, 86(1), 94–111. <https://doi.org/10.1111/cdev.12288>
- Levendosky, A. A., Leahy, K. L., Bogat, G. A., Davidson, W. S., & Von Eye, A. (2006). Domestic violence, maternal parenting, maternal mental health, and infant externalizing behavior. *Journal of Family Psychology*, 20(4), 544–552. <https://doi.org/10.1037/0893-3200.20.4.544>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Annals of Internal Medicine*, 151(4), W-65. <https://doi.org/10.1016/j.jclinepi.2009.06.006>
- Licata, M., Zietlow, A. L., Träuble, B., Sodian, B., & Reck, C. (2016). Maternal emotional availability and its association with maternal psychopathology, attachment style insecurity and theory of mind. *Psychopathology*, 49(5), 334–340. <https://doi.org/10.1159/000447781>

- Magai, C., Hunziker, J., Mesias, W., & Culver, L. C. (2000). Adult attachment styles and emotional biases. *International Journal of Behavioral Development, 24*(3), 301–309. <https://doi.org/10.1080%2F01650250050118286>
- Main, M., Hesse, E., & Goldwyn, R. (2008). *Studying differences in language usage in recounting attachment history: An introduction to the AAI*. In H. Steele & M. Steele (Eds.), *Clinical applications of the Adult Attachment Interview* (pp. 31–68). The Guilford Press.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood : A move to the level of representation. *Monographs of the Society for Research in Child Development, 50*(1/2), 66–104. <https://doi.org/10.2307/3333827>
- Mikulincer, M., & Florian, V. (2003). Attachment style and affect regulation: Implications for coping with stress and mental health. *Blackwell Handbook of Social Psychology: Interpersonal Processes, 535–557*. <https://doi.org/10.1002/9780470998557.ch21>
- Mikulincer, M., Gillath, O., Halevy, V., Avihou, N., Avidan, S., & Eshkoli, N. (2001). Attachment theory and reactions to others' needs: Evidence that activation of the sense of attachment security promotes empathic responses. *Journal of Personality and Social Psychology, 81*(6), 1205. <https://doi.apa.org/doi/10.1037/0022-3514.81.6.1205>
- Morawska, A., & Sanders, M. R. (2007). Concurrent predictors of dysfunctional parenting and maternal confidence: Implications for parenting interventions. *Child: Care, Health and Development, 33*(6), 757–767. <https://doi.org/10.1111/j.1365-2214.2007.00758.x>
- Muñoz, J. M., Braza, P., Carreras, R., Braza, F., Azurmendi, A., Pascual-Sagastizábal, E., Cardas, J., & Sánchez-Martín, J. R. (2017). Daycare center attendance buffers the effects of maternal authoritarian parenting style on physical aggression in children. *Frontiers in Psychology, 8*, 391. <https://doi.org/10.3389/fpsyg.2017.00391>

- Oliveira, T. D., Costa, D. de S., Albuquerque, M. R., Malloy-Diniz, L. F., Miranda, D. M., & de Paula, J. J. (2018). Cross-cultural adaptation, validity, and reliability of the parenting styles and dimensions questionnaire – Short version (PSDQ) for use in Brazil. *Revista Brasileira de Psiquiatria*, *40*(4), 410–419. <https://doi.org/10.1590/1516-4446-2017-2314>
- Pietromonaco, P. R., & Barrett, L. F. (2000). The internal working models concept: What do we really know about the self in relation to others? *Review of General Psychology*, *4*(2), 155–175. <https://doi.org/10.1037%2F1089-2680.4.2.155>
- 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>
- Riva Crugnola, C., Gazzotti, S., Spinelli, M., Ierardi, E., Caprin, C., & Albizzati, A. (2013). Maternal attachment influences mother-infant styles of regulation and play with objects at nine months. *Attachment and Human Development*, *15*(2), 107–131. <https://doi.org/10.1080/14616734.2013.745712>
- Riva Crugnola, C., Ierardi, E., & Canevini, M. P. (2018). Reflective functioning, maternal attachment, mind-mindedness, and emotional availability in adolescent and adult mothers at infant 3 months. *Attachment and Human Development*, *20*(1), 84–106. <https://doi.org/10.1080/14616734.2017.1379546>
- Safyer, P., Volling, B. L., Schultheiss, O. C., & Tolman, R. M. (2019). Adult attachment, implicit motives, and mothers' and fathers' parenting behaviors. *Motivation Science*, *5*(3), 220–234. <https://doi.apa.org/doi/10.1037/mot0000112>
- Schank, R. C. (1983). *Dynamic memory: A theory of reminding and learning in computers and people*. Cambridge University Press.
- Schwarzer, G. (2007). meta: An R package for meta-analysis. *R News*, *7*(3), 40–45. [Link]
- Schwarzer, G., Carpenter, J. R., & Rücker, G. (2015). *Meta-analysis with R* (Vol. 4784). Springer. [Link]

Sierau, S., Jungmann, T., & Herzberg, P. Y. (2013). First-time parenthood under socially disadvantaged conditions: Linking caregivers' experiences of avoidance and relationship satisfaction with feelings of closeness to the infant. *Journal of Family Studies, 19*(2), 196–206. <https://doi.org/10.5172/jfs.2013.19.2.196>

Waters, H. S., Steiner, M. A., Zaman, W., Apetroaia, A., & Crowell, J. A. (2018). Iv. Co-Construction of Attachment Representations and Affect-Regulating Cognitions: the Role of Maternal Attachment Security. *Monographs of the Society for Research in Child Development, 83*(4), 60–73. <https://doi.org/10.1111/mono.12391>

## About the Author

Yi Huang is a Ph.D. student at Department of Psychology, Faculty of Social Studies, Masaryk University, Czech Republic.

## Corresponding Author's Contact Address [\[TOP\]](#)

E-mail: [yihuangofchina@outlook.com](mailto:yihuangofchina@outlook.com)

