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The Relationship among Chinese Adolescents' Parental Involvement, Core Self-Evaluation and School Adaptation

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ABSTRACT

The present study discusses the relationship among Chinese adolescents' parental involvement, core self-evaluation, and school adaptation. The Parental Involvement Behavior Questionnaire, Core Self-Evaluations Scale (CSES), and the School Adaptation Inventory were used to survey 1258 Chinese middle school students. The results showed that adolescents' school adaptation was significantly positively correlated with parental involvement and core self-evaluation. Furthermore, parental involvement and core self-evaluation were positively correlated. Mediation analysis found that core self-evaluation had partially mediated the relationship between adolescents' parental involvement and school adaption. Parental involvement could directly affect adolescents' school adaptation and indirectly affect school adaptation through the mediating effect of core self-evaluation. The present study results suggested that parents and educators could improve adolescents' school adaptation by increasing parental involvement and enhancing the adolescents' core self-evaluation.

KEYWORDS

Parental involvement; core self-evaluation; school adaptation; Chinese adolescents

1 Introduction

Adolescence is the transitional phase between childhood and adulthood. At this stage, individuals would experience tremendous mental and physical changes, while facing challenges brought about by changes in the social and academic environments. Therefore, adolescents are more sensitive to changes in the environment and are prone to adaptation problems. Adolescents spend the majority of their time at schools, which are the most important places for their socialization. Adaptation to school is the basis for their healthy development, in which various aspects of abilities are involved. Perry et al. [1] proposed that, adapting to the school environment and meeting the expectations and requirements of school education mainly required academic, social, and behavioral abilities. In terms of academic performance, students are expected to have the metacognitive skills for learning; in terms of social skills, students are supposed to establish a harmonious relationship with their peers and teachers; and in terms of behavior,



students' ability of emotional regulation is emphasized. For adolescents, school adaptation has threefold requirements: learning adaptability, stress-handling, and interpersonal adaptability [2]. School adaptation plays an important role in the adolescents' mental development. For example, longitudinal studies have shown that school adaptation could significantly boost students' academic performance through students' academic self-concepts [3], while other studies revealed that the level of school adaptation was negatively correlated with the internal and external problem behaviours [4,5].

Related factors of school adaptation have been the focus of previous studies, in which researchers have found that self-efficacy and mental resilience were positively correlated with adolescents' school adaptation [6]. Cognitive reappraisal in emotion regulation strategies has a positive effect on school adaptation, while depression has a negative effect on school adaptation [7]. Adolescents' school adaptation is also related to family factors. For instance, the frequency of parent-child interaction and parental warmth could positively predict school adaptation [8], whereas family instability has a significant positive correlation with students' school adaptation [9]. As an important family-related factor, parental involvement refers to the involvement of parental engagement, accessibility, and responsibility during parenting [10,11]. Engagement refers to the direct interaction between parents and children in forms of care, play and leisure; accessibility refers to the presence of parents when children need help; responsibility refers to the care and resources that parents provide to children. Parental involvement is the core of parenting, which is related to adolescents' school adaptation. Adolescents who perceive a higher level of parental involvement would be more motivated to study [12] and have a more positive attitude towards school [13]. At the same time, Parental involvement is positively correlated with children's cognitive development and social-emotional development, while being negatively correlated with problem behaviors such as juvenile delinquency [14,15].

Besides parental involvement, another variable closely related to students' school adaption is core selfevaluation(CSE). CSE is an individual's basic evaluation of their own abilities and values [16]. It has a broad structure that encompasses four features: self-esteem, locus of control, general self-efficacy and neuroticism [17]. CSE has been considered to have an important influence on individual adaptation. Researchers have believed that core self-evaluation exert influences on individual mental adaptation and development mainly through motivation mechanism, schema mechanism, coping and benefit mechanism, etc. [18]. Motivation mechanism means that individuals with higher core self-evaluation would believe that they have the ability to resolve difficulties. They would also have a more positive evaluation of task feedback. Further, they are able to set appropriate goals and keep themselves away from being unmotivated for learning and work. Core self-evaluation also has an impact on processing external information through cognitive schemas. Individuals with a higher core self-evaluation build more positive self-schemes in mind, which affect their development and adaptation. Core self-evaluation also benefits individuals through the coping process and benefit process. High core self-evaluation not only helps individuals better cope with difficulties, but also allows individuals to better take the advantages in neutral or beneficial events. A wealth of studies have shown that CSE is related to individual adaptation. For example, core self-evaluation is negatively correlated with depression [19]; meta-analysis of longitudinal research have revealed that self-esteem in core self-evaluation could affect future social relationships [20]. Therefore, the core self-evaluation may be related adolescents' school adaption.

