EFFECTS OF PARENTING STYLE ON NORMAL AND DYSFUNCTIONAL EMOTIONAL BEHAVIORS IN SMALL CHILDREN

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SUMMARY

Background: The age of 3-6 years is a key period of rapid emotional and behavioral development of children. Family cohesion, adaptation, and parenting style are related to the emotions and behaviors of children. This study aims to discuss the correlations between parenting style and emotional behaviors of children aged 3-6 years.

Subjects and methods: Children aged 3-6 years from kindergartens in Longting District, Kaifeng City, Henan Province, China were selected through cluster sampling method from February to July 2021. A total of 2058 children were collected. Investigation contents include general information of parents and children, emotional behaviors of children, and parenting style. The correlation between parenting style and emotional behaviors of children aged 3-6 years was analyzed using a logistic regression model.

Results: Among 2058 children, the detection rate of abnormal emotional behaviors is 18.37% (378/2058), which is 22.57% (237/1050) in boys and 13.99% (141/1008) in girls, indicating statistically significant differences (χ^2 =25.270, P<0.05). Boys exhibit significantly lower parent support/participation scores than girls (P<0.05), but significantly higher parent hostility/forcing scores (P<0.05). Children with abnormal emotional behaviors exhibit significantly lower parent support/participation scores than children without abnormal emotional behaviors (P<0.05), but significantly lower parent scores (P<0.05). The results of the logistic regression analysis show that parent support/participation is beneficial to the emotional and social development of children ages 3-6 years (P<0.05).

Conclusions: Parental support/participation is conducive to decreasing abnormal emotional behaviors and improving the emotional social development of children ages 3-6 years. However, parent hostility/force increases the risk of abnormal behaviors. Hence, improving the bad parenting style is conducive to promoting the healthy social development of emotions of children.

Key words: preschool - children - emotion - behavior - social development - parenting style

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INTRODUCTION

The age of 3-6 years is a key period for the rapid emotional and behavioral development of children. During this period, the early development of children includes rapid neuropsychological development and rapid physical growth. The rapid neuropsychological development is manifested mainly as the rapid improvement of independent athletic ability, significantly enhanced external environmental exploration ability, and rapid development of language cognition. They propose particular requirements on independent activities and begin to develop complicated emotions, such as embarrassment, pride, guilt, and shyness. Social abilities including emotional recognition, understanding and regulation, independence, communication, imitative learning, and adaptation develop rapidly. A study has demonstrated that the emotional social development of children during this period not only determines the current development level and quality of children but also has profound long-term effects on psychological health and social ability development in the late stage and even in the adult stage (Mehran et al. 2017).

With the continuous technological progress in the 21st century, great changes have taken place in the contents, structure, and tasks of children's behavioral and psychological development. As a result, relevant studies

on how to promote comprehensive development of children better, how to further understand social development, personality and cognitive development of children, and so on have been gaining increased interest. Many developed countries have shifted education keys from "intelligent education center" to "individual comprehensive development", especially those pertaining to the social development of children. Chinese people have gradually realized the comprehensive educational development of children. When learning knowledge from the textbook, more attention is given to the development of sociality, behavioral mode, and values (Li et al. 2020). Therefore, the social development problem of children has become a research hotspot in the field of children's education in China and foreign countries.

Nowadays, when parents pay more attention to the learning, intelligence development, and physical development of children, they may ignore their social development, which is an important link in growth. Social development is an important component for children to realize comprehensive development. From the perspective of education science, children should be helped to "learn to behave" than simple skill and knowledge teaching (Manacero & Nunes 2020). Social development during childhood is the key stage to perfect personality formation and is also the basis for the life-long development of people. The social development of children is the outcome of subjective and objective interaction under the influence of education and the environment. The role of family education and environment plays a significant role in the social development of children (Avdibegovic & Brkic 2020, Sylva et al. 2020). Specifically, different parenting styles may affect the social development of children to different extents. According to relevant studies, parenting style is related to peer interaction, self-concept, and other social development aspects of children to different extents (Udell 2020).

