



The Mediator Role of Empathy Ability in the Relationship Between Parenting Style and Sense of Security in 3–6-Year-Old Chinese Children

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Abstract

While many factors can influence children's sense of security, little research has examined the role of empathy ability in the association between parenting style and sense of security. The present study aims to examine whether empathy ability mediates the relationship between parenting style and sense of security among 3–6-year-old Chinese children. The participants in this study included 242 3–6-year-old Chinese children with their parents from three public kindergartens of China. The Parent Behavior Inventory (PBI), 3–6-year-old Children's Psychological Security Scale and Empathy Questionnaire were used to collect the data. The results indicate that two different parenting styles have significant differences for children's empathy ability and sense of security. This, supportive/engaged, has positive impact on empathy ability and sense of security. In turn, hostile/coercive has a negative impact on empathy ability and sense of security. We further test the indirect effect of empathy ability using bias-corrected bootstrap confidence intervals of mediation analysis in the SEM framework. Our results showed that empathy ability as a mediator has significant effect between the supportive/engaged and sense of security, as well as hostile/coercive and sense of security. The current findings provide useful information for understanding the interactions of relationship between parenting style, empathy ability, and sense of security in children.

Résumé Alors que de nombreux facteurs peuvent influencer le sentiment de sécurité des enfants, peu de recherches ont examiné le rôle de la capacité d'empathie dans l'association entre le style parental et le sentiment de sécurité. La présente étude vise à examiner si la capacité d'empathie médie la relation entre le style parental et le sentiment de sécurité chez les enfants chinois de 3 à 6 ans. Les participants à cette étude comprenaient 242 enfants chinois de 3 à 6 ans avec leurs parents de trois jardins d'enfants publics de Chine. Le Parent Behavior Inventory (PBI), l'échelle de sécurité psychologique des enfants de 3 à 6 ans et le questionnaire d'empathie ont été utilisés pour collecter les données. Les résultats indiquent que deux styles parentaux différents ont des différences significatives pour la capacité d'empathie et le sentiment de sécurité des enfants. Ceci, de soutien/engagement, a un impact positif

sur la capacité d'empathie et le sentiment de sécurité. À son tour, hostile/coercitif a un impact négatif sur la capacité d'empathie et le sentiment de sécurité. Nous testons en outre l'effet indirect de la capacité d'empathie en utilisant des intervalles de confiance bootstrap corrigés des biais de l'analyse de médiation dans le cadre SEM. Nos résultats ont montré que la capacité d'empathie en tant que médiateur a un effet significatif entre le soutien/engagement et le sentiment de sécurité, ainsi qu'hostile/coercitif et le sentiment de sécurité. Les résultats actuels fournissent des informations utiles pour comprendre les interactions de la relation entre le style parental, la capacité d'empathie et le sentiment de sécurité chez les enfants.

Resumen Si bien muchos factores pueden influir en la sensación de seguridad de los niños, pocas investigaciones han examinado el papel de la capacidad de empatía en la asociación entre el estilo de crianza y la sensación de seguridad. El presente estudio tiene como objetivo examinar si la capacidad de empatía media la relación entre el estilo de crianza y la sensación de seguridad entre los niños chinos de 3 a 6 años. Los participantes en este estudio incluyeron a 242 niños chinos de 3 a 6 años con sus padres de tres jardines de infancia públicos de China. Se utilizaron el Inventario de Comportamiento de los Padres (PBI), la Escala de Seguridad Psicológica Infantil de 3 a 6 años y el Cuestionario de Empatía para recopilar los datos. Los resultados indican que dos estilos de crianza diferentes tienen diferencias significativas en la capacidad de empatía y el sentido de seguridad de los niños. Esto, de apoyo / compromiso, tiene un impacto positivo en la capacidad de empatía y la sensación de seguridad. A su vez, hostil / coercitivo tiene un impacto negativo en la capacidad de empatía y la sensación de seguridad. Además, probamos el efecto indirecto de la capacidad de empatía utilizando intervalos de confianza de arranque corregidos por sesgo del análisis de mediación en el marco SEM. Nuestros resultados mostraron que la capacidad de empatía como mediador tiene un efecto significativo entre la sensación de apoyo / compromiso y la seguridad, así como la sensación hostil / coercitiva y de seguridad. Los hallazgos actuales brindan información útil para comprender las interacciones de la relación entre el estilo de crianza, la capacidad de empatía y el sentido de seguridad en los niños.

