



家庭功能对青少年内外化问题行为的影响: 共情和情绪能力的多重中介作用*

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【摘要】目的 探讨共情和情绪能力在家庭功能和青少年内外化问题行为关联之间的中介作用。**方法** 采用成都儿童正向成长队列中2022年6-7月调查数据,研究对象为成都市6所中小学5~9年级学生。分别使用Achenbach儿童行为量表(CBCL)、中国家庭评估测量工具(C-FAI)、人际反应指数中文版共情分量表(C-IRI)、中国积极青年发展量表(CPYD)情绪能力(EC)分量表评估调查对象的内外化问题行为、家庭功能、共情和情绪能力,以各量表总得分分别除以各维度条目数后的平均分为其最终得分。采用独立样本 t 检验或单因素方差分析,考察在不同人口统计学特征(性别、年级和地区)学生群体间,家庭功能、共情、情绪能力和内外化问题行为间的差异。采用Pearson相关分析考察家庭功能、共情、情绪能力与内外化问题行为之间的关系。使用AMOS 24.0验证假设模型,并通过结构方程模型检验共情和情绪能力在家庭功能与青少年内外化问题行为间的中介作用。**结果** 本研究共纳入研究对象3 026名,其中男生1 548人(51.16%),女生1 478人(48.84%);5年级798人(26.37%),6年级738人(24.39%),7年级567人(18.74%),8年级614人(20.29%),9年级309人(10.21%);城镇2 064人(68.21%),农村962人(31.79%)。差异性分析结果显示,青少年内外化问题行为在不同年级学生之间差异有统计学意义($P=0.004$),且家庭功能、共情能力得分在不同年级学生间差异也有统计学意义(均 $P<0.001$),而青少年内外化问题行为在不同性别和地区间的差异无统计学意义($P=0.919, 0.959$)。相关性分析结果显示,家庭功能得分(得分越高家庭功能越差)与共情、情绪能力均呈负相关($r=-0.482, -0.432, P<0.01$),与内外化问题行为呈正相关($r=0.220, P<0.01$);共情与情绪能力呈正相关($r=0.402, P<0.01$);共情、情绪能力与内外化问题行为各维度均呈负相关($r=-0.115, -0.305, P<0.01$)。情绪能力在家庭功能与青少年内外化问题行为之间起部分中介作用,中介效应值为0.042(95%CI: 0.031 ~ 0.057);共情、情绪能力在家庭功能与青少年内外化问题行为之间起链式中介作用,中介效应值为0.010(95%CI: 0.007 ~ 0.014)。**结论** 家庭功能可直接、并通过共情和情绪能力的链式中介作用影响青少年内外化问题行为。

【关键词】 家庭功能 共情 情绪能力 青少年内外化问题行为 多重中介模型

Effect of Family Functioning on Adolescents' Internalizing and Externalizing Problem Behaviors: The Multiple Mediating Roles of Empathy and Emotional Competence PENG Yin-hui¹, ZHAO Li^{1△}, LI Xiang¹, LONG Yu¹, XU Xin-mao¹, ZHANG Huan-fang¹, JIANG Li-hua^{1,2}. 1. Department of Health Policy and Management, West China School of Public Health and West China Fourth Hospital, Sichuan University, Chengdu 610041, China; 2. Center for Family Medicine/Faculty of Family Medicine, West China Hospital and West China School of Medicine, Sichuan University, Chengdu 610041, China

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【Abstract】 Objective To examine the mediating role of empathy and emotional competence in the association between family functioning and internalizing and externalizing problem behaviors among adolescents in China. **Methods** In this study, we used the data from the June-July 2022 survey of Chengdu Positive Child Development (CPCD) cohort. All respondents were 5th-9th graders from six primary or secondary schools in Chengdu. The Achenbach Child Behavior Checklist (CBCL), the Chinese Family Assessment Instrument (C-FAI), the empathy subscale of the Chinese version of the Interpersonal Reactivity Index (C-IRI), and the emotional competence (EC) subscale of the Chinese Positive Youth Development Scale (CPYD) were used to evaluate the respondents' internalizing and externalizing problem behaviors, family functioning, empathy, and emotional competence, respectively. The average score derived from the total score of a scale divided by the number of entries in each dimension was used as the final score of the scale. Independent samples t -tests or one-way analysis of variance (ANOVA) were performed to examine the differences in family functioning, empathy, emotional competence, and internalizing and externalizing problem behaviors across student groups with different demographic characteristics (sex, grade, and region). Pearson correlation analysis was