The way of parenting has an impact on adolescents' core self-evaluation. Studies have found that highlevel parental over-protection and low-level emotional warmth in parenting would reduce children's core self-evaluation [21]. There also have been research results showing that authoritative parenting of parents is positively correlated with adolescents' self-esteem and self-efficacy, while authoritarian parenting and neglectful parenting are correlated with adolescents' low self-esteem [22,23]. Parental involvement is the core of parenting. It indicates whether parents are willing to participate in the care of children, whether they are willing to be close to children, whether they care about children, and take parenting responsibilities. Adolescents often make a judgment on their abilities and values based on this. In this way, parental involvement is positively correlated with core self-evaluation such as children's self-efficacy and self-esteem [24,25]. In addition, core self-evaluation may have a mediating role between parental involvement and adolescents' mental development. For example, core self-evaluation has a mediating effect in the relationship between parenting style and self-consistency [21] and a mediating effect in the process of authoritative parenting style influencing the difficulty of adolescents' career decision-making [26]. Attachment theory proposes that there are differences in the characteristics and quality of parental care for their children. Parental coordination and appropriate responses would allow children to form safe attachments. These children would consider themselves worthy of care, capable of controlling the environment, and believe that others are trustworthy. They would feel sufficiently safe when exploring the environment, which would significantly impact children's neurocognitive and social development [27]. Therefore, parental involvement may affect school adaptation by changing adolescents' selfevaluation. Although previous studies have examined the relationships between parental involvement and adolescents' adaptation, core self-evaluation and adolescents' adaptation, respectively, they have not comprehensively investigated the relationships among parental involvement, core self-evaluation and adolescents' school adaptation, specifically the mediating role of parental involvement and school adaptation.

The purpose of the present study is to explore the relationship between Chinese adolescents' parental involvement and school adaption, and to test the mediating role of adolescents' core self-evaluation in the relationship between the two. Based on previous research on the relationship among parental involvement, core self-evaluation and mental adaptation, this study put forward the following hypotheses:

Hypothesis 1: Parental involvement is positively correlated with adolescents' core self-evaluation and school adaption.

Hypothesis 2: Adolescents' core self-evaluation is positively correlated with school adaption.

Hypothesis 3: Adolescents' core self-evaluation plays a mediating role in the relationship between parental involvement and school adaption.

2 Methods

2.1 Research Design and Data Collection

Two middle schools were selected from Henan Province for the present study through convenience sampling. These two schools have a collaborative research relationship with South-Central University for Nationalities, where the authors work. Participants were selected based on classes. Twenty-four classes in 6 grades from two middle schools were surveyed.

1273 adolescents participated in the questionnaire survey, and 1258 valid questionnaires were returned. Among them, 702 were male (55.8%), 556 were female (44.2%); 868 were from a rural area (69%), 390 were from urban area (31%); 703 were junior high school students (55.9%), and 555 were senior high school students (44.1%). The subjects' ages ranged from 12–17 years old (M = 14.34 years, SD = 1.32). The researchers trained twelve data collectors to inform the participants about the purpose of the research, and distribute questionnaires in the classroom. All subjects were told that they had the freedom to withdraw from the study at any time. After filling out the consent form, the students were asked to fill out the questionnaires anonymously, which were used to measure parental involvement, core self-evaluation and school adaptation. It took about 10–15 min to complete the questionnaires.

2.2 Variables and Measurement

2.2.1 Parental Involvement

In this study, the Parental Involvement Behavior Questionnaire was used to measure parental involvement [28]. The questionnaire looked into four dimensions from the perspective of father and

mother, respectively: emotional leisure, rule teaching, academic support, and life care, each with 22 items, such as "Dad supervises me doing my homework". All items were scored on a 5-point scale from 0 (never) to 4 (always). The higher the score, the greater the parental involvement. The Cronbach's α coefficient of the questionnaire in the present study was 0.846.

2.2.2 CSE

The Core Self-Evaluations Scale (CSES) was used to measure the primary evaluation of adolescents on themselves [29]. The scale had 12 items, such as "I determine what will happen in my life". 5-Point Likert Scale was used for scoring, ranging from 1 ("completely disagree") to 5 ("completely agree"). The higher the score, the more positive the core self-evaluation. The Chinese version of CSES had 8 items, which had good reliability and validity [30]. The Cronbach's α coefficient of the scale in the present study was 0.786.