Keywords 3–6-Year-old children · Parenting style · Sense of security · Empathy ability

Introduction

The sense of security is a basic human need and the premise of each person's psychological health (Maslow et al., 1945), due to people are social and need to find their own belonging from others. According to the previous study (Bowlby, 1988), the sense of security of individual was directly influenced by his or her life experiences and domestic upbringing at the early age. Evidence supported the adverse effects on a child's sense of security brought by long-term isolation, a shortage of communication, and emotional degeneration in the parent–child sphere. Researcher has reported that the type of parenting a child receives plays

an important role in their social development (Saltalı & Arslan, 2012). For example, a research revealed that the democratic parental styles affect the social skills of the child positively and significantly, whereas the over protective parental styles affect negatively and significantly (Suat, 2018). Early childhood is a critical period for individual to establish sense of security. The establishment of the sense of security at early childhood stage is related to many factors, the most is related to the child's own temperament type, child's psychological development characteristics, and the parenting style.

For early childhood children, the main place of activity is the family, and the parenting style is an important factor that affects young children's sense of security. High-quality parenting can increase children's sense of security and develop social adaptability (Kaufmann et al., 2000); low-quality parenting can increase individual's social behavior problems such as antisocial behavior and conduct disorders. This study adopted quantitative data analysis to investigate the relationship between parenting styles and sense of security of 3–6-year-old children; meanwhile, empathy as a mediator of the relationship between parenting style and sense of security has been studied.

Literature Review

According to social learning theory, sense of security is a learned behavior (Bandura, 1977). Children who grow up in violent homes learn the techniques of being violent, as well as the justifications for this behavior (e.g., "It's for his own good"; Gelles, 1997). Parenting style as an important family factor has an important impact on children's sense of security. Parental warmth is a positive way of parenting, which means that the parenting behavior of parents is supportive, reactive and consistent, it also plays an important role in the mental health of young children (Bornstein, 2013). Increasing evidence suggested that good parenting style promote young children's sense of security (Gallarin et al., 2021). Recent studies also showed that parental warmth can positively predict children's sense of security (Díez et al., 2021). Our study applied the microsystem of ecological theory (Bronfenbrenner, 2005), which are the things that have direct contact with the child in their immediate environment, such as parents, siblings, teachers and school peerld. Children raised by warm parents are more likely to become independent, self-reliant, socially accepted, academically successful, and well-behaved, whereas children raised by distant and unaffectionate parents will increase the child's problem behavior and have a negative effect on children.

Supportive/engaged and hostile/coercive are two dimensions of parenting styles. Supportive/engaged parenting is defined by behaviors that display the parent's acceptance of the child through affection, shared activities, emotional and instrumental support, while hostile/coercive parenting refers to behaviors that manifest a negative affect or indifference toward the child and may include the use of threat, coercion, or physical punishment to affect the child's behavior (Lovejoy et al.,

1999). It was also proposed that supportive/engaged parenting approaches that minimize the probability of aggressive behavior in children include warm, supportive, sensitive, responsive parenting, parental involvement and parental monitoring (O'Connor, 2002). Another researcher reported that parental love can make child gets a sense of security and reduce loneliness (Gunarsa, 2008). In contrast, hostile/coercive parenting behaviors, including harsh discipline, hostile parental control, punitive/non-reasoning strategies, low levels of warmth and nurturance are associated with negative outcomes, such as higher levels of aggression, conduct problems and less pro-social behavior in children (Benzies et al., 2009). Children with parents who employed more supportive parenting practices showed fewer disruptive behaviors when compared to children who experienced coercive parenting practices (Denham et al., 2000). Additionally, children who are raised by parents with neglect parenting kind of upbringing children to become individuals who are less able to control themselves, have low self-esteem, are selfish, are not independent, do not excel in school (Keluarga, 2012). Furthermore, bad parenting can be extremely stressful and affect children's feeling of security. Therefore, the research hypothesis 1 was proposed: Supportive/engaged of parenting style can positive predict sense of security. Hostile/coercive of parenting style has negative predict sense of security.