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conducted to examine the relationship between family functioning, empathy, emotional competence, and internalizing and externalizing problem behaviors. AMOS 24.0 was used to validate the hypothesized model and structural equation modeling was used to analyze the mediating effects of empathy and emotional competence between family functioning and internalizing and externalizing problem behaviors among adolescents. **Results** A total of 3 026 eligible participants were included, including 1 548 (51.16%) male students and 1 478 (48.84%) female students. Among the respondents, 798 (26.37%) were 5th graders, 738 (24.39%) were 6th graders, 567 (18.74%) were 7th graders, 614 (20.29%) were 8th graders, and 309 (10.21%) were 9th graders. In addition, 2 064 (68.21%) of all respondents were from urban areas and 962 (31.79%) were from rural areas. The results of the difference analysis showed that the differences in adolescents' internalizing and externalizing problem behaviors were statistically significant between students of different grades ($P=0.004$), and that the differences in family functioning and empathy scores were also statistically significant between students of different grades (all $P<0.001$), whereas the differences in adolescents' internalizing and externalizing problem behaviors were not statistically significant between sexes and regions ($P=0.919, 0.959$). The results of correlation analysis showed that family functioning scores (the higher the score, the worse the family functioning) were significantly negatively correlated with empathy and emotional competence ($r=-0.482, -0.432, P<0.01$), and significantly positively correlated with internalizing and externalizing problem behaviors ($r=0.220, P<0.01$). Empathy was significantly positively correlated with emotional competence ($r=0.402, P<0.01$). Empathy and emotional competence were significantly negatively correlated with all the dimensions of internalizing and externalizing problem behaviors ($r=-0.115, -0.305, P<0.01$). Emotional competence partially mediated the relationship between family functioning and adolescents' internalizing and externalizing problem behaviors, with a mediation effect value being 0.042 (95% [confidence interval] CI: 0.031-0.057). Empathy and emotional competence had chain mediation effect between family functioning and adolescents' internalizing and externalizing problem behaviors, with the value of the mediation effect being 0.010 (95% CI: 0.007-0.014). **Conclusion** Family functioning influences adolescents' internalizing and externalizing problem behaviors in a direct way and through the chain-mediating roles of empathy and emotional competence.

【Key words】 Family functioning Empathy Emotional competence Adolescent internalizing and externalizing problem behaviors Multiple mediation Model

青少年内外化问题行为是指个体内部的消极情绪(如抑郁、焦虑等)和外部的消极反应(如打架、违纪等)^[1]。目前我国约有3 000万青少年遭受不同程度的情绪障碍和行为问题困扰,且这一数据呈逐年上升的趋势,成为重要的公共卫生问题^[2]。青少年阶段是各种问题行为的高发期^[3],容易产生退缩、抑郁、焦虑、攻击、违纪等内外化问题行为^[4-5]。青春期的内外化问题行为会严重影响个体学业成就、同伴关系等方面,并会阻碍个体健康正向成长^[6]。基于此,探析影响青少年内外化问题行为的因素及作用机制,对于预防、减少和避免青少年问题行为具有重要的现实意义。家庭功能是指系统的家庭生活质量,涉及家庭的健康、能力、优势和弱点,对青少年内外化问题行为的发生和持续有重要的影响^[7],家庭功能障碍易导致青少年发生内外化问题行为^[8]。但是,其作用机制尚不完全明确。

共情是指个体设身处地认知他人的情感和情感体验,并在情绪、情感和行为上表现出与他人相似的反应^[9]。家庭对个体共情有重要影响,比如家庭教养方式对个体共情有显著的预测作用^[10],且共情可以显著预测青少年内外化问题行为^[11]。因此,共情在家庭功能与青少年内

外化问题行为之间可能具有中介效应。情绪能力是指个体在处理和理解情感方面的技能和智力,包括识别、表达、理解和管理情感的能力,以及与他人建立情感联系和适应不同情感环境的能力^[12]。研究发现,家庭功能水平是个体情绪能力的预测因素。家庭功能较弱的个体情绪抑制和情感表达能力更有限^[13]。情绪管理能力对青少年的身心健康具有重要意义^[14],情绪是青少年问题行为高发的关键因素,如自伤等^[15]。因此,情绪能力在家庭功能与青少年内外化问题行为之间可能具有中介效应。研究表明,共情能力可能对增强个体情绪能力具有显著的正向预测作用^[16]。