The initiation and development of emotional behavior problems of children are multi-etiological modes and are the collaborative outcome of multiple factors, such as biology, family, and society. Changes in living environment, the establishment of peer relations, adaptation process to a strange environment, and family environment can all have evident effects on the emotional and social-behavioral development of children (Liu et al. 2018). Family environmental factors present the closest relationship with the early growth and development of children. A study demonstrated that family cohesion and adaptation, family living environment, and parenting style affect the emotions and behaviors of children (Xu & Zhang 2018). A prospective cohort study from Scotland demonstrated that children who suffered corporal punishment by custodians before two years may double the risk of behavioral and emotional issues (Scott et al. 2014). Pace et al. (2019) demonstrated that despotic parenting style is related closely to emotional behaviors of children.

In addition, behavior problems of preschoolers are related to the social-economic level of pregnant women before the delivery, especially family income and educational background. A study based on the behavioral problem structural equation model indicated that parenting style is the primary influencing factor of children's behavioral issues (Jeon & Cha 2019), followed by the physical health of the mother during pregnancy, children's temperament, and educational background of parents successively. Another study also pointed out that the emotional-behavioral problems of preschoolers are attributed to biological and social-economic factors (e.g. exposed birth of children or risks in perinatal period) rather than parenting style (Westrupp et al. 2012).

Concerning understanding of the effects of parenting style on the social development of children, one study pointed out that the educational model of the mother can be divided into five types through clustering analysis, and include positive, achievement pressure, spoiling, strict, and extreme types (Mowrey 2020). Among them, the positive type shows optimal results. Another study pointed out that parenting style can be used to predict the self-esteem of teenagers to some extent (Schwarzer et al. 2021). According to a Sino-Chinese comparative study on characters of children and parent-child relationships (Rudolph et al. 2019), parenting styles include affirmation-negation or tolerance-strictness, which has important influence on the social development of children. The age of 3-6 years is a key period of physical and psychological growth and development of children. It is the preliminary stage of socialization of humans. In this period, parenting strategy and method have profound impacts on the growth of children. A rare clinical study on the relationship between emotional social development of children ages 3-6 years and parenting style has also been conducted. In this study, parenting style, emotional behaviors, and emotional social development of children ages 3-6 years in Longting District, Kaifeng, China were investigated. The relationship between the social development of children ages 3-6 years and parenting style was discussed thoroughly. Research conclusions provide reasonable and scientific theoretical guidance to family education of children ages 3-6 years.

SUBJECTS AND METHODS

Samples Selection

From February to July 2021, children ages 3-6 years from kindergartens in Longting District, Kaifeng, China were collected as research objects through the cluster sampling method. A total of 2166 questionnaires were sent and 2058 were collected, showing a recovery efficiency of 95.0%. Among them, there were 1050 boys (51.0%) and 1008 girls (49.0%). Concerning age, 432 research objects (21.0%) were 3 years old, 699 were 4 years old (34.0%), 726 were 5 years old (35.3%), and 201 were 6 years old (9.8%). All custodians were informed about the research and signed the Informed Consent.

Methods

Teachers of classes were invited as field investigators to send questionnaires to parents and collect general information, as well as information on the emotion and behavior of children and parenting styles. Before filling in the questionnaire, the objective of the survey was explained to the investigators, who mastered specific standards of contents and unified investigation methods. They explained the objective and significance of the survey to parents during the investigation and briefly introduced the process of questionnaire filling and followed the principle of volunteering and informed in questionnaire filling. After questionnaires were sent, they were collected and checked in a timely manner. Staffs from the Health Department of Children were chosen as quality controllers responsible for checking the investigation scale and supplementing missing or doubted information on phones. During data input, questionnaires with obvious logic mistakes or missing information were deleted.

Health Development Survey of Preschoolers

General information included the gender, age, whether the child was an only child, feeding mode, delivery mode, health condition at birth, exposure to passive smoking of children, age, education and health conditions of parents and family economic level were collected through the questionnaire on *Health Development Survey of Preschoolers*.

