The Relationship Between Parental Control and Adolescents' Future Orientation: A Structural Equation Modeling Approach

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Abstract. Parenting style plays a significant role in adolescents' development as well as their future orientation. More and more online and in person parent training programs have been developed in recent years. The current study aims to examine this relationship by using structural equation modeling. To explore the influence of parental control on adolescents' future orientation as well as its underlying mechanism, a total of 1446 students were recruited. The common method deviation was verified by Harman's single factor test. The correlation and descriptive statistics were analyzed via SPSS. The structural equation model was conducted to analyze the direct and indirect effects of parental control on adolescents' future orientation via Mplus. Confidence intervals of the mediation effects of core self-evaluation and dispositional optimism were computed using bootstrap. Results of structural equation modeling show that parental psychological control negatively affects adolescents' future orientation significantly. Core self-evaluation and dispositional optimism both plays a chain intermediary role between parental control and adolescents' future orientation. The structural equation model of current study tested the effects of parental control on adolescents' future orientation using empirical data, which further demonstrates the importance of family education. Parent education program would be benefited from incorporating factors of this model into their design.

Keywords: future orientation · parental psychological control · parental behavior control · SPSS and Mplus · structural equation modeling · chain mediated effect · bootstrap · family education

1 Introduction

After entering middle school, teenagers face the major test of life: high school entrance examination and college entrance examination. The deliberation and planning for the future has been conceptualized as future orientation, which is regarded as an important task of adolescent and an indicator of healthy development of adolescents [1]. Parental rearing has a significant impact on adolescents' development in general, and this relationship has been widely studied. Parental control is divided into behavioral control

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and psychological control, which enables researchers to conduct deep analysis of how parenting styles affect the development of children and adolescents. However, its relationship with future orientation has not been fully investigated, especially regarding the underlying mechanism. The current study aims to examine the direct impact of parental control on adolescents' future orientation and explore its indirect influence via the mediating factors of core self-evaluation and dispositional optimism using structural equation model (SEM). This is the first study using SEM to test the chain mediating effect of the indirect relationship. Through examining the underlying mechanism, it can expand the understanding of how parenting practice affects adolescents' future orientation as well as their mental well-being. It is valuable for designing effective online and offline parent education programs, and for improvement of adolescents' psychological development.

1.1 SEM, Future Orientation, and Parental Control

SEM is a statistical procedure of constructing a causal model among distinct variables [1]. It is a method used to test whether a hypothesized model fits the patterns of relationships among variables. The underlying mechanism of the relationship between parental control and future orientation were hypothesized based on previous empirical findings, which were discussed at below. Future orientation refers to how people look at their future from the aspects of expectations, goals, standards, concerns, plans and strategies. Future orientation can be reflected in the dimensions of motivation, cognition, emotion, and action [2]. Future orientation is a relatively stable personality trait, which has a significant impact on decision-making [3]. A previous study found that future orientation has a profound effect on adolescents' academic, career and mental health. Plus, it plays a protective role in the development of teenagers [4]. Parental rearing style is an important environmental factor for the development of future orientation in adolescents [5]. The influence of different parental rearing styles on future orientation has been discussed by researchers [2, 6, 7].

Parental control was initially regarded as one of the negative rearing styles. It was divided into psychological control and behavioral control [4]. Parental psychological control is defined as: parents achieve the purpose of controlling their children by guilt induction, personal attack, love withdrawal, express restriction, emotional neglect and other invasive means. It deprives children from the freedom to make decisions. It destroys children's self-system and makes children feel useless and guilty. It is related to internalized and externalized behavior problems, such as anxiety, panic, aggressive behavior, etc. [4]. In recent years, scholars began to pay attention to the negative relationship between parental psychological control and adolescents' positive qualities such as optimism [8]. It can be assumed that parental psychological control may also have a negative impact on adolescents' future orientation.