2.2.3 School Adaptation

The School Adaptation Inventory, which includes five dimensions—academic adaptation, teacherstudent relationship, conventional adaptation, school attitude and peer relationship—was adopted to measure school adaption [31]. There were 27 items in the questionnaire, such as "I am often absentminded while studying". Each question used a 5-point rating scale from 1 (completely disagree) to 5 (completely agree). The higher the score, the better the middle school students adapt to school. In this study, the Cronbach's α coefficient of this scale was 0.90, which suggested good reliability.

2.3 Data Analysis

The Harman single factor method was used to test whether there is a common method bias. Exploratory factor analysis of all the items in each questionnaire in the research was conducted by using SPSS23.0. The results showed that 17 factors had characteristic root values greater than 1, and the variance explained by the first common factor was only 17.95%, which was less than 40%. Therefore, there was no significant standard method bias in this study.

SPSS23.0 was also used to perform other statistical analysis. First, the independent sample t-test was carried out to test whether the three dependent variables in the present study, namely parental involvement, core self-evaluation, and school adaptation, would show differences in gender, age, and domicile location. Secondly, Pearson correlation analysis was carried out to investigate the relationships among parental involvement, core self-evaluation and school adaption. Finally, the SPSS bootstrap macro program developed by Preacher and Hayes was used to test the mediating effect of core self-evaluation [32].

3 Results

3.1 Differences in Parental Involvement, Core Self-Evaluation, and School Adaptation of Different Types of Adolescents

The differences in parental involvement, core self-evaluation and school adaptation of different types of adolescents were analyzed. The results are shown in Tables 1–3. Adolescents of different genders showed significant differences in parental involvement, core self-evaluation, and school adaptation. Male adolescents had higher core self-evaluation scores than their female counterparts, while the latter reported a higher parental involvement and school adaptation level. There was no significant difference between rural and urban adolescents in core self-evaluation and school adaptation. However, there was a significant difference in their parental involvement in that urban adolescents had higher scores. There was no significant difference in parental involvement and core self-evaluation reported by adolescents from different age groups, but they had significant differences in school adaptation. The level of school adaptation of junior high school students was significantly higher than that of high school students.

| Gender | Parental involvement | CSE | School adaption |
|--------|----------------------|----------------|--------------------|
| Male | 77.51 ± 29.70 | 16.53 ± 4.59 | 98.34 ± 17.28 |
| Female | 81.56 ± 29.09 | 14.89 ± 4.61 | 102.23 ± 16.03 |
| t | -2.40* | 6.27** | -4.11** |

Table 1: Differences independent variables in adolescents of different gender groups

Note: **p* < 0.05; ***p* < 0.01.

Table 2: Differences independent variables in adolescents from different locations

| Location of domicile | Parental involvement | CSE | School adaption |
|----------------------|----------------------|----------------|-------------------|
| Rural adolescents | 77.14 ± 29.16 | 15.77 ± 4.54 | 100.28 ± 16.56 |
| Urban adolescents | 84.15 ± 29.71 | 15.89 ± 4.96 | 99.56 ± 17.48 |
| t | -3.84** | -0.39 | 0.69 |

Note: p < 0.05; p < 0.01.

Table 3: Differences independent variables in adolescents from different age groups

| Age group | Parental involvement | CSE | School adaption |
|-------------|----------------------|----------------|--------------------|
| Junior high | 79.54 ± 29.73 | 15.83 ± 4.46 | 101.16 ± 16.98 |
| Senior high | 78.99 ± 29.20 | 15.78 ± 4.93 | 98.64 ± 16.58 |
| t | 0.32 | 0.21 | 2.62** |

Note: p < 0.05; p < 0.01.

3.2 Correlation of Variables

Table 4 shows the correlation coefficients of adolescents' parental involvement, core self-evaluation and school adaptation. Correlation analysis results showed that parental involvement was significantly positively correlated with adolescents' core self-evaluation and school adaptation, suggesting that the more parental involvement, the more positive the adolescent's core self-evaluation and the higher the level of school adaptation. In addition, the adolescents' core self-evaluation was significantly positively correlated with school adaptation, which meant that the more positive adolescents evaluate themselves, the higher the level of school adaptation. Therefore, Hypothesis 1 and 2 of the present study were supported.

 Table 4: Descriptive statistics and correlations of variables

| | М | SD | 1 | 2 | 3 |
|-------------------------|--------|-------|--------|--------|---|
| 1. Parental involvement | 79.30 | 29.49 | 1 | | |
| 2. CSE | 15.81 | 4.67 | 0.22** | 1 | |
| 3. School adaption | 100.05 | 16.85 | 0.29** | 0.43** | 1 |

Note: **p < 0.01.