However, there are still relatively few studies on how these two parenting styles affect children's sense of security, which need further research. Previous studies have proved that individual factors (such as cognitive factors) may be the proximal factors that affect children's sense of security (Costa & McCrae, 1980). That is, individual factors may be a mediating variable between environmental factors and children's sense of security. A large number of evidence have found that parenting styles affect empathy ability (Ma et al., 2020; Wang et al., 2021). In addition, parenting styles have a predictive effect on children's sense of security. Although some models which included parenting style, empathy ability and sense of security have been proposed, none of these models combined all these factors in a single study how this model fits the data in Asian countries is unknown. No empirical study has examined the mediating role of empathy ability in the relationship between parenting style and sense of security among 3–6-year-old children in China. From this point, this study introduced empathy ability from the perspective of individual cognition to investigate the mechanism of parenting styles on children's sense of security.

Empathy is a basic human capacity that is important in daily social life. It refers to the ability to respond effectively to emotions in others, aiming at reacting adaptively to another's needs, e.g. to console, support or spare the other person (Begeer et al., 2006; Hoffman, 1987). Parents' empathy for young children, which requires an awareness that others think of themselves in ways that are both similar to and different from the way you do, and that they also have emotions they associate with those thoughts and images. Studies have shown that parents with low empathy levels have difficulty understanding their children's behavioral motives, reducing the quality of parent-child interactions, which cause their children are more prone to anxiety (Cornell & Frick, 2007). Parents with a high level of empathy will pay emotional attention to their children's emotions and behaviors when they get along with their children, further to help children build a safe mentality. The high empathy level of parents can help their children

understand the needs and give them high-quality care, so children can trust their parents and develop their own sense of security (McDonald & Messinger, 2011). It was also proposed that father's support parenting style was a significant factor in predicting preadolescents' empathic behavior (Antonopoulou et al., 2012). Additionally, supportive parenting styles have been linked to empathy development in children. In contrast, lax parenting will hinder the development of empathy, which also contributes to behavioral orientation (Schaffer et al., 2009). Therefore, the research hypothesis 2 was proposed: Supportive/engaged can improve children's empathy ability; while hostile/coercive can reduce children's empathy ability.

At present, there are many studies on children's sense of security. Scholars pay more attention to the external activities or performance of children's parents, for example, emotional needs, emotional safety, homeland cooperation, education concept, etc. Few scholars pay attention to the inner characteristics of young children, such as empathy ability. There is no discussion about the relationship between parenting style, empathy and sense of security in the relevant literature. To fill this gap, we choose 3–6-year-old children and their parents as the research objects, and the parenting style, empathy level and sense of security of children were investigated. This research focused on the effects of parenting style on sense of security and explore the mediate mechanism role of empathy ability. Thus, it is aimed to help children's parents pay more attention to the emotional needs of each child and cultivate children's sense of security, more importantly, parents can provide energy for their children's mental health growth. The present study aims to examine the soundness of these expectations. Its research questions are as follows:

RQ1 Does Supportive/Engaged significantly predict the sense of security and empathy ability?

RQ2 Does Hostile/Coercive" significantly predict the sense of security and empathy ability?

Table 1 The data concerning the demographic information of the children involved in the study

Variable ($n = 242$)	Feature	Frequency	Percentage (%)
Gender	Girl	132	54.5
	Boys	110	45.5
Age	3	68	28.1
	4	97	40.1
	5	77	31.8
Families income	Low	51	21.1
	Middle	124	51.2
	High	67	27.7

RQ3 Does empathy ability plays a mediate role in the relationship between two parenting styles “Supportive/Engaged and Hostile/Coercive” and Sense of Security?

Method

Participants

We recruited participants from three public kindergartens in Wuhu city of Anhui province, located in the southeast of China. Approximately 300 consent forms were distributed to parents, and 250 parents agreed to let their child participate, with characteristics of having children with ages ranging from 3 to 6 years. The research procedure was carried out by collaborating with the kindergarten principal to ask permission and distribute questionnaires to the parents. Finally, 242 parents participated in the research. In the study, the data related with the gender and age of children and family income of their parents are presented in Table 1.

