Psychology Research and Behavior Management

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ORIGINAL RESEARCH

The Impact of Harsh Parental Discipline and Emotional Warmth on Adolescent Problem Behaviors

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Purpose: This study, grounded in Social Information Processing Theory, integrates emotional warmth and harsh discipline into a unified model to investigate their differential effects on adolescents' internalized and externalized problem behaviors, as well as to explore the potential divergences in the mediating role of inhibitory control.

Patients and Methods: Four hundred and twenty-eight adolescents completed validated scales of Egna Minnen av Barndoms Uppfostran (EMBU), Inhibitory Control and The Youth Self-Report (YSR), Data analysis was performed using SPSS 26.0 and Mplus7.4 to examine the relationship between harsh parental discipline, emotional warmth, adolescent inhibitory control, and internalized and externalized problem behaviors and the mediating effects.

Results: The present study revealed that (1) Harsh parental discipline negatively predicted both internalized and externalized problems in adolescents, while emotional warmth from fathers positively predicted internalized problem behaviors; (2) Inhibitory control acted as a mediator in the impact of harsh parental discipline on problem behaviors, while the mediating effect between paternal emotional warmth and internalization issues was not significant.

Conclusion: The impact of emotional warmth and harsh discipline on adolescent internalized and externalized problems varied. In families practicing a mixed parenting style, harsh discipline had a more significant effect on adolescents, primarily mediated through inhibitory control.

Keywords: harsh discipline, emotional warmth, inhibitory control, problem behaviors, adolescents

Introduction

Problem behaviors are critical indicators of adolescents' social adaptation and are generally classified into internalized and externalized problem behaviors.[1] Internalized problem behaviors refer to negative emotions experienced by individuals, such as depression and anxiety, while externalized problem behaviors mainly involve conduct-related actions, including aggression, disciplinary violations, and so forth.[2] These behaviors are closely related to individual growth, family happiness, and social stability. Existing research indicates a high prevalence of both internalized and externalized problem behaviors among adolescents.[3] A meta-analysis on Chinese students revealed that depression (28.0%) and anxiety (26.3%) are the primary internalized issues affecting high school students' mental health.[4] Similarly, recent studies show a significant prevalence of externalized problem behaviors in adolescence, with rates as high as 35.1%.[5] Therefore, exploring the influencing factors and mechanisms of adolescent problem behaviors is of great significance.[6,7]

Parenting styles refer to the relatively stable emotional atmosphere and behavioral modes exhibited by parents during child-rearing.[8] Both emotional warmth and harsh discipline are widely recognized in the East and West as significant parenting styles influencing individual development.[9,10] Emotional warmth is characterized by supportive and caring responses from parents to fulfill children's emotional needs, whereas harsh discipline refers to coercive actions or negative emotional expressions in response to children's inappropriate behaviors.[11,12] There is a close relationship

Received: 1 March 2024
Accepted: 30 May 2024
Published: 6 June 2024

between adolescent problem behaviors and parenting styles characterized by emotional warmth and harsh discipline. Existing studies have shown a negative correlation between parental warmth and problem behaviors;[13] for example, paternal warmth significantly predicts a reduction in children's externalizing problem behaviors one year later.[14] Longitudinal studies have found that parental physical punishment significantly predicts externalized problem behaviors such as aggression and disciplinary violations.[15] Authoritarian, strict, and punitive parenting methods are more likely to result in aggressive behaviors in children.[16,17] Other research indicates that strict parental control positively predicts internalized problem behaviors in children.[18] In summary, previous studies have primarily examined parental emotional warmth or harsh discipline as single-dimensional factors, neglecting the simultaneous presence of both styles and their combined impact on individual social adaptation. In family education, emotional warmth and harsh discipline often coexist, as seen in common Chinese familial roles like "tiger mom and cat dad" or "strict father and kind mother", maintaining educational authority while providing sufficient warmth and love. Therefore, the first research question of this study is to examine the impact of both emotional warmth and harsh discipline on adolescent social adaptation when these two different parenting styles are considered simultaneously.