Parental behavior control is defined as: parent regulate children's behavior by clearly requirements and rules [9]. Teenagers who lack parental behavior control are not fully guided and supervised. Therefore, they are more likely to be exposed to danger, and are prone to demonstrate externalized problems, such as impulsivity and aggression [4]. Appropriate parental behavior control provides necessary parental supervision and guidance for children to abide by and internalize basic principles and social norms, which helps to prevent future crimes. However, excessive behavior control, such as punitive and

authoritative discipline requirements, is also positively related to aggression, insufficient emotional regulation, depression, and suicide attempts [10]. To avoid ambiguity, scholars distinguished excessive behavior control from behavior control and called the former strict control or strict discipline [11]. Therefore, parental behavior control, including awareness, expectation, supervision, etc., is still widely regarded as a positive rearing style, which can promote positive development and self-esteem in adolescents [12, 13]. However, a few studies also found that parental behavior control has no positive effect [14]. The controversial findings lead to an unspecified assumption regarding parental behavioral control in the SEM hypothesis.

1.2 SEM and the Potential Mediating Effects of Core Self-evaluation and Dispositional Optimism

The current study added core self-evaluation and dispositional optimism in the SEM, to further understand the indirect relationship between parental control and future orientation in adolescents. Assumptions of the model were made based on previous research as discussed below. Although the literature has made progress in clarifying the relationship between parental control and future orientation, research on the potential mechanism underlying this relationship is still limited [15]. Previous research showed that the intermediary effects of behavioral autonomy, locus of control and growth initiative between negative parental rearing style and teenagers' future orientation were found to be non-significant [6, 7, 16]. Some scholars have found that parental psychological control was comparatively orthogonal to the dimension of encouragement of independence. Parents may promote independence either in a psychological control style or in a non-control style [17]. Core self-evaluation is the basic self-evaluation of an individual's own ability and value. It is a common core construct based on the four core traits of self-esteem, neuroticism, locus of control, and generalized self-efficacy [18]. It is a relatively stable personality trait and belongs to a part of self-concept. The looking-glass self theory points out that children develop their self-concept through others' attitude response, expression, evaluation, and treatment. The self-concept plays a crucial role in processing incoming information and guiding behavior [19]. Burns indicates that self-concept determines teenagers' interpretation of their various experiences, expectations, and judgment on the possibility of prospective events. Studies have found that high-level self-evaluation is conducive to the development of future orientation [2]. Thus, core self-evaluation was assumed to mediate the relationship between parental control and future orientation.

Dispositional optimism refers to the overall expectation of positive results in the future, which is both an attributional style and a cognitive structure [20]. As a personality trait, dispositional optimism is influenced by both congenital and acquired factors and is considered to remain quite stable over time [21]. Teenagers reared by positive parenting have a more optimistic attitude towards the future and build a long-time span. When facing challenges, they also have higher self-evaluation and strong motivation, which make them more likely to form a positive future orientation [2]. Therefore, dispositional optimism is also a potential mediator in the relationship between parental control and future orientation in the SEM.

1.3 Current Study

By reviewing the literature, the SEM was constructed with a series of assumptions. Both direct and indirect effects of parental control on adolescents' future orientation were incorporated in the model. This model aims to examine two hypotheses: (1) parental psychological control negatively affects adolescents' future orientation. Due to the controversial finding summarized above, the influence of parental behavior control was not assumed. (2) Adolescents' core self-evaluation and dispositional optimism play a chain mediating role between the parental control and adolescents' future orientation. The current study aims to enrich the understanding of mechanisms underlying the relationship between parental control and future orientation in adolescents. This model can be applied to online and in person parent education trainings by effectively targeting the mediators. It also supports the development of prevention programs and online psychological activities for parents and adolescents.