3.3 The Mediating Role of Core Self-Evaluation in the Relationship between Parental Involvement and School Adaption

The Bootstrap method recommended by Preacher et al. [32] was used to test the mediating role of core self-evaluation in the relationship between parental involvement and school adaptation after controlling the effects of age, gender and location of domicile. In the Bootstrap method, random sampling with replacement is used to reconstruct the sample to obtain the parameter estimation and the 95% confidence interval of the indirect effect. If the confidence interval does not include 0, then it can be considered that the indirect effect is significant (p < 0.05).

Table 5 shows the results of testing the mediating effect of core self-evaluation. Bootstrap analysis results showed that the mediating effect of core self-evaluation (*ab* path) was significant (p < 0.05). The unstandardized mediating effect was 0.057, and the 95% confidence interval was [0.0422, 0.0731]. The total effect that could be explained by the mediating effect was $0.057 \div (0.057 + 0.107) = 34.76\%$. Therefore, the core self-evaluation was a mediating variable between parental involvement and school adaptation, corroborating Hypothesis 3.

| | β | В | SE | р | CIs for the indirect effect | |
|---|-------|-------|-------|-------|-----------------------------|--------|
| Path | | | | | Lower | Upper |
| Parental involvement – CSE (a path) | 0.237 | 0.038 | 0.004 | 0.000 | 0.0299 | 0.0473 |
| Core self-evaluation – school adaptation (b path) | 0.461 | 1.659 | 0.092 | 0.000 | 1.2853 | 1.6505 |
| Total effect (c path) | 0.286 | 0.163 | 0.016 | 0.000 | 0.1323 | 0.1940 |
| Direct effect (c' path) | 0.187 | 0.106 | 0.015 | 0.000 | 0.0775 | 0.1354 |
| Indirect effect (ab path) | | | | | 0.0418 | 0.0726 |

Table 5: Results of the test of a hypothesized mediational model

Confidence intervals not including zero indicate a statistically significant indirect effect at p < 0.01. All path coefficients of the mediation model are showed in Fig. 1.



Figure 1: Path coefficients of the mediation model

4 Discussion

Attachment theory proposes that active parenting behavior would allow children to form safe attachments. Such children would consider themselves worthy of care, capable of controlling the environment, and believe that others are trustworthy. They would feel sufficiently safe when exploring the environment and develop better social capabilities [27]. Although researchers have revealed that parental involvement is correlated with adolescents' positive self-concept [33], and also positively correlated with school attitudes, academic engagement and other aspects of school adaptation [13,34], the previous research has mainly been carried out in western settings. Further, the underlying mechanism of the connection between adolescents' parental involvement and school adaptation remains unclear. There are specific differences in parental involvement in different cultures [35]. Whether the relationship

between adolescents' parental involvement and school adaptation in western culture could be extended to Chinese adolescents is yet examined. The present study examined the relationship between adolescents' parental involvement and school adaption in the Chinese setting. Specifically, we examined the mediating role of adolescents' core self-evaluation in the relationship between the two.

The present study found that Chinese adolescents had significant gender differences in terms of parental involvement, core self-evaluation and school adaptation. Compared with male adolescents, female adolescents had greater parental involvement, more negative core self-evaluation, and a higher level of school adaption. Besides, rural and urban adolescents had significant differences in parental involvement. Compared with rural adolescents, urban adolescents reported greater parental involvement. These results were consistent with research on adolescents' self-concept and parental involvement in other countries [36,37]. There were significant differences in school adaptation among adolescents from different age groups. The level of school adaptation in junior high school students was higher than that of senior high school students. Based on the present results, educators should pay attention to developing the self-concept of female adolescents, leading parents to increase their involvement in the parenting of male adolescents and adolescents in rural areas, and attaching importance to male adolescents' school adaptation.

Consistent with the hypotheses in the present study, parental involvement was significantly positively correlated with adolescents' school adaption. The greater the parental involvement, the higher the level of adolescents' school adaptation, which was consistent with the results of previous studies [12]. The present study results suggested that parental involvement plays an essential role in adolescents' school adaptation. If parents could participate in their children's emotional leisure, rule teaching, academic support, and life care, adolescents would effectively deal with the school environment's challenges. They would also have better academic performance, have a more positive attitude towards school, form a good teacher-student relationship and peer relationship. According to ecosystem theory, family and school are the two microsystems of adolescent development, while parental involvement is the mesosystem, which consists of the interaction of the two microsystems of family and school [38]. Therefore, in the development of children, parental involvement bridges the family and school environment, which would impact the school adaptation [39]. Parents should be aware that adolescents' successful school adaption requires cooperation between parents and the school. Caregivers should attach importance to parental involvement and provide help to the adolescents in many aspects, including emotions, rules, study and life, which would enhance adolescents' school adaptation.