From a developmental perspective, the influence of parenting styles on adolescent problem behaviors may not be direct but mediated through individual internal factors.[19] Social information processing theory suggests that higher cognitive functions determine the individual socialization process.[20] Executive function, responsible for behavior planning and guidance, is a lifelong higher cognitive ability.[21] Inhibitory control, a key element of higher cognitive abilities and a core module of executive function, refers to the individual's ability to self-regulate and control impulses by suppressing distractions and impulsive responses.[22] According to this theoretical model, deficiencies in deep cognitive abilities disrupt the information processing process, leading to abnormal social behaviors such as aggression, conflict, and hostile interpretations.[23] Numerous studies show that inhibitory control is closely related to individual internalized and externalized problems, with low inhibitory control being a risk factor for self-harm and aggressive behaviors, as well as being linked to conditions like ADHD, schizophrenia, and autism spectrum disorders.[24–26] A 32-year longitudinal study showed that individuals with high inhibitory control between ages 3–11 were less likely to engage in adverse behaviors like dropping out of school, smoking, and drug use in adolescence, and experienced more life satisfaction and better physical and mental health as adults.[27] Research also suggests that inhibitory control mediates the effect of parenting styles on problem behaviors, Parental harsh discipline significantly influences children's behavioral development through their inhibitory control and emotional regulation.[28,29] Inhibitory control plays a significant role in the impact of parenting styles on problematic behaviors, with studies indicating that verbal abuse and corporal punishment reduce children's self-control abilities, leading to more disciplinary behaviors.[30] Similar findings have been reported in Chinese research. Children's self-control partially mediates the relationship between parental psychological control and both internalized and externalized problem behaviors.[31] Therefore, the second research question of this study is to explore whether inhibitory control mediates the effects of emotional warmth and harsh discipline on internalized and externalized problem behaviors.

Although some studies have explored the relationship between parenting styles, inhibitory control, and problem behaviors, there are still deficiencies. First, research has mainly focused on the impact of either positive or negative parenting styles, lacking a comparative analysis of the effects of emotional warmth and harsh discipline simultaneously and the differences in the mechanisms of inhibitory control under different parenting styles. Secondly, the primary subjects of current research have been children, with fewer studies on adolescents. Adolescence represents a critical period characterized by significant psychological and physiological changes, presenting unique developmental challenges and transitions that can significantly impact an individual's social adaptation process.[32] Therefore, this study focuses on adolescents, addressing their social adaptation issues and exploring the impact of modern parental harsh discipline and emotional warmth on adolescent problem behaviors and the mediating role of inhibitory control, providing theoretical guidance and empirical evidence.

Materials and Methods

Participants and Procedure

After explaining the purpose and procedures of this study to the school and obtaining the school's consent, graduate students who have undergone unified training will administer the questionnaire. Before the start of the study, we obtained

the informed consent of the students and their parents, and informed them that they could withdraw from the study at any time. The test was conducted on a class basis and the questionnaires were collected uniformly. Finally, the participants were given a gift worth 5 RMB (USD 0.73).

A cluster sampling method was used to measure adolescents. 428 valid data were collected and were included in the analysis. The age of the participants ranged from 15 to 24 years (Mean = 17.21). Table 1 shows the demographic characteristics of the participants.

Measures

Parenting Style

Parenting style was measured using the Egna Minnen av Barndoms Uppfostran scale (EMBU).[33] The full scale tests the father's parenting style with 58 items divided across six dimensions and the mother's parenting style with 57 items divided across five dimensions. To meet the aims of this study, this study only used the dimensions of "father emotional warmth", "mother emotional warmth", "father harsh discipline" and "mother harsh discipline". Participants responded to using a 4-point Likert scale (1 = never; 4 = always). Cronbach's α ranges from 0.891 to 0.927 in this study.

Inhibitory Control

The inhibitory control (IC) subscale of the Executive Function Behavior Assessment scale (BRIEF) developed by Gioia et al was used for measurement.[34] This dimension comprises 11 items, and participants respond to each item using a 3-point Likert scale (1 = not applicable or never; 3 = very much or often). To facilitate interpretation of the results, all items was scored in reverse. The higher the score, the higher the inhibitory control ability of the subjects. Cronbach's α was 0.839 in this study.