2 Method

2.1 Participants

Cluster sampling was used to collect the offline questionnaires. 616 middle school students were recruited from a typical Beijing junior middle school. Using the class as the unit, the headteacher reads the measurement instructions and retrieves the questionnaire. Following recovery, the questionnaires with unreliable responses, such as missing the majority of questions, straight-line, and serpentine responses, were removed. With a response rate of 87.9 percent, 542 questionnaires were remained. The same set of questionnaires was sent to the WeChat class groups of three ordinary junior middle schools and two senior high schools in Chengdu in the form of an online survey, and a total of 1455 questionnaires were received. The offline questions were selected based on response time, leaving 1369 online questionnaires with a 94.08% online recovery rate. This survey included a total of 1911 online and offline samples. 465 invalid replies were screened out due to lack of personal information, continuous duplicate answers, logical errors of inverse questions, and failure to live with parents. 1446 valid answers were remained, with an effective rate of 75.66 percent. The samples ages ranging from 10 to 19 years ($M = 13.58$, $SD = 1.49$), with 706 boys (48.8%) and 740 girls (51.2%). 613 students were in Grade 7 (42.4%), and 427 students were in Grade 8 (29.5%). 141 students were in Grade 9 (9.8%), and 143 students were in Grade 10 (9.9%). Sixty students were in Grade 11 (4.1%), and sixty-two students were in Grade 12 (4.3%). There were 978 children without siblings (67.6%) and 468 children with siblings (32.4%). 423 students were from Beijing (29.25%), and 1024 students were from Chengdu (70.74%).

2.2 Measurement

2.2.1 Future Orientation Scale

Future orientation was assessed using the adolescent future orientation questionnaire compiled by Liu et al. [22]. The questionnaire has 31 questions, including three dimensions: future cognition, future emotion, and future will action. It adopts a 5-point score

scale ranging from "1-completely inconsistent" to "5-completely consistent". High mean scores indicate an elevated level of one's future orientation. In this study, Cronbach's α value of the questionnaire is 0.874.

2.2.2 Parental Control Scale

Parental control was measured using a questionnaire compiled and verified by Shek et al. [9, 23]. Studies have shown that its Chinese version has good reliability and validity [24]. The questionnaire includes two subscales: parental behavioral control and parental psychological control. This study uses three dimensions: parents' understanding, requirements, and supervision of children's behavior, to measure behavior control, with 21 questions. Parental psychological control dimension measures the psychological control behavior of parents over their children with 10 questions. The questionnaire was divided into paternal sub-questionnaire and maternal sub-questionnaire, using a 5-point score scale ranging from "1-never like this" to "5-always like this". The higher the score, the higher the level of parental control is. In this study, Cronbach's α values of parental behavior control, parental psychological control, and total parental behavior control, are 0.939, 0.944, and 0.919 respectively.

2.2.3 Core Self-evaluation Scale

The Core Self-evaluation Scale compiled by Judge and revised by Du was adopted [25]. The scale contains only one dimension, including 10 questions. 5-Point Likert Scale was used for scoring, and it ranges from 1 ("completely disagree") to 5 ("completely agree"). The higher the total score, the higher the level of core self-evaluation. In this study, Cronbach's α coefficient of the scale is 0.905.

2.2.4 Dispositional Optimism Questionnaire

The dispositional optimism questionnaire revised by Fan and Shi was used [26]. The scale includes 10 questions, and 5-Point Likert Scale was used for scoring, ranging from 1 ("1-very inconsistent") to 5 ("5-very consistent"). The higher the total score, the higher the level of optimism disposition is. In this study, Cronbach's α coefficient is 0.826.

2.3 Procedure

With the consent of the school's teaching director, the headteacher, and the students themselves, cluster sampling was carried out in each class unit, and the questionnaire was distributed. Before the test, the headteacher read out the guidance of the questionnaire. The test lasted about 15 min, and then the headteacher took back the questionnaire. The answers of the questionnaires were input into computer and reviewed by the author. The online questionnaire was sent to the class group in WeChat after being approved by the school principal. The students voluntarily completed it independently on their mobile phones.