When Table 1 is examined, it was seen that 45.5% of the children are composed of girls and 54.5% of them are composed of boys who participated in the research. When the “Age” was viewed, it was seen that 28.1% of them are 3 years old, 40.1% of them were 4 years old, and 31.8% of them were 5 years old. In addition to this, it was seen that 21.1% of the children came from low income families were 51, 51.2% of children came from middle income families were 124, 27.7% of children came from high income families were 67.

Instruments

In this research, three instruments, namely Parent Behavior Inventory (PBI), 3–6-year-old Children’s Psychological Security Scale (CPSS) and Empathy Questionnaire (EmQue), were applied. The Parent Behavior Inventory (PBI) was used to assess the Parental Behavior. The instrument is especially preferred because it allows access to valuable data from parents themselves regarding of their styles and disciplining children. The other two instruments, 3–6-year-old Children’s Psychological Security Scale (CPSS), were used to assess children’s sense of security. Empathy Questionnaire (EmQue) was used to test the Empathy ability of children. In order to ensure the accuracy of questionnaires, these two questionnaires filled by the parents and teachers because children are young age.

Parental styles (Supportive/Engaged (S/E) and Hostile/Coercive (H/C)

The Parent Behavior Inventory (PBI) is a brief measure of parenting behavior for use with the parents of preschool-age (Lovejoy et al., 1999). The PBI version was used to test the parental styles in this study (Jia et al., 2013). It was used as a parent self-report measure, a report measure for others familiar with the parent, or as an observational rating scale. The questionnaire has two dependent scales, Supportive/Engaged (S/E) (e.g., “I have pleasant conversations with my child.”) and Hostile/Coercive (H/C) (e.g., “I lose my temper when my child doesn’t do something I ask him/her to do.”), each scale has 10 items. Respondents report the

frequency of each behavior on a 6-point scale (0 = "Never" to 5 = "Always"). In this study, the Cronbach's Alpha of the total Supportive/Engaged was 0.950, and the Cronbach's Alpha of the Hostile/Coercive was 0.947.

Sense of Security (SS)

3–6-year-old children's psychological security scale (CPSS) with a total of 28 items is currently the only scale that can measure children's sense of security in China (Hong, 2009), which compiled by Chinese scholar Hong Yanli. The scale measures children's sense of security through six dimensions: Sense of ability (SA), Sense of independence (SI), Sense of parent–child security (SPCS), Sense of teachers and friends security (STFS), Sense of public security (SPS) and Sense of timidity (ST). The responses report for each item on a 5-point Likert ranges from "1" ("Never") to "5" ("Always"). The higher total score, the lower level sense of security for children. The questionnaire was mainly filled by the parents for the children are young age and the part of teachers and friends security is filled by teachers. The reliability value of the original questionnaire is 0.930, indicating that the questionnaire has good internal consistency reliability. This study re-tested the reliability of the questionnaire. After testing, the Cronbach's Alpha in the scale is 0.929, the Cronbach's Alpha in each dimension distribute are 0.830, 0.822, 0.703, 0.836, 0.748, 0.811, respectively.

Empathy Ability (EA)

In this study, the Empathy Questionnaire (EmQue) was used to measure the empathy ability of 3–6-year-old children. There are a total of 20 questions and three measurement factors, which are emotion contagion (EC, 7 items), attention to others' emotions (AOF, 7 items) and prosocial responses to others' emotions (PA, 6 items). The items of scale involve parent–child interaction and peer interaction, the questionnaire was filled by children's parents to ensure the accuracy of the collected data. The original EmQue was developed by (Rieffe et al., 2010), tested by three Likert scale, but the samples of this study are Chinese children, so the formally tested scale was changed to a 5-point Likert score (1 means "never", 2 means "rarely", 3 means "sometimes", 4 means "often", 5 means "always") by (Yan et al., 2019). The Cronbach's Alpha of total scale was 0.926, and the Cronbach's Alpha of three factors were 0.865, 0.893 and 0.925, respectively.