Problem Behavior

The Youth Self-Report scale (YSR) compiled and revised by Achenbach and Rescorla was used to measure problem behaviors.[35] This scale is a self-report version of the Achenbach Child Behavior Checklist, which is applied to children and adolescents aged 6–18 years. The scale includes four dimensions: aggression, rule-breaking behavior, anxiety/depression, and withdrawal/depression. Using the "aggression" and "rule-breaking behavior" to measure the externalized problem behavior, a total of 32 questions, and using the "anxiety/depression" and "withdrawal/depression" to measure

Table 1 Sample Characteristics

Characteristics		N	%
Sex	Male	129	30.14
	Female	299	69.86
Grade	Freshman	141	32.94
	Sophomore	287	67.06
Father's education	Junior high school or less	290	70.05
Senior high school	Senior high school	96	23.19
	College or more	28	6.76
Mother's education	Junior high school or less	329	79.09
	Senior high school	81	15.47
	College or more	6	1.44
Father's occupation	Farmers or unemployed	120	30.46
	Semi professionals	182	46.19
	Professionals	92	23.35
Mother's occupation	Farmers or unemployed	192	48.98
	Semi professionals	101	25.77
	Professionals	99	25.26
Family income (monthly)	<3000 RMB	152	37.53
	3000–6000 RMB	162	40.00
	>6000 RMB	91	22.47

Notes: Due to missing data, the total number of people in certain categories accounts for less than 100%.

the internalized problem behavior, with a total of 21 questions. The higher the score, the more serious the problem behavior. Participants respond to items using a 3-point Likert scale (1 = not at all or never, 3 = very much or often). Cronbach's α ranges from 0.764 to 0.822 in this study.

Socioeconomic Status

Socioeconomic status (SES) was determined by the educational level of the parents, their occupations, and the family's monthly income. The individual with the highest level of education and the highest occupational classification among both parents was selected to represent the education level and occupation. After converting the education level, occupation, and family monthly income into standard scores respectively, the mean of the three was calculated. A higher score indicated a higher level of socioeconomic status.

Statistical Analysis

Data analysis was performed using SPSS 26.0 and Mplus7.4. Measurement data were analysed by mean standard deviation (X±s). $p<0.05$ was considered statistically significant. The Harman's one-factor test through exploratory factor analysis was performed to examine common method variance before regression analysis. The correlation between gender, SES, parenting style, inhibition control and problem behavior were analyzed. The paired sample *t*-test was used to test whether the differences in parenting styles between father and mother were significant. Use Mplus to test the mediation model. The two dimensions of parenting style were used as independent variables, inhibitory control as intermediary variables, externalized and internalized problem behaviors as dependent variables, and gender and SES were used as control variables., Finally, test whether there were differences between the mediating pathways and whether there were gender differences in the model.

Results

Common Method Bias Analysis

Harman's single-factor method was used to test the common method deviation. Principal components analysis showed that there were 32 factors with eigenvalues greater than 1, and the amount of variance explained by the first factor was 15.846%, which is less than the critical value of 40%.[36] Thus, the effect of common method bias was negligible.

Sample Characteristics

Participants were 428 adolescents (*M*age = 17.21, range = 15–24; 30.14% boys). There were 141 (32.94%) freshmen and 287 (67.06%) sophomores. Other characteristics of the sample are presented in Table 1.

Correlation Analysis

FEW was positively correlated with IC, and negatively correlated with AG, AD and WD. MEW was positively correlated with IC, and negatively correlated with problem behaviors (from AG to WD). FHD was negatively correlated with IC, and positively correlated with problem behaviors. MHD was negatively correlated with IC, and positively correlated with problem behaviors. IC was negatively correlated with problem behaviors. The results are shown in Table 2.

The Regressive Analysis

Mplus7.4 was used to test the predictive effect of parenting style on problem behavior. Gender and SES were used as control variables, parenting style was used as independent variables, and problem behaviors were dependent variable. The model fit was acceptable ($\chi2 = 42.966$, df = 13, RMSEA = 0.076, CFI = 0.967, TLI = 0.925, SRMR = 0.023). The results indicated that FEW significantly negatively predicted IPB ($\beta = -0.139$, $t = -2.235$, $p<0.05$). FHD significantly positively predicts EPB ($\beta = 0.260$, $t = 4.229$, $p<0.001$) and IPB ($\beta = 0.180$, $t = 3.071$, $p<0.01$). MHD significantly positively predicts EPB ($\beta = 0.322$, $t = 5.621$, $p<0.001$) and IPB ($\beta = 0.278$, $t = 4.851$, $p<0.001$).