2.4 Data Analysis

After data consolidation, SPSS 26.0 was used to conduct descriptive analysis and correlation analysis. Mplus 7.4 was used to establish and test the SEM model that was constructed based on the hypotheses. Both direct and indirect relationships between parental control (psychological and behavior) and future orientation in adolescents were included in the model. Plus, bootstrap was used to compute the confidence intervals and to examine the mediating effects of core self-evaluation and dispositional optimism [27].

3 Results

3.1 Common Method Bias Test

Since all variables in this study were measured from adolescents' self-reports, to avoid common method bias, procedural control through anonymous responses was conducted. The Harman's single-factor test was used to test common method bias (CMB). The results show that 19 components with eigenvalues above 1 were obtained after factor analysis. The cumulative percentage of the eigenvalues explained by the first common factor is 21.953%, which is below the critical value of 40%. Therefore, the influence of CMB on the results of this study can be excluded.

3.2 Descriptive Statistics and Correlation

The test of demographic variables found no gender difference in future orientation ($t = 0.280$, $P = 0.78$). A significant difference in city was found for future orientation ($t = -10.973$, $P < 0.001$). Plus, the correlation between future orientation and age was also found significant ($r = -0.164$, $P < 0.001$). In the following analyses, age and city were both controlled. Correlation analysis showed that parental behavior control was positively correlated with core self-evaluation, dispositional optimism, and future orientation. Parental psychological control was negatively correlated with core self-evaluation, dispositional optimism, and future orientation. The core self-evaluation, optimism, and future orientation were all positively correlated with one another (Table 1).

3.3 SEM and Mediating Effect Test

The impact of parental control on future orientation was analyzed first. By controlling the influence of demographic variables, the structural model fits well ($\chi^2/df = 15.2$, $CFI = 0.93$, $TLI = 0.893$, $RMSEA = 0.099$, $SRMR = 0.063$). The results showed that parental behavior control positively predicted future orientation ($\beta = 0.500$, $p < 0.001$), and parental psychological control negatively predicted future orientation ($\beta = -0.361$, $p < 0.001$).

The mediation structural model was analysed by Mplus as shown in Fig. 1. By controlling the influence of demographic variables, the model fits well ($\chi^2/df = 19.12$, $CFI = 0.924$, $TLI = 0.88$, $RMSEA = 0.112$, $SRMR = 0.085$). Parental behaviour control positively predicted future orientation ($\beta = 0.158$, $p < 0.001$), core self-assessment ($\beta = 0.312$, $p < 0.001$), and dispositional optimism ($\beta = 0.093$, $p < 0.001$). Parental psychological control negatively predicted future orientation ($\beta = -0.061$, $p < 0.05$), dispositional optimism ($\beta = -0.101$, $p < 0.001$), and core self-evaluation ($\beta = -0.418$,

Table 1. Descriptive Statistics and Correlations for Primary Study Variables

		1	2	3	4	5
1	Parental Behavior control	1.00				
2	Parental Psychological control	−.08[b]	1.00			
3	Core Self-Evaluation	.32[b]	−.41[b]	1.00		
4	Dispositional Optimism	.33[b]	−.40[b]	.82[b]	1.00	
5	Future Orientation	.47[b]	−.35[b]	.72[b]	.70[b]	1.00
M		155.06	37.18	37.86	36.18	115.94
SD		25.16	14.92	8.11	7.21	20.21

[c] $p < 0.001$, [b] $p < 0.01$, [a] $p < 0.05$.