综上,本研究假设家庭功能对青少年内外化问题行为有预测作用,且共情和情绪能力在家庭功能与青少年内外化问题行为之间存在链式中介作用,进而探析家庭功能对青少年内外化问题行为影响的作用机制。

1 对象与方法

1.1 研究对象

研究采用成都儿童正向成长队列(Chengdu Positive Child development, CPCD)2022年6-7月采集的第四轮调

查数据^[17]。采用整群抽样方式抽取成都中心城区、北部和南部郊县的6所中小学5~9年级学生进行问卷调查,排除存在认知障碍及无法独立填答问卷的学生,剔除无效问卷后共纳入3 026名有效样本,样本有效率92.12%。本研究已通过四川大学伦理委员会审批(伦理编号:K2020025),并获得研究对象知情同意。

1.2 研究工具

采用美国心理学家Achenbach编制的儿童行为量表(Child Behavior Checklist, CBCL)测量青少年内外化问题行为,包括退缩、躯体主诉、焦虑抑郁、违纪行为和攻击行为五个维度,共计65个条目。对每个条目设计为“无此表现”计“0分”,“有时出现”计“1分”,“明显出现”计“2分”,总分130分,得分越高,表明青少年内外化问题行为越严重,量表信效度良好^[18]。经检验,本研究中该量表的Cronbach's α 系数为0.871。

采用SHEK等编制的中国家庭评估测量工具(Chinese Family Assessment Instrument, C-FAI)测量青少年家庭功能,包括相互关系、沟通、冲突与和谐、父母关心和父母控制五个维度,共33个条目,采用1~5级计分(1为“十分相似”,5为“十分不相似”),量表中9个条目反向计分,总分165分,得分越高,表明家庭功能障碍程度越高,量表信效度良好^[19]。经检验,本研究中该量表的Cronbach's α 系数为0.883。

采用人际反应指数中文版共情分量表(empathy subscale of the Chinese version of the Interpersonal Reactivity Index, C-IRI)评估共情情况,共11个条目。采用1~6级计分(1为“十分不同意”,6为“十分同意”),量表中3个条目反向计分,总分66分。得分越高,表明青少年共情越强,量表信效度良好^[20]。经检验,本研究中该量表的Cronbach's α 系数为0.833。

采用中国积极青年发展量表(Chinese Positive Youth Development Scale, CPYD)中情绪能力(emotional competence, EC)分量表,测量情绪抑制及表达能力。该量表共6个条目,采用1~6级计分方式(1为“非常不同意”,6为“非常同意”),总分36分,得分越高,表明青少年情绪抑制和表达能力越好^[21]。经检验,本研究中该量表的Cronbach's α 系数为0.880。

1.3 统计学方法

将数据导入SPSS 25.0,清洗数据后,首先通过Harman因子分析方法检验共同方法偏差,未旋转的主成分因素分析结果表明,特征根值大于1的因子有36个,其中第一个因子解释的变异量为15.50%,小于40%的临界标准,表明本研究不存在明显的共同方法偏差^[22]。通过

描述性统计计算出CBCL量表青少年内外化问题行为各维度得分和总分、C-FAI量表家庭功能及各维度得分、C-IRI量表的共情得分和CPYD量表情绪能力得分,以各量表总得分分别除以各维度条目数后的平均分为其最终得分。采用独立样本 t 检验或单因素方差分析,考察在不同人口统计学特征(性别、年级和地区)下,家庭功能、共情、情绪能力和内外化问题行为间的差异。采用Pearson相关分析考察家庭功能、共情、情绪能力与内外化问题行为之间的关系。使用AMOS 24.0验证假设模型,并通过结构方程模型检验共情和情绪能力在家庭功能与青少年内外化问题行为间的中介作用。

2 结果

2.1 调查对象的基本情况

本次调查共纳入3 026名中小學生,其中男生1 548人(51.16%),女生1 478人(48.84%);年龄8~19岁,平均年龄为(12.50 $\pm$ 1.61)岁;5年级798人(26.37%),6年级738人(24.39%),7年级567人(18.74%),8年级614人(20.29%),9年级309人(10.21%);2 064人(68.21%)来自城镇,962人(31.79%)来自农村。