Table 2 Descriptive Statistics and Correlation Analysis

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1.Gender	0.699	0.459	1										
2.SES	0.000	0.712	−0.198***	1									
3.FEW	2.369	0.587	−0.154**	0.053	1								
4.MEW	2.559	0.575	−0.145**	0.070	0.576***	1							
5.FHD	1.411	0.499	−0.263***	0.053	−0.250***	−0.127*	1						
6.MHD	1.422	0.505	−0.157**	0.067	−0.158**	−0.296***	0.478***	1					
7.IC	2.613	0.361	0.027	0.035	0.102*	0.138**	−0.319***	−0.307***	1				
8.AG	1.423	0.273	−0.080	0.056	−0.111*	−0.126**	0.361***	0.345***	−0.636***	1			
9.RB	1.277	0.246	−0.228***	0.107*	−0.068	−0.116*	0.419***	0.365***	−0.555***	0.699***	1		
10.AD	1.546	0.353	0.098*	−0.014	−0.176***	−0.139**	0.288***	0.308***	−0.496***	0.583***	0.491***	1	
11.WD	1.596	0.413	0.047	−0.073	−0.239***	−0.207***	0.284***	0.234***	−0.443***	0.511***	0.447***	0.756***	1

Notes: *$p<0.05$, **$p<0.01$, ***$p<0.001$.

Abbreviations: FEW, Father emotional warmth; FHD, Father harsh discipline; MEW, Mother emotional warmth; MHD, Mother harsh discipline; IC, inhibitory control; AG, Aggression; RB, Rule-breaking behavior; AD, Anxiety/Depression; WD, Withdrawal/Depression.

https://doi.org/10.2147/PRBM.S466830

The Mediating Effect Analysis

Mplus7.4 was used to test the mediating effect. Gender and SES was used as a control variable, parenting style was used as independent variables, inhibitory control was mediator variable, and problem behaviors were dependent variable. The modified model fitted perfectly ($\chi2 = 43.192$, df = 15, RMSEA = 0.068, CFI = 0.975, TLI = 0.933, SRMR = 0.022).

The results indicated that FEW negatively predicted IPB ($\beta = -0.138$, $p<0.05$). FHD significantly negatively predicted IC ($\beta = -0.179$, $p<0.01$), and had a significant positive effect on EPB ($\beta = 0.153$, $p<0.01$). MHD significantly negatively predicted IC ($\beta = -0.245$, $p<0.001$), and significantly positively predicted EPB ($\beta = 0.178$, $p<0.01$) and IPB ($\beta = 0.179$, $p<0.01$). IC played a significant negative role in EPB ($\beta = -0.590$, $p<0.001$) and IPB ($\beta = -0.409$, $p<0.001$). The results of mediating effect shown in Table 3 and Figure 1.

Used the bootstrapping method to resample the data 5000 times and calculate 95% confidence intervals. Results (Table 4) revealed that the mediating effect of IC on FHD and EPB was significant, accounting for 40.70% of the total effect. The mediating effect of IC on MHD and EPB was significant, accounting for 44.72%. The mediating effect of IC on FHD and IPB was significant, accounting for 40.56%. The mediating effect of IC on MHD and IPB was significant, accounting for 35.84%.

In addition, by defining subtraction statements between paths in Mplus, we examined whether there were significant differences among the intermediate paths in the model. The results showed that there were not significant (ps>0.05). Multiple Group Analysis was used to examine whether there was gender difference in the model, the results indicate that there was no significant gender difference ($\Delta\chi2 = 2.235$, Δdf = 14, $p>0.05$).

Discussion

This study examines the effects and pathways of harsh parental discipline and emotional warmth on adolescents' internalized and externalized problem behaviors. The findings reveal the complex impact of harsh discipline and emotional warmth on adolescents' problem behaviors. Specifically, harsh parental discipline significantly predicts both internalized and externalized problems, while paternal emotional warmth significantly predicts adolescents' internalized problems. Harsh parental discipline affects problem behaviors through the mediating role of inhibitory control.