Table 2 Fit statistics of the three scales

Tested variable	Scale	χ^2	χ^2/df	SRMR	RMSEA	IFI	TLI	CFI	RFI
Parental rearing styles	PBI	508.671	3.010	.0575	.091	.919	.908	.918	.868
Empathy ability	EmQue	353.280	2.371	.0539	.075	.925	.914	.925	.860
Sense of security	CPSS	629.536	2.031	.0796	.065	.920	.901	.919	.822

Common Method Variance

Because all data are self-reported and collected through the same questionnaire during the same period of time with cross-sectional research design and common method variance (CMB). Harman's single-factor test is one technique to identify common method variance. First, a Harman single-factor test of all the survey items identified multiple factors, the first (largest) of which accounted for only 23.3% of the total variance, it is less than the recommended threshold of 40%. Thus, there was no clear evidence of CMB.

Preliminary Analysis

Confirmatory Factor Analysis (CFA) values for the variables of parental styles, sense of security and empathy ability were calculated. Besides, the goodness of fit indices χ^2/df , RMSEA, SRMR, IFI, CFI, RFI and TLI were taken into consideration to test the goodness of fit of the model. Accordingly, all scales have a strong structure. RMSEA value and S-RMR value are lower than 0.08, the values of NFI, CFI, and GFI are all greater than 0.90, which are recommended for good model fit (Kline, 2015). Cronbach's Alpha coefficients values exceeded the minimum value $\alpha > 0.80$ (Hair Jr et al., 1998). After appropriate corrections, CFA results of three scales fit indices showed that the data fit well to the proposed factor structure (Table 2).

Table 3 The different levels distribution of parenting style, empathy ability, and sense of security

	Frequency	Percentage %
<i>Parenting style</i>		
Supportive/Engaged (S/E)	148	61.2
Mix parenting style	71	29.3
Hostile/Coercive (H/C)	23	9.5
<i>Empathy ability</i>		
Low level	68	28.1
Medium level	113	46.7
High level	61	25.2
<i>Sense of security</i>		
Low level	71	29.3
Medium level	112	46.3
High level	59	24.4

Table 4 Correlation statistic among study variables and covariates

	M	SD	S/E	H/C	EC	PA	AOF	EA	SA	SI	SPCS	STFS	SPS	ST	SS
S/E	4.24	1.052	1												
H/C	2.25	0.702	-.233**	1											
EC	2.21	0.856	.135*	-.165*	1										
PA	2.76	0.807	.270**	-.235**	.423**	1									
AOF	2.97	0.894	.265**	-.217**	.461**	.602**	1								
EA	2.65	0.695	.274**	-.252**	.772**	.820**	.852**	1							
SA	2.28	0.762	.188**	-.171**	.269**	.220**	.221**	.290**	1						
SI	2.22	0.797	.261**	-.326**	.171**	.223**	0.096	.198**	.547**	1					
SPCS	2.25	0.763	.166**	-.298**	0.119	.180**	.129*	.174**	.505**	.745**	1				
STFS	2.21	0.858	.186**	-.267**	.268**	.250**	.272**	.324**	.501**	.508**	.572**	1			
SPS	2.61	0.920	.303**	-.376**	.244**	.280**	.273**	.326**	.499**	.568**	.570**	.687**	1		
ST	2.74	1.166	.193**	-.231**	0.082	.186**	.199**	.191**	.323**	.383**	.368**	.409**	.639**	1	
SS	2.38	0.678	.281**	-.359**	.241**	.288**	.261**	.322**	.700**	.784**	.783**	.784**	.866**	.722**	1

M mean, SD standard deviation, S/E Supportive/Engaged, H/C Hostile/Coercive, EA empathy ability, SS sense of security, SA sense of ability, SI sense of independence, SPCS sense of parent-child security, STFS sense of teachers and friends security, SPS sense of public security, ST sense of timidity

* $p < 0.05$; ** $p < 0.01$

Procedure

The SPSS version 22.0 and AMOS 22.0 software were used to analyze the data of study. SPSS 22.0 was used to test the correlation analysis for descriptive and inferential statistics to answer research question 1 and 2. Firstly, mean (*M*) and standard deviation (*SD*) were used to describe the basic features of the data in a study. *p* values of simple linear regression were used to examine relationship of Parental Styles (Supportive/Engaged and Hostile/Coercive), Sense of Security (ability, independence, parent–child security, teachers and friends security, public security, and timidity) and Empathy Ability (emotion contagion, attention to others’ emotions and prosocial responses to others’ emotions). AMOS 22.0 was used to establish a Structural Equation Model (SEM) to answer research question 3.