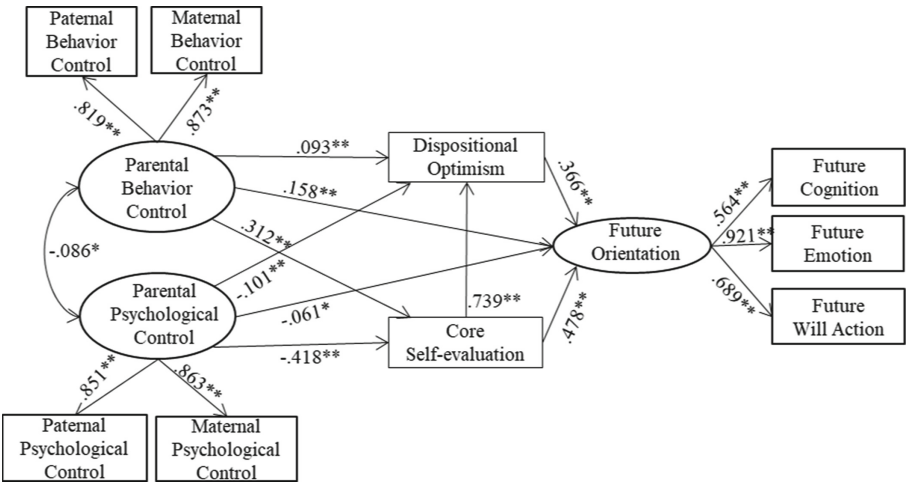

Fig. 1. The chain mediation effect model

$p < 0.001$). Core self-evaluation positively predicted future orientation ($\beta = 0.478$, $p < 0.001$), and dispositional optimism ($\beta = 0.739$, $p < 0.001$). Dispositional optimism positively predicted future orientation ($\beta = 0.366$, $p < 0.001$). All the paths in the model were significant.

The Bootstrap method was used to examine the mediating role of core self-evaluation and dispositional optimism in the relationship between parental control and future orientation, after controlling the effects of age and city. 2000 samples were taken for testing in our study. The total indirect effect value of the mediation model of parental behavior control was 0.082, and the 95% confidence interval did not include 0 (llCI = 0.067, ULCI = 0.098). The total indirect effect value of the mediation model of parental psychological control was −0.198, and the 95% confidence interval did not include 0 (llCI = −0.234, ULCI = −0.165). The result indicates that the chain mediation effect of core self-evaluation and dispositional optimism in the relationship between parental control and future orientation is significant.

The total standardized mediating effect value of the relationship between parental behavior control and future orientation is 0.268, accounting for 62.87% of the total standardized effect (0.426). The standardized residual direct effect value is 0.158, accounting for 37.13% of the standardized total effect value (0.426). The mediating effect is consisted of three indirect effects: Path 1, parental behavior control → core self-evaluation → indirect effects (0.149 standardized effect value), Path 2, parental behavior control → dispositional optimism → future orientation (0.034 standardized effect value), and Path 3, parental behavior control → core self-evaluation → dispositional optimism → future orientation (0.084 standardized effect value). The three indirect effects accounted for 35.04%, 8.00%, and 19.83% of the total effects, respectively. The 95% confidence intervals of the above indirect effects did not include 0, indicating that all the three indirect effects reached the significance level (Table 2).

Table 2. Direct and Indirect Effects and 95% Confidence Intervals for The Final Model

	Path	P	S.E.	95% Confidence intervals		STD P
				Lower 2.5%	Upper 2.5%	
Direct	B → F	0.048	0.009	0.032	0.068	0.158
Indirect	① B → C → F	0.046	0.006	0.036	0.058	0.149
	② B → D → F	0.011	0.002	0.006	0.015	0.034
	③ B → C → D → F	0.026	0.003	0.02	0.033	0.084
Total Indirect	B → F	0.082	0.008	0.067	0.098	0.268
Total Effect	B → F	0.130	0.013	0.105	0.156	0.426
Direct	P → F	−0.034	0.014	−0.063	−0.008	−0.061
Indirect	④ P → C → F	−0.113	0.013	−0.143	−0.09	−0.200
	⑤ P → D → F	−0.021	0.005	−0.033	−0.013	−0.037
	⑥ P → C → D → F	−0.064	0.008	−0.081	−0.05	−0.113
Total Indirect	P → F	−0.198	0.018	−0.234	−0.165	−0.350
Total Effect	P → F	−0.232	0.022	−0.275	−0.192	−0.411
Effect Comparison	①-②	0.035	0.006	0.025	0.049	0.115
	①-③	0.020	0.006	0.009	0.031	0.065
	②-③	−0.015	0.003	−0.023	−0.01	−0.050
	④-⑤	−0.092	0.014	−0.124	−0.067	−0.163
	④-⑥	−0.049	0.014	−0.076	−0.022	−0.087
	⑤-⑥	0.043	0.008	0.029	0.06	0.076

B parental behavior control; P parental psychological control; C core self-evaluation; D dispositional optimism; F future oriental.