Strength and Difficulty Questionnaire (SDQ)

Emotion and behaviors of children: Strength and Difficulty Questionnaire (SDQ) (Dickey & Blumberg 2004) was used for the investigation. The questionnaire evaluates the emotional behaviors of children from the perspective of parents and has 25 items, including emotional factors (e.g., somatic discomfort and nervousness in a new environment), hyperactivity factors (e.g. hyperactivity and inattention), behavioral factors (e.g., losing temper, quarrelsome or bullying behaviors), peer factors (e.g., loneliness and popular among children) and prosocial factors (e.g., considerations for others and willingness to help others). Each item was scored in three grades from 0 (disagree) to 2 (completely agree). The score sum of the first four factors is the total difficulty score in SDQ and the higher value indicates the higher degree of objective difficulties. Scores of 0-13, 14-16, and 17-40 were defined as "normal", "suspicious", and "abnormal", respectively. Prosocial factors are strength factors, and the higher scores indicate better prosocial ability. The total difficulty score and any anomaly in prosocial factors are determined as conduct disorders. The testretest reliability of SDQ is 0.72 and the test-retest reliability of multi-factors is 0.43-0.79. The Cronbach α of SDQ is 0.78.

Parent Behavior Inventory (PBI)

Parenting style: *Parent Behavior Inventory* (PBI) (Tie et al. 2018) was applied to investigate parenting style. The questionnaire contains two dimensions of support/participation and hostility/force, and each has 10 items. According to the frequency of occurrence in daily life, each question was scored in six grades, including Never, Occasionally, Sometimes, Moderate, Often, and Always. The Likert 6 scoring method was applied and 0-5 scores were applied. The test-retest validity of support/participation and hostility/force is 0.96/0.99. The total Cronbach α of the questionnaire is 0.67 and Cronbach α of support/participation and hostility/force are 0.81 and 0.65, respectively.

Emotional and Social Development of Children Ages 3-6 years in China

Emotion social development assessment. The scale of *Emotional and Social Development of Children Ages 3-6 years in China* (Wang et al. 2009) was applied for emotion social assessment of children ages 3-6 years from four dimensions, including operation ability (e.g. attention, empathy, and compliance), imbalance (e.g. negative emotion and sleeping), internalization (e.g. anxiety and depression/cowering), and externalization (e.g. aggressivity/opposability and activity/impulsiveness). First, the original score of each dimension was calculated and transformed into T scores. The positivity of ability dimension is smaller than 37 scores, and the positivity of imbalance, internalization, and externalization is higher than 63 scores.

Statistical analysis

Data analysis was carried out by SPSS 22.0. Measuring data that observe the normal distribution is described as ($\bar{x} \pm s$, scores) and compared by *t*-test of two independent samples. Enumeration data were described in cases (%) and compared in χ^2 -test. The emotional social development of children was used as the dependent variable and parenting style was used as the independent variable for multi-factor logistic regression analysis. *P*<0.05 indicates that differences have statistical significance.

RESULTS

Detection rates of emotional and behavioral problems of children

Among 2058 children, the detection rate of abnormal emotional behaviors is 18.37% (378/2058); 22.57% (237/1050) in boys, and 13.99% (141/1008) in girls, showing statistically significant differences (c2=25.270, P<0.05). Among respondents, 182 children (8.84%) with abnormal emotional symptoms, 209 children (10.16%) with misbehaviors, 329 (15.99%) hyperactivity and inattention, 341 children (16.57%) with poor peer relations, 255 children (12.39%) with prosocial behaviors and 215 children (10.45%) with SDQ difficulties were observed. Results are shown in Table 1.

Parenting style

Among 2058 respondents, the father's support/participation score is (34.41 ± 9.08) and the father's hostility/ forcing score is (17.91 ± 5.87) . The mother's support/ participation score is (38.44 ± 8.26) and the mother's hostility/forcing score is (18.22 ± 7.11) . Concerning gender differences, the parent support/participation scores of boys are significantly lower than those of children (P<0.05), but the parent hostility/forcing scores are significantly higher (P<0.05). Results are shown in Table 2.

Analysis of variance (ANOVA) of influencing factors of emotional behaviors of children ages 3-6 years

Statistically significant differences in parenting style scores between children with and without abnormal emotional behaviors (P<0.05) were observed. Results are shown in Table 3. The ANOVA shows that gender, age, and health condition at birth, exposure to passive smoking, education background of parents, and family income level can influence the emotional behaviors of children (P<0.05).

Effects of parenting style on emotion social development of children ages 3-6 years

Four dimensions of emotional social development of children were used as dependent variables (1 = yes;

0 = no), while father's support/participation, father's hostility/forcing, mother's support/participation, and mother's hostility/forcing in the parenting style were used as independent variables. A multi-factor logistic regression analysis was carried out to determine the

influences on the emotional social development of children ages 3-6 years. Results showed that parent support/participation is beneficial for the emotional social development of children ages 3-6 years (P<0.05). Results are shown in Table 4.