Firstly, harsh parental discipline significantly predicts both types of problem behaviors, while paternal emotional warmth significantly predicts internalized behaviors. This indicates that compared to emotional warmth, harsh punitive parenting is a significant risk factor for adolescent problem behaviors, with a broader impact on social adaptability. This is consistent with previous studies.[30,37] The rationale behind this phenomenon, according to behaviorism, is that harsh punishment's explicit and immediate feedback nature has a more direct and intense impact on adolescents, quickly drawing their attention and triggering strong emotional and behavioral responses, such as fear, stress, or anger, which could exacerbate or induce problem behaviors. In contrast, the impact of emotional warmth is more indirect and long-term, taking longer to manifest in adolescents' behavior and psychological state. Furthermore, according to self-

Table 3 Mediation Model

Variable	Outcome Variable: IC			Outcome Variable: EPB			Outcome Variable: IPB		
	β	t	95% CI	β	t	95% CI	β	t	95% CI
1.Gender	−0.044	−0.805	[−0.149, 0.068]	−0.078	−1.657	[−0.168, 0.014]	0.155	3.090**	[0.054, 0.252]
2.SES	0.044	0.940	[−0.048, 0.136]	0.079	2.003*	[0.002, 0.157]	−0.001	−0.012	[−0.099, 0.095]
3.FEW	0.003	0.055	[−0.118, 0.129]	−0.014	−0.262	[−0.121, 0.091]	−0.138	−2.339*	[−0.254, −0.020]
4.MEW	0.010	0.154	[−0.113, 0.137]	−0.015	−0.268	[−0.122, 0.096]	0.051	0.741	[−0.087, 0.185]
5.FHD	−0.179	−2.628**	[−0.320, −0.050]	0.153	2.358*	[0.029, 0.283]	0.107	1.701	[−0.015, 0.230]
6.MHD	−0.245	−3.935***	[−0.368, −0.122]	0.178	3.273**	[0.071, 0.282]	0.179	2.660**	[0.042, 0.308]
7.IC				−0.590	−12.327***	[−0.686, −0.497]	−0.409	−7.731***	[−0.509, −0.306]
R^2	0.131**			0.583***			0.337***		

Notes: β is the standardized regression coefficient. *$p<0.05$, **$p<0.01$, ***$p<0.001$.

Abbreviations: FEW, Father emotional warmth; FHD, Father harsh discipline; MEW, Mother emotional warmth; MHD, Mother harsh discipline; IC, inhibitory control; EPB, Externalized problem behavior; IPB, Internalized problem behavior.