Results

Descriptive Analysis

The different levels distribution of parenting style, empathy ability and sense of security are showed in Table 3. Each variable was set from three different levels with parenting styles setting from Supportive/Engaged (S/E), Mix parenting style and Hostile/Coercive (H/C). By comparing the total scores of parenting styles in the two dimensions of Supportive/Engaged (S/E) and Hostile/Coercive (H/C), it can be seen that 61.2% parents are more tend to Supportive/Engaged (S/E) style. In contrast, only 9.5% parents are more tend to Hostile/Coercive (H/C) style. Additionally, more than a quarter parents (29.3%) tend to mix parenting style.

In addition, empathy ability and sense of security were assigned to three category: low, medium, and high based on Kelley’s (1939) derivation that suggested

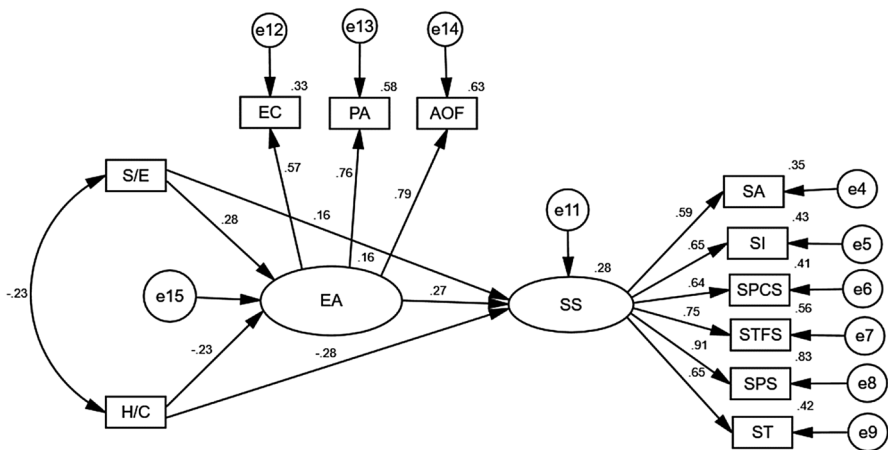


Fig. 1 SEM results regarding structural relationships among study variables with dimension

that the difference between the correct responses as a percentage of the upper 27% and lower 27% of the total group can tell us whether an item has discriminated the high scorers and low scorers on the test. In terms of empathy ability, 28.1% of children showing low empathy ability level with frequently 68 respondents, while 61 (25.2%) children showing high empathy ability, besides, 113 (46.7%) children showing medium level. Furthermore, the findings revealed that in terms of sense of security level, the results show that nearly 71 (29.3%) of respondents at the low sense of security level, equivalent 59 (24.4%) of children showing high sense of security level, the rest respondents are at the medium level reach at 46.3%.

Correlation Analysis

Correlations between study variables are shown in Table 4, which presents the mean, standard deviation and zero-order correlation analysis of the total and sub-dimensions of the three scales. Scale values of Supportive/Engaged (S/E) of Parental styles were at high level ($M=4.24$, $SD=1.052$), while the values of Hostile/Coercive (H/C) were ($M=2.25$, $SD=0.702$). And the values of sense of security (SS) were at medium level ($M=2.38$, $SD=0.678$), as well as the values of empathy ability were ($M=2.65$, $SD=0.695$). This indicates that the supportive/engaged generally had a positive attitude towards sense of security and empathy ability, and hostile/coercive generally had negative attitude towards sense of security and empathy ability.

When the relationships between the scales and each dimensions were examined, positive moderate relationships were found between supportive/engaged and empathy ability ($r=0.274$, $p<0.01$) as well as sense of security ($r=0.274$, $p<0.01$). Meanwhile, negative moderate relationships were found between hostile/coercive and empathy ability ($r=-0.252$, $p<0.01$) as well as sense of security ($r=-0.359$, $p<0.01$). In addition, a moderate positive relationship was found between empathy ability and sense of security ($r=0.322$, $p<0.01$). Thus, the research question 1 and 2 were answered.