In addition, the study found that parental involvement was significantly positively correlated with the Chinese adolescents' CSE, which in turn was also positively correlated with school adaptation. This was consistent with previous studies on the relationship between active parenting and self-concept, as well as the relationship between self-concept and school adaptation [22,40]. Previous studies have found that adolescents' CSE was positively correlated with active parenting and that parental involvement as the core element of parenting behavior, could improve an individual's CSE. An individual's self-concept originates from adults' response to him/her, and parents influence children's self-evaluation and sense of self-worth [41]. Parents with high-level parental involvement would actively interact with their children, respond timely when their children need them, and work hard to take care of the children. Their children would be more likely to gain a sense of value and make a positive evaluation of themselves. Self-concept shapes individuals' behavioral patterns in that it affects individuals' emotional experience, the way of thinking, behavior, and relationships with others. Therefore, the positive self-concept is beneficial for adolescents in terms of having positive emotional experience in school life, establishing a good relationship with others, and demonstrating well-functioning behaviors, which would promote adolescents' school adaptation.

The present study has focused on testing the mediating effect of CSE between parental involvement and school adaption. Such effect indicated that the adolescents whose parents have greater parental involvement tend to have more positive self-evaluation, which could further improve the level of adolescents' school adaptation. This result corroborated the attachment theory, which proposes that parents' active parenting behaviors allow children to form safe attachments. Children with safe attachments tend to think that they are valuable and capable. They could also effectively interact with the environment. Therefore their adaptation ability would be enhanced [27]. When parents have more parental involvement, adolescents are more likely to perceive the parental love, and they are more likely to feel that they have the ability to control the environment, which is conducive to the formation of a positive core self-evaluation that allows them to deal with the challenges of school environment more effectively. Therefore, parental involvement directly affects adolescents' school adaptation and indirectly affects school adaptation by improving CSE. In addition to CSE, other factors, such as parent-child attachment, mental resilience, etc., may also mediate the relationship between parental involvement and school adaption. These possibilities could be examined in future studies.

The present study has several limitations. First of all, the data collection in this study was carried out through self-reporting by adolescents, which may affect the accuracy. Remarkably, there might be differences between the parental involvement and school adaptation reported by the teenagers and the actual situation. Future research should consider combining reports from parents to evaluate parental involvement and adolescents' school adaptation. Secondly, other variables related to parental involvement and school adaptation were not considered, and it was difficult to rule out the influence of confounding factors on the results. Previous studies have found that family income and socio-economic status positively affect parental involvement and child development. Parents with more family income and higher socioeconomic status have more parental involvement, and their children would be more school-ready in terms of skills and have better academic performance [42,43]. Therefore, the relationship between parental involvement and adolescents' school adaption might merely reflect the concurrent influence of family income, socio-economic status and other related factors on parental involvement and adolescents' school adaption might merely reflect the concurrent influence of family income, socio-economic status and other related factors on parental involvement and adolescents' school adaption. Finally, the data were collected from adolescents in the central province of China, which means the results need to be replicated in different regions of China.

Despite the limitations, the present study attempted to understand the relationship between parental involvement and adolescents' school adaptation within the framework of attachment theory and ecosystem theory, and established a theoretical model of the relationship between parental involvement, core self-evaluation, and school adaptation. The results confirmed the role of parental involvement in adolescents' school adaptation, and also explained the potential mechanism of CSE in the relationship between parental involvement and Chinese adolescents' school adaptation. The results of the present study provide parents and educational institutions with valuable suggestions to improve the adolescents' school adaption. Parents should be aware of the importance of parental involvement in the adolescents' mental development, and provide timely help and guidance in the development of adolescents' cognition, emotion and behavior. In addition, the government and educational institutions should evaluate the adolescents' parental involvement, provide timely guidance to families with insufficient parental involvement, and improve adolescents' CSE through intervention to reduce school adaptation problems. U.S. government agencies and research groups have registered parenting involvement projects, such as Families and Schools Together (FAST), Incredible Years, and Strengthening Families. These projects emphasize the cooperation between families, schools, and communities and aim to foster supportive family relationships, increase active parenting skills, promote proper parental supervision, and provide parents with helpful information on effective parenting [44].

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