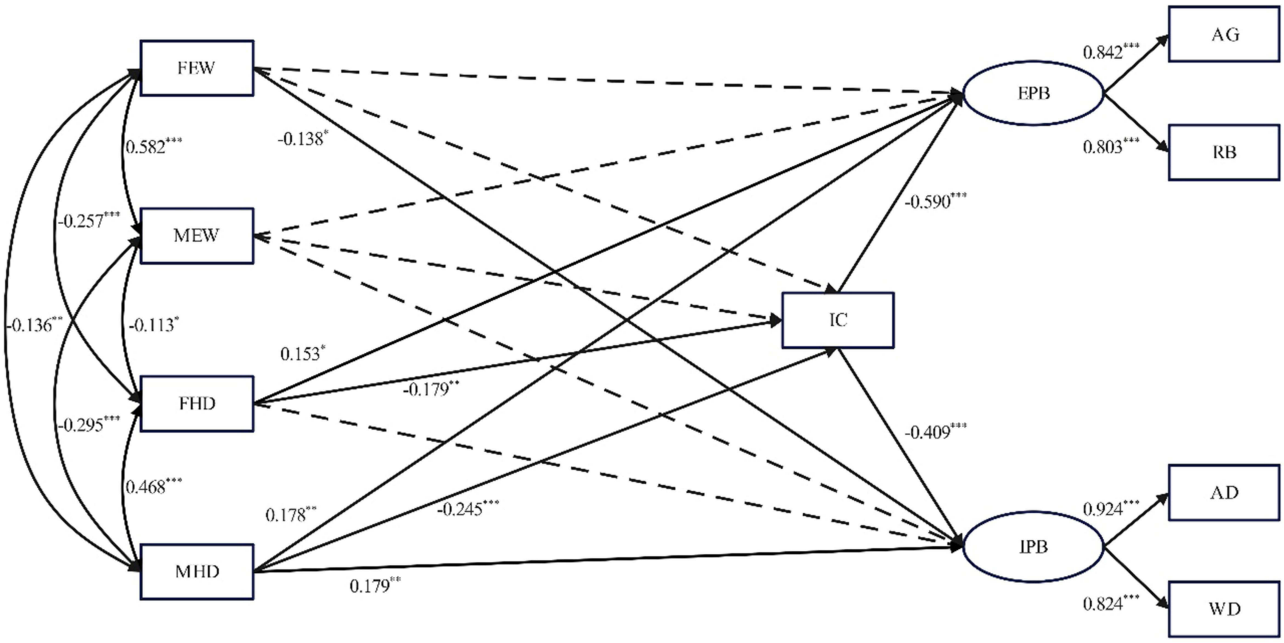

Figure 1 The mediating effect model.
Notes: *p<0.05, **p<0.01, ***p<0.001.
Abbreviations: FEW, Father emotional warmth; FHD, Father harsh discipline; MEW, Mother emotional warmth; MHD, Mother harsh discipline; IC, inhibitory control; EPB, externalized problem behavior; IPB, internalizes problem behavior; AG, Aggression; RB, Rule-breaking behavior; AD, Anxiety/Depression; WD, Withdrawal/Depression.

determination theory, adolescents have three basic psychological needs: autonomy, competence, and relatedness.[38] Emotional warmth primarily satisfies the need for relatedness, but the presence of harsh punishment may leave the needs for autonomy and competence unmet, limiting the positive effects of emotional warmth. In other words, even if there is emotional support in the family environment, if individuals feel their abilities are not fully recognized, the protective effect of emotional warmth against problem behaviors may be weakened. The study also found that paternal

Table 4 Mediating Effect Analysis of the Chain Mediating Model

Model	Paths	Effect Size	Boot SE	Boot CI		The Proportion of Effect Size
				Lower	Upper	
FHD to EPB	Total effects	0.258	0.075	0.109	0.401	100.00%
	Direct effects	0.153	0.065	0.029	0.283	59.30%
	Indirect effects	0.105	0.041	0.031	0.194	40.70%
MHD to EPB	Total effects	0.322	0.068	0.189	0.456	100.00%
	Direct effects	0.178	0.054	0.071	0.282	55.28%
	Indirect effects	0.144	0.038	0.075	0.227	44.72%
FEW to IPB	Total effects	−0.139	0.064	−0.265	−0.013	100.00%
	Direct effects	−0.138	0.059	−0.254	−0.02	99.28%
	Indirect effects	−0.001	0.026	−0.052	0.05	0.72%
FHD to IPB	Total effects	0.180	0.064	0.056	0.305	100.00%
	Direct effects	0.107	0.063	−0.015	0.23	59.44%
	Indirect effects	0.073	0.031	0.021	0.144	40.56%
MHD to IPB	Total effects	0.279	0.074	0.131	0.418	100.00%
	Direct effects	0.179	0.067	0.042	0.308	64.16%
	Indirect effects	0.100	0.027	0.052	0.158	35.84%

Notes: Only models with significant main effects were presented in the table.
Abbreviations: FEW, Father emotional warmth; FHD, Father harsh discipline; MEW, Mother emotional warmth; MHD, Mother harsh discipline; IC, inhibitory control; EPB, externalized problem behavior; IPB, internalizes problem behavior.

emotional warmth has a significant protective effect against internalized behaviors, primarily because gender role theory suggests that societal and cultural expectations of gender-specific behaviors influence individual behavior patterns.[39] In many cultures, fathers are seen as the authority and pillar of the family, while mothers are more often viewed as providers of daily care and emotional support. Therefore, paternal emotional warmth breaks traditional gender role stereotypes, offering additional security and emotional value, helping them cope with life's challenges and reducing the occurrence of internalized problems.