Table 5 Bootstrapping results for total, direct, and indirect effects for mediation model

Type	Estimate	Coefficients		95% C.I.(a)		p
		S.E	Z	Lower	Upper	
<i>(H/C-EA-SS)</i>						
Total effects	-.370	.082	-4.51	-.531	-.206	.001
Direct effects	-.304	.087	-4.49	-.475	-.139	.001
Indirect effects	-.066	.038	-1.74	-.156	-.006	.024
<i>(S/E-EA-SS)</i>						
Total effects	.172	.058	2.97	.061	.288	.003
Direct effects	.118	.060	1.97	.003	.237	.045
Indirect effects	.054	.028	1.93	.008	.116	.020

Based on 2000 bootstrapped samples. CI confidence interval. All standardized indirect effects=95% CI does not include Zero

Structural Equal Model (SEM) Analysis

SEM analysis was used to answer the research question 3. Does empathy ability plays a mediate role in the relationship between two parenting styles “Supportive/Engaged and Hostile/Coercive” and Sense of Security?. In the present study, fit indices are suggested that the fit values of the tested model had a good fit ($\chi^2=82.757$, $df=38$ ($\chi^2/df=2.178$), $IFI=0.956$, $CFI=0.955$, $TLI=0.935$, $NFI=0.922$, $RMSEA=0.070$, $SRMR=0.0467$). Results from our mediation analysis indicated that the impact of both supportive/engaged and hostile/coercive indirectly influenced parental styles on empathy ability. The directions of the pathways all supported our research question 3 (Fig. 1). As shown in Fig. 1, Bootstrap-based on SEM was applied to test the mediating role of parental styles regarding the effect of empathy ability on sense of security.

Accordingly, we observed the direct, indirect and total effects among the variables of empathy ability, parental styles and sense of security (Table 5). The indirect effects of predictor (supportive/engaged of parental styles) variable were found to be effective upon the mediator (empathy ability) variable ($\beta=0.054$, $p<0.05$). Based on bootstrap 95% confidence interval for the indirect effect, 20,000 bootstrap samples were entirely above zero (0.008–0.116). Similarly, the indirect effects of hostile/coercive were ($\beta=-0.066$, $p<0.05$), value of 95% coefficients above zero (–0.156 to –0.006). Therefore, empathy ability explained about 31.3% of the change in relationship between supportive/engaged and sense of security, and explained about 17.8% of the change in relationship between hostile/coercive and sense of security. In this context, empathy ability is a partial mediator in the relationship between supportive/engaged and sense of security, as well as hostile/coercive and sense of security.

Discussion

This study examined the relations of two parenting styles (i.e., Supportive/Engaged and Hostile/Coercive) and sense of security of 3–6 years of age kindergarten children in a northeast city of China. More importantly, explored the mediating effect of parents empathy ability on the relationship between two parenting styles and sense of security among 3–6 years age kindergarten children. Using SEM, we tested whether the relation between two parent styles and sense of security was mediated by children’s empathy ability. We elaborate on each of these findings in the paragraphs that follow.

The result found that empathy ability acts as a mediator of the relationship between two parenting styles and sense of security in children. This finding was in line with research conducted by (Cornell & Frick, 2007; Schaffer et al., 2009), which highlighted that empathy ability is related to parenting styles and could influence children’s behaviors, further to influence the development of children’s sense of security. Based on several studies, (Panfile & Laible, 2012) concluded that children with higher in empathy were observed to behave more prosocially, the reason for the strong sense of security of children is because of their high level of empathy.