2.2 家庭功能、共情、情绪能力与内外化问题行为的描述性统计和相关性分析

差异性分析结果显示,青少年内外化问题行为在不同年级学生间差异有统计学意义($P=0.004$),且家庭功能、共情能力得分在不同年级学生间差异有统计学意义(均 $P<0.001$),而青少年内外化问题行为在不同性别和地区的学生间差异无统计学意义($P=0.919$, $P=0.959$)。相关性分析结果显示,青少年家庭功能各维度得分与共情、情绪能力均呈显著的负相关,但与内外化问题行为呈显著正相关,并均有统计学意义($P<0.01$);情绪能力和共情呈现显著正相关,而共情、情绪能力与内外化问题行为各维度均呈显著的负相关,且均有统计学意义($P<0.01$)。结果见表1、表2。

2.3 复合多重中介模型检验

以家庭功能为自变量,青少年内外化问题行为为因变量,共情和情绪能力为中介变量,年级为控制变量建立模型,在Amos中拟合结构方程模型探析家庭功能、内外化问题行为、共情和情绪能力等各变量之间的关系,并检验共情和情绪能力的中介作用。模型的拟合指标RMSEA=0.074, GFI=0.953, AGFI=0.921, NFI=0.950, IFI=0.953, TLI=0.933, CFI=0.953,修正后的模型各项指标达到拟合要求,表明拟合效果良好^[22]。各项路径及系数见图1。

表 1 不同人口统计学特征在家庭功能、共情、情绪能力和内外化问题行为间差异性分析 ($n=3026$)

Table 1 Analysis of the differences in family functioning, empathy, emotional competence, and internalizing and externalizing problem behaviors across student groups with different demographic characteristics ($n=3026$)

Item	n	Family function			Empathy			Emotional competence			Internalizing and externalizing behavior		
		$\bar{x} \pm s$	t/F	P	$\bar{x} \pm s$	t/F	P	$\bar{x} \pm s$	t/F	P	$\bar{x} \pm s$	t/F	P
Sex			1.406	0.160		-2.534	0.011		0.644	0.520		0.102	0.919
Male	1 548	1.74±0.70			4.56±0.90			4.82±1.06			0.12±0.15		
Female	1 478	1.71±0.66			4.64±0.86			4.79±1.06			0.12±0.18		
Grade			10.649	<0.001		18.085	<0.001		0.794	0.529		3.916	0.004
Grade 5	798	1.66±0.65			4.75±0.89			4.79±1.03			0.13±0.14		
Grade 6	738	1.65±0.63			4.69±0.83			4.84±1.05			0.12±0.15		
Grade 7	567	1.74±0.71			4.53±0.91			4.82±1.07			0.12±0.23		
Grade 8	614	1.82±0.73			4.52±0.88			4.82±1.13			0.10±0.16		
Grade 9	309	1.87±0.71			4.32±0.86			4.72±1.00			0.11±0.17		
Region			-2.450	0.014		4.238	<0.001		0.721	0.471		0.051	0.959
Urban	2046	1.70±0.67			4.65±0.88			4.81±1.07			0.12±0.17		
Rural	962	1.77±0.70			4.50±0.88			4.78±1.04			0.12±0.17		

表 2 各变量的描述性统计和相关矩阵 ($n=3026$)

Table 2 Descriptive statistics and correlation matrix for each variable ($n=3026$)