Table 1. Con	mparison of d	etection rates of	of abnormal emot	ions and behaviors	s in boys and g	irls ages 3-6 ye	ars
Gender	Quantity	Emotional symptoms	Misbehaviors	Hyperactivity and inattention	Poor peer relations	Prosocial behaviors	SDQ difficulties
Boys	1050	88(8.38)	118(11.24)	201(19.14)	218(20.76)	148(14.10)	117(11.14)
Girls	1008	94(9.33)	91(8.53)	128(12.70)	123(12.20)	107(10.62)	98(8.13)
χ^2 value		0.569	4.218	15.903	27.256	5.738	5.327
P-value		0.451	0.040	< 0.001	< 0.001	0.019	0.021

Table 2. Co	omparison of par	enting style scores betwee	en boys' and girls' a	ges 3-6 years ($\overline{x} \pm s$, scores	s)
Group	Quantity	Father's support/participation	Father's hostility/force	Mother's support/participation	Mother's hostility/force
Boys	1050	33 97+9 12	18 42+5 79	37 97+8 45	18 57+7 23

Boys	1050	33.9/±9.12	18.42±5.79	37.97±8.45	$18.5/\pm/.23$
Girls	1008	34.86 ± 8.96	17.38 ± 5.96	38.92±8.12	17.86 ± 6.89
t value		2.232	4.015	2.599	2.279
<i>P</i> -value		0.026	< 0.001	0.009	0.023

Table 3.	Comparison	of parenting	style	scores	between	children	with	and	without	abnormal	emotional	behavior
$(\overline{\mathbf{x}} \pm \mathbf{s}, \mathbf{sco})$	ores)											

Groups		Quantity	Father's support/participation	Father's hostility/force	Mother's support/participation	Mother's hostility/force
With emotional l	abnormal behaviors	378	32.68±9.34	18.92±6.35	35.12±8.92	19.37±7.45
Without emotional l	abnormal behaviors	1680	34.80±8.76	17.68±5.81	39.19±8.26	17.96±6.98
t-value			4.199	3.684	8.527	3.504
P-value			< 0.001	< 0.001	< 0.001	< 0.001

Table 4. Influences of parenting style on emotion social development of children ages 3-6 years

Factors Relevant variables	Partial regression coefficient	Standard deviation	Wald	Р	OR
Externalization					
Father's support/participation	-0.025	0.010	11.215	< 0.001	0.862
Father's hostility/force	0.046	0.005	20.136	< 0.001	1.012
Mother's support/participation	-0.025	0.009	7.842	< 0.001	1.120
Mother's hostility/force	0.034	0.015	11.451	< 0.001	1.025
Internalization					
Father's support/participation	-0.035	0.009	7.562	0.003	0.936
Father's hostility/force	0.042	0.011	18.653	< 0.001	1.012
Mother's support/participation	-0.032	0.012	38.745	< 0.001	1.026
Mother's hostility/force	0.075	0.019	35.269	< 0.001	0.894
Imbalance					
Father's support/participation	-0.045	0.049	32.159	< 0.001	0.987
Father's hostility/force	0.892	0.054	51.267	< 0.001	0.759
Mother's support/participation	-0.075	0.013	17.865	< 0.001	0.695
Mother's hostility/force	0.038	0.012	16.259	< 0.001	0.754
Ability					
Father's support/participation	-0.041	0.005	15.362	< 0.001	0.869
Father's hostility/force	0.069	0.014	30.269	< 0.001	0.965
Mother's support/participation	-0.029	0.012	21.265	< 0.001	0.568
Mother's hostility/force	0.164	0.029	19.863	< 0.001	0.796