Secondly, the study found that inhibitory control mediates the relationship between harsh parental discipline and adolescents' problem behaviors, but not between paternal emotional warmth and internalized behaviors. This further indicates that the mechanisms of emotional warmth and harsh discipline on adolescent internalized behaviors are not the same, with harsh parental discipline significantly impacting problem behaviors through inhibitory control. This phenomenon arises because harsh discipline in parenting can place adolescents in a state of high external control, lacking internal control, reducing their inhibitory control abilities, and thus leading to more problem behaviors.[29,40] According to social information processing theory, self-control theory, and general crime theory, the emergence of adolescent problem behaviors may stem from a deficiency in higher cognitive ability—inhibitory control, with lower self-control abilities being a major factor in delinquency and criminal behavior.[41]

Finally, multi-group structural equation modeling revealed no gender differences in the mediating effects of harsh parental discipline on problem behaviors. This is consistent with existing research, such as Finkenauer et al (2005), which found that harsh parenting indirectly affects children's behavioral and emotional problems through self-control, with no mediation effect differing by gender.[42] This suggests a certain similarity in the mediating effect of inhibitory control between parental rearing and adolescent problem behaviors across genders. The reason for this phenomenon may be that individuals learn social behavior through observing, imitating, and emulating others. Regardless of gender, adolescents observe harsh parental discipline in similar environments and internalize it as a way of dealing with problems, leading to no significant gender differences in the mediating effects.

This study incorporates both paternal and maternal emotional warmth and harsh discipline into a single model, providing a comprehensive examination of different parenting styles' effects on adolescent internalized and externalized problem behaviors and their mechanisms. It offers important guidance for deepening the scientific understanding of parental emotional warmth and harsh discipline, improving parenting strategies, and thereby preventing and reducing adolescent problem behaviors to promote good social adaptation. Specifically, in educational practice, parents should avoid harsh discipline parenting methods and engage with their children in positive, healthy ways. We can also intervene and prevent problem behaviors by improving adolescents' inhibitory control abilities. Individuals with poor inhibitory control can be identified through tasks such as the Stroop task, delay of gratification task, and stop-signal task,[43] focusing on enhancing cognitive functions, improving cognitive beliefs, and processing models for individual intervention and correction. Additionally, training in inhibitory control can be incorporated into psychological health education and home-school cooperation courses as part of a group-level prevention strategy.[44] Research also shows that mindfulness training can help improve individual inhibitory control abilities.[45] Through effective means such as those mentioned above, we can improve adolescents' inhibitory control abilities to intervene in and prevent externalized and internalized problem behaviors, thereby genuinely enhancing adolescents' social adaptability and achieving comprehensive development of their qualities.

Conclusion and Implications

The findings of this study indicate that harsh parental discipline significantly predicts both internalized and externalized problem behaviors, while paternal emotional warmth significantly predicts adolescent internalized problem behaviors. In contrast, inhibitory control only mediates the relationship between harsh parental discipline and adolescents' internalized and externalized problems. These research results contribute significantly to a deeper understanding of parental emotional warmth and harsh discipline as parenting styles, enabling improvements in parenting strategies to prevent and reduce internalized and externalized problem behaviors in adolescents and promoting better social adaptation.

In the practice of family education, on the one hand, it is important to recognize that even in the presence of emotional warmth, harsh discipline still negatively predicts adolescents' internalized and externalized problem behaviors.

Therefore, the "Tiger Mom, Cat Dad" or "Strict Father, Kind Mother" parenting styles are not scientifically recommended. Parents should avoid harsh disciplinary methods, establish open communication channels, and engage with their children in a positive and healthy manner. Such a family atmosphere not only supports children's growth but also enhances understanding and support among family members. On the other hand, we can intervene and prevent internalizing and externalizing problem behaviors by improving adolescents' inhibitory control. For adolescents with poor inhibitory control, individual-level interventions and corrections can be achieved by enhancing cognitive functions, improving cognitive beliefs, and refining information processing patterns. At the group level, inhibitory control training can be incorporated into mental health education and home-school cooperation curricula through implicit learning.[44] By adopting these effective methods to enhance adolescents' inhibitory control, we can intervene and prevent problem behaviors, thereby truly improving social adaptation and promoting the comprehensive development of adolescents' competencies.

This study also has certain limitations. Theories such as the bidirectional theory of parent-child relationships and developmental interaction models emphasize the two-way influence between parenting and individual adaptation. Future research needs to conduct further analysis through longitudinal data.

Data Sharing Statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics

The procedures we conducted on human subjects were approved by the ethical standards of the Academic Committee of Shandong Normal University, and conformed to the ethical standards set forth in the 1964 Declaration of Helsinki and its later amendments or similar ethical standards. The participants provided their written informed consent forms and were told they could withdraw from the research at any time.

Disclosure

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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