V	Scale		r													
	M	s	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1.59	0.80	1													
2	1.78	0.89	0.783**	1												
3	1.88	0.86	0.532**	0.476**	1											
4	1.46	0.77	0.515**	0.474**	0.570**	1										
5	1.92	1.03	0.376**	0.379**	0.460**	0.437**	1									
6	1.72	0.68	0.753**	0.745**	0.808**	0.732**	0.725**	1								
7	4.80	1.06	-0.485**	-0.509**	-0.295**	-0.253**	-0.272**	-0.432**	1							
8	4.60	0.88	-0.400**	-0.380**	-0.401**	-0.403**	-0.308**	-0.482**	0.402**	1						
9	0.17	0.28	0.231**	0.262**	0.137**	0.072**	0.140**	0.202**	-0.280**	-0.105**	1					
10	0.08	0.17	0.174**	0.191**	0.111**	0.085**	0.107**	0.164**	-0.190**	-0.110**	0.462**	1				
11	0.11	0.19	0.193**	0.196**	0.127**	0.090**	0.165**	0.186**	-0.257**	-0.086**	0.632**	0.480**	1			
12	0.09	0.18	0.161**	0.156**	0.113**	0.091**	0.146**	0.163**	-0.220**	-0.119**	0.523**	0.387**	0.520**	1		
13	0.15	0.19	0.187**	0.179**	0.098**	0.061**	0.136**	0.156**	-0.252**	-0.081**	0.584**	0.464**	0.618**	0.680**	1	
14	0.12	0.17	0.243**	0.260**	0.142**	0.090**	0.174**	0.220**	-0.305**	-0.115**	0.827**	0.642**	0.784**	0.752**	0.846**	1

1: mutuality; 2: communication; 3: conflict and harmony; 4: parental concern; 5: parental control; 6: family function; 7: emotional competence; 8: empathy; 9: withdrawal; 10: somatic complaints; 11: anxiety and depression; 12: delinquent behavior; 13: aggressive behavior; 14: internalizing and externalizing behaviors. M : mean; V : variable; ** $P<0.01$.

2.4 中介效应的显著性检验

运用偏差校正非参数百分位Bootstrap法检验中介效应的显著性,重复取样5 000次,计算模型的总效应、直接

效应、间接效应、标准误和95%的置信区间。检验结果如表3所示。其中间接路径“家庭功能-共情-内外化问题行为”的95%置信区间跨过了0,中介效应不显著。其余路径

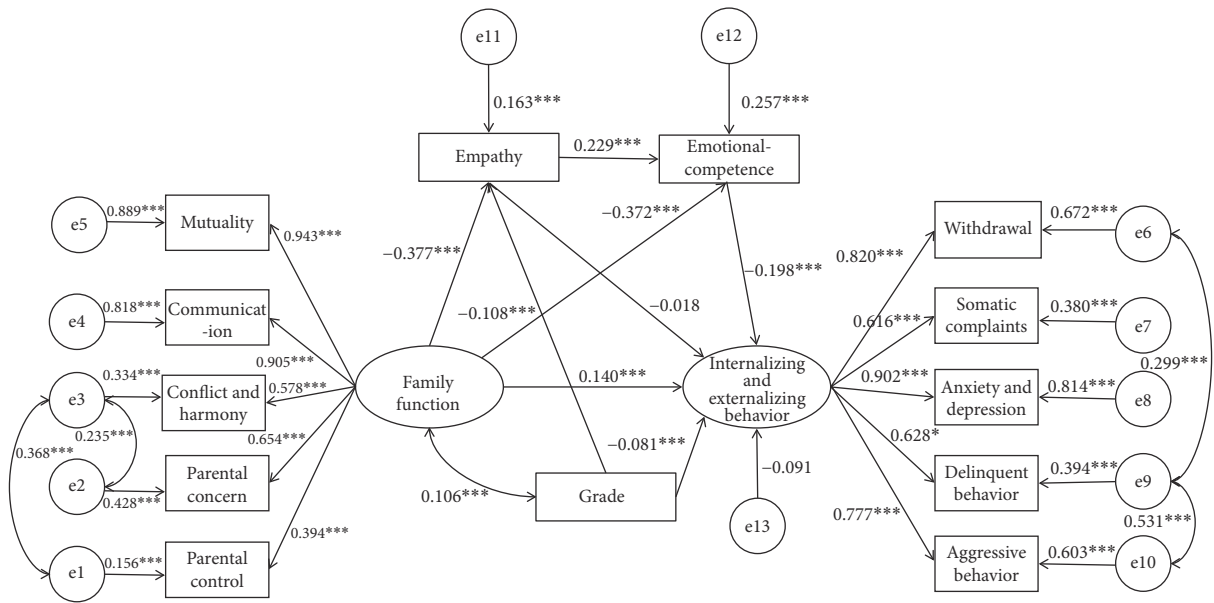


图 1 家庭功能对青少年内外化问题行为影响的中介效应模型路径系数图

Fig 1 Path coefficient plot of the mediating effects model of the influence of family functioning on adolescents' internalizing and externalizing problem behaviors

1-14 are explained in the notes to Table 2. e: residual error. The data in the figure are standardized coefficients. * $P<0.05$, *** $P<0.001$. $n=3\,026$.