DISCUSSION

Detection rates of abnormal emotional symptoms, misbehaviors, hyperactivity and inattention, poor peer relations, and SDQ difficulties of children ages 3-6 years are 8.84%, 10.16%, 15.99%, 16.57%, and 10.45%, respectively. The detection rate of SDO difficulties is lower than previous studies but is higher than the reported value of Deng et al. (2019). In this study, the detection rate of abnormal prosocial behaviors is 11.15%, which is lower than the report in Shenzhen, China, but is higher than those in Shanghai, China (Zeng et al. 2019) and Anhui, China (Liu et al. 2020). Compared with girls, boys show relatively higher detection rates of abnormal emotional behaviors except for emotional symptoms, which is consistent with the conclusion of Han et al. (2018). The finding might be related to the special biological characteristics of boys. Boys have a high testosterone hormone index, and can easily develop impulsiveness once they are irritated. Hence, they tend to make aggressive and destructive behaviors, hyperactivity, and are easy to have conflicts during peer interactions. Compared with boys, girls are relatively well-behaved and compliant and have advantages in empathic ability and peer relation handling. Moreover, the above difference might be related to family environment and parenting style. Many parents adopt a relatively conservative parenting style to girls and advocate quiet characteristics rather than quarrels and fights. However, they are more tolerant and even connive sometimes and have destructive or attacking behaviors (e.g. impulsion and beating) of boys. The attitudes of parents strengthen the externalization behaviors of boys, thereby causing them to develop abnormal emotional behaviors more easily. Wong and Yeung (2019) pointed out that the emotional social development of children has gender differences, and individualized intervention methods shall be formed following the emotional and social development characteristics of boys and girls. In this study, the total detection rate of abnormal emotional symptoms of children ages 3-6 years is 18.37%, which is close to previous studies (Tan et al. 2020, Yang & Williams 2021). This finding reflects that preschoolers generally have emotional behavior problems should be of concern and effective intervention should be done to promote the healthy social development of emotions of children.

Table 2 that boys show significantly lower total scores in father's support/participation and mother's support/ participation than girls, but significantly higher father's hostility/forcing scores and mother's hostility/forcing scores. This is consistent with Wang et al. (2016). This might be because, in China's tradetional culture, boys are often given more responsibilities and parents have stricter requirements and higher expectations on boys than on girls. In contrast, parents show more understanding and warmth towards girls. These factors lead to gender differences in parenting styles. parenting style scores between children with and without abnormal emotional behaviors. Compared with children without abnormal emotional behaviors, children with abnormal emotional behaviors had lower parent support/participation scores, but higher parent hostility/force scores. The results agree with the conclusions of Setiyowati et al. (2019), which indicate that parenting style is related to the emotional behavior development of children. Fuchs et al. (2016) demonstrated that the earth mother-infant relationship can be used to predict emotional behavior problems of children and it is independent of the negative effects of a mother's psychological health issues on behaviors of children. A study has pointed out that physical punishment by custodians can increase the risks of children's behavioral and emotional problems, while emotional support can lower the total scores in SDQ difficulties and risks of abnormal prosocial behaviors (Laletas et al. 2020). To sum up, parenting style has vital influence on the emotional behaviors of children, also extending into their adulthood (Marcinko et al. 2020). Hence, parents should strengthen rational education concepts and improve bad education mode to promote the healthy social development of emotions of children. Education affects children in an organized, targeted, and planned way and its influences on individuals are conscious and special. As the first agent of social and cultural education to children, parents assume not only the responsibility of all-around training but also an example for social imitation of children during relevant education processes. The logistic regression analysis in Table 4 shows that bad parenting styles can have different influences on behaviors, spirits, and psychology of children. Parent hostility/force has negative effects on the emotional social development of children, whereas parent support/participation facilitates emotional social development. This finding agrees with relevant research results (Pejovic-Milovancevic et al. 2018). Moreover, children have more difficulty adapting to the environment or developing more negative emotions, such as loneliness if parents are hostile in more ways. Accordingly, the selfacceptance of children is lower and children develop negative emotions, such as helplessness and selfabasement, more easily.

Table 3 shows statistically significant differences in

CONCLUSION

In parenting style, parental support/participation and parental hostility/force are related to independent emotional behaviors of children ages 3-6 years. Parental support/participation is conducive to decreasing the occurrence of abnormal emotional behaviors among children ages 3-6 years and improving their emotional social development. However, parent hostility/force increases the risk of abnormal behaviors. Therefore, improving parenting style should be used as an intervention to promote the emotional and social development of children. Parents should avoid force and indifference during education as much as possible. Instead, they should increase care, support, and participation to facilitate the healthy social development of emotions of children.

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