The total standardized mediating effect value of the relationship between parental psychological control and future orientation is −0.35, accounting for 85.15% of the total standardized effect (−0.411). The standardized residual direct effect value is −0.061, accounting for 14.85% of the standardized total effect value (−0.411). The mediating effect is consisted of three indirect effects: Path 4, parental psychological control → core self-evaluation → indirect effects (−0.2 standardized effect value), Path 5, psychological control → dispositional optimism → future orientation (−0.037 standardized effect value), and Path 6, parental psychological control → core self-evaluation → dispositional optimism → future orientation (−0.113 standardized effect value). The three indirect effects accounted for 48.63%, 9.00%, and 27.52% of the total effects, respectively. The 95% confidence intervals of the above indirect effects did not include 0, indicating that all the three indirect effects reached the significance level. Finally, the indirect effects of different paths were compared in pairs to test the differences. The results show that the 95% confidence interval of each path difference did not contain 0, indicating the differences between paths were significant.

4 Discussion

Based on the previous research and the related theories, the current study examined the relationship between parental control and future orientation using a SEM approach. Plus, it also tested the intermediary role of core self-evaluation and dispositional optimism using bootstrap. The data showed that the higher the level of parents' psychological control is, the lower the levels of core self-evaluation, dispositional optimism and future orientation are. It also indicates that core self-evaluation and dispositional optimism play a chain intermediary role between parental control and adolescents' future orientation. Both hypotheses of the SEM were verified. Due to the inconsistencies in previous studies, no hypotheses were made about parental behavior control. The finding showed that the higher the level of parental behavior control is, the higher the levels of core self-evaluation, optimism, and future orientation are.

4.1 The Direct Relationship Between Parental Control and Future Orientation in the SEM

The first hypothesis of the SEM is that the parental psychological control negatively predicts adolescents' future orientation. The results of the current study support this hypothesis. Similar findings were shown in previous studies [15, 28]. Psychological control infringes on the opportunities for self-discovery and personality development in teenagers. It is difficult for them to distinguish themselves from their parents. They barely connect with their inner self and may encounter difficulties in making personal commitments. Exploring themselves and the possibility of the future is a necessary process for the development of adolescents' future orientation. Parents' psychological control just blocks this process and hinders the development of future orientation, as predicted by the SEM.

Due to the inconsistent results of previous studies, this study did not assume the relationship between parental behavior control and future orientation. The result showed that

behavior control positively predicts adolescents' future orientation, which is consistent with some previous studies [15, 28]. The lack of parental behavior control gives children excessive autonomy. Researchers have found that if parents fail to supply effective monitoring when supporting their children, their children may be unable to understand the appropriate rules and to acquire good behavior habits. The adolescents may easily feel lost, and do not have the ability of reasonable planning [7]. Parental supervision and guidance can help teenagers internalize social norms. The purpose of behavior control is to teach adolescents to understand mature reasoning and to make their own decisions eventually [4]. However, previous studies found that behavior control was not conducive to teenagers' self-cognition [14]. The difference may be caused by the distinct cultural backgrounds between the East and the West, as discussed in previous studies [9].