Empathy is the ability to feel and imagine the emotional experiences of others (McDonald & Messinger, 2011). The results of these studies show the importance of empathy ability in a child's life. Empathy is an ability, which is understanding the ability of the others, it is not a simple technique to fully understand the minds of others, but can express this understanding in a caring, warm, and respectful way (Kellett et al., 2006). At the same time, understanding and empathy are mutual. Only by giving empathy ability to others can we better appreciate and understand the empathy given by others. Children learn empathy from their surroundings, one of which is through the imparting of values given by parents to children, especially, the parenting style of parents is crucial to the development of children's empathy ability (Tong et al., 2012). On the one hand, children who reported more parental support tended to have higher empathy ability, at the same time, young children who show more empathy have been found more esense of security. On the other hand, good parent-child relationship can not only enhance the experience of self-worth and promote the individual to acquire more empathy, but also can stimulate positive psychological emotions and produce more sense of security (Boele et al., 2019).

The finding of this study also found that Supportive/Engaged and Hostile/Coercive of parenting style have direct effects on children's sense of security and have an indirect impact on young children's sense of security through empathy ability. That is, it was proposed that parents who has Supportive/Engaged style reported higher level of empathy ability and sense of security. Supportive/Engaged in parenting style is described by as a pattern, defined supportive/engaged parenting as "behavior that demonstrates the parent's acceptance of the child through affection, shared activities, emotional and instrumental support" (p. 535). This finding is in line with previous research conducted by Yorukoglu (2011) that child rearing styles of the parents' is crucial for the child's healthy growth and for being able to develop positive personalities and social behaviors. This study demonstrated that hostile/coercive parenting was associated with negative relationship with empathy ability and sense of security, which was consistent with the results of existing research (Nimkannon & Weinstein, 2014). Hostile/coercive parenting refers to behaviors that manifest a negative affect or indifference toward the child and may include the use of threat, coercion, or physical punishment to affect the child's behavior. This result can be explained from two perspectives: One is that sense of security can promote the development of children's cognitive abilities. Verification with previous studies, in the research on the influencing factors of children's sense of security, parent-child relationship, peer acceptance, self-esteem and many other factors are significantly positively correlated with sense of security. This shows that good parent-child relationship and harmonious family performance are conducive to stimulating children's positive mental state, improving their social adaptability, making it easier to obtain a sense of security and showing a higher level of security (Denham, 2007). Parents help children to develop a sense of security, which are especially important for parents of preschool children because children at this age are gaining a basic sense of trust in themselves and in the significant people in their lives. This sense of trust lays the foundation for learning, social skills, adaptability and emotional development. Secure children also maintain and strengthen their attachment to their parents. The establishment of sense of security means that parents can carefully take care and love for children,

meet the needs of children's physiology, and provide the psychological support for children to actively explore the unknown world. Meanwhile, only kids feel sense of security from their parents that they feel safe, freedom to grow, test boundaries and explore, which can be help children to improve their cognitive level. In other word, children can actively and confidently explore the unknown world if parents create a good sense of security for children, thereby improving their cognitive ability (Meins, 2013). Another is the ecosystem theory believes that as the core of the micro-system family, the development of individual security will be affected by family factors, and the parent-child relationship is an important variable that affects children's sense of security. Among them, Supportive/Engaged style is conducive to stimulating the psychological tendency of children to have a sense of security (Rueger et al., 2011). The sense of security is inspired by the support and help of others. Therefore, children with higher Supportive/Engaged have a higher level of security. However, the Hostile/Coercive will lead to a lack affectionate contact and teaching between parents and children (Jia et al., 2014), which is not conducive to the generation of a sense of security. Future research can explore the influencing factor model of children's sense of security from the aspects of teacher-student relationship, peer relationship, etc. Then make causal inferences about children's sense of security, so as to provide theoretical support for promoting the positive development of children's sense of security.

Limitations and Future Directions

There are several limitations and recommendations in this study that must be noted.

First, data on empathy in children were only obtained through the parents' and some items from teacher's report. This type of report could be more valid and objective when combined using a multimethod approach, such as observation or multiple informants.

Second, the participants in the present study only consisted of 242 children from three public kindergarten in the one city of southeast China, and these findings may not be generalizable to all Chinese children. Future research may consider greater number of samples by expanding the research locations to increase the generalization of the research findings and understanding the influence of culture.

The last limitation is that the study is designed as a cross-sectional study, which has the standard limitations on drawing causal conclusions about the relationships between parenting styles and children's sense of security. The recommendation should focus on a longitudinal study to see the effects of parenting style over time on children's levels of empathy and security.

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