4.2 The Mediating Roles of Core Self-evaluation and Dispositional Optimism in the SEM

The results of SEM show that parental psychological control and behavior control affect future orientation through the mediation of core self-evaluation and dispositional optimism significantly, which is consistent with the second hypothesis. The results show that core self-evaluation has a significant mediating effect between parents' psychological control and future orientation. This is consistent with the conclusions of previous studies [15, 29, 30]. Various means of parental psychological control encroach on the self- development in children and adolescents, and make them feel guilty and helpless, which are related with low self-esteem and low self-efficacy [4]. According to the looking-glass self theory, children slowly internalize the information about themselves conveyed by their parents, so that they are in a state of low self-evaluation. This state impacts the development of self-awareness and self-cognition in adolescents negatively. Therefore, the adolescents cannot establish a stable self-identity, which is essential to their exploration of future [4].

Parental psychological control negatively affects future orientation through dispositional optimism. It is consistent with the existing relevant research results [8]. Parental psychological control is like an emotional abuse. Studies have found that childhood trauma, especially with childhood emotional abuse, is strongly associated with lower level of optimism and may also reduce the level of optimism [31]. It is supported by biological research results that a history of emotional abuse may change the neural network involved in predicting and evaluating future positive events [32]. Therefore, after the optimistic level was reduced, the recognition of the future would become more negative, which hinders the development of the future orientation, as predicted by SEM.

The significant mediating effect of core self-evaluation and dispositional optimism found in the current study is consistent with the conclusions of previous studies in the attachment research area as well [33]. The attachment theory points out that children who receive continuous care and support from primary caregivers will have positive beliefs about themselves. As they believe that they deserve the care, they are more likely to have a higher level of self-evaluation, a higher level of self-confidence, and be more optimistic [34]. The appropriate parental behavior control provides opportunities for positive parent-child interactions, such as parent-child communication and parental support, so that children can feel the attention and understanding from their parents.

When facing difficulties, parents' communication and guidance also make children feel that their parents are warm and supportive. It promotes children's motivation to explore the environment and their future [35].

The current study also found that core self-evaluation and dispositional optimism play a significant chain mediating role between parental control and adolescents' future orientation. This is consistent with the conclusions of previous studies [36]. According to Swann's self-verification theory, people with positive self-evaluation will set positive goals. They think they are likely to succeed, and actively make efforts in the process to verify their positive self-evaluation. People with negative self-evaluation tend to set negative goals. They think they are unlikely to succeed and are unwilling to make more efforts in the task to finally verify their negative self-evaluation [37]. Other researchers found that adolescents with a positive self-evaluation are more sensitive to positive stimuli in the environment. They have optimistic expectations for the future and are more persistent in action. Adolescents with negative self-evaluation are more sensitive to negative stimuli in the environment and holds negative cognition and emotion towards difficulties and challenges. They feel pessimistic about the future and reflect it in action [38]. A previous study also found that adolescents' self-evaluation affects optimism [39]. The crucial role of optimism in making future judgements has also been supported by previous studies [29, 39]. The influence of core self-evaluation and dispositional optimism on future orientation is a successive process, as predicted by the SEM.

5 Conclusions

The current study explored the relationship between parental control and future orientation in adolescents, as well as the influence mechanism, using SEM. It was the first time to find a significant intermediary path in the relationship between both negative and the positive parenting styles and adolescents' future orientation, which enriched the theoretical understanding of this relationship. Nevertheless, there are still some limitations to be noted in the interpretation of the results, which can be solved in future research. First, due to the cross-sectional nature of this study, it is impossible to infer causal effects in long-term. Second, as children and adolescents' perception and understanding of the parental behavior control are affected by cultural background, the results of this study should only be applied to adolescents in China. Whether other cultural groups are applicable needs further research.

The chain intermediary path of the SEM further explains the influence of parental control, as a distal factor, on adolescents' future orientation, as a proximal factor. It indicates that personality traits of adolescents can be mediators in this relationship. This model is valuable to online and in person interventions designed for adolescents. In practice, parent education programs and psychological intervention programs could be benefited from incorporating the mediators of this model to improve adolescents' psychological well-being and support them during the transition to adulthood.

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