表 3 模型的中介效应估计结果 ($n=3\,026$)

Table 3 Results of the mediation effect analysis of the model ($n=3\,026$)

Effect type	Point estimate	SE	Bootstrapping	
			Bias-Corrected 95% CI	Percentile 95% CI
Indirect effect 1	0.004	0.005	-0.006-0.013	-0.006-0.014
Indirect effect 2	0.042	0.006	0.031-0.057	0.030-0.056
Indirect effect 3	0.010	0.002	0.007-0.014	0.007-0.013
Total indirect effect	0.098	0.017	0.070-0.125	0.071 -0.127
Direct effect	0.140	0.026	0.090-0.191	0.093-0.193
Total effect	0.238	0.027	0.181-0.288	0.185-0.292

Indirect effect 1: family function-empathy-internalizing and externalizing problem behavior; Indirect effect 2: family function-emotional competence-internalizing and externalizing problem behavior; Indirect effect 3: family function-empathy-emotional competence-internalizing and externalizing problem behavior. SE: standard error; CI: confidence interval.

“家庭功能-情绪能力-内外化问题行为”“家庭功能-共情-情绪能力-内外化问题行为”和“家庭功能-内外化问题行为”的95%置信区间均未包含0, 具有统计学意义 ($P<0.001$), 表明共情和情绪能力在家庭功能对青少年内外化问题行为的影响中起部分中介作用。

3 讨论

3.1 家庭功能对青少年内外化问题行为的影响

相关性分析和结构方程模型分析结果表明, 家庭功能得分与内外化问题行为呈正相关, 家庭功能对青少年内外化问题行为有显著的预测作用, 即家庭功能越差, 个体越容易发生内外化问题行为, 这与迟新丽等^[8]和王恩娜

等^[23]的研究结果一致。个体与环境的交互作用理论认为, 个体的发展结果同时受到个体特质与环境的交互作用^[24]。发挥家庭功能积极作用的家庭, 如家庭和睦、父母关心等, 更能为青少年健康成长创造良好的环境, 有助于培养其积极情绪和正确的观念, 避免和减少问题行为的发生^[24]。反之, 家庭功能发展障碍, 如家庭成员间缺乏交流, 父母过度控制、管教、惩罚等, 会导致孩子出现抑郁、自伤等内外化问题行为^[25-26]。

3.2 共情和情绪能力的中介效应分析

中介效应检验发现, 家庭功能既能通过情绪能力的中介作用影响青少年内外化问题行为, 也能通过共情与情绪能力的链式中介作用影响青少年内外化问题行为。

良好的家庭环境是青少年全面健康发展的基础, 表现为亲子间交流密切, 家庭凝聚力强, 在个体面对负性生活事件时, 更能得到家庭成员的安慰、鼓舞和支持, 从而积极调节自己的情绪^[27], 生活这样的环境下, 有利于青少年形成良好的心理环境, 进一步提升其情绪调控能力。良好的家庭功能也会促使青少年更设身处地地觉知、把握与理解他人的情绪和情感, 同时有助于自身情绪抑制和表达能力的增加^[16]。相反, 家庭功能障碍时, 如家庭成员缺乏沟通, 家庭成员冲突等, 青少年会产生更多的不良情绪, 情绪抑制和表达能力降低, 同时也降低对他人情绪的感知性, 可能会导致青少年出现焦虑、抑郁、违纪和自伤等内外化问题行为^[26]。

本研究局限性在于: 其一, 仅选取了CPCD队列2022年6-7月收集的第四轮数据, 尚不能确定家庭功能与青少年内外化问题行为的因果关系, 未来将应用队列数据进一步分析可能的因果关联; 其二, 采用自填问卷方式收集数据, 可能存在信息偏倚, 未来可探索更规范的数据收集方式, 并考虑纳入更多地区共同研究; 其三, 本研究仍有部分效应无法通过情绪能力的中介作用和共情与情绪能力的链式中介作用解释, 期待后续研究进行补充, 以更全面地预防和干预青少年内外化问题行为的发生。

家庭是一个复杂、动态的系统, 其中外部环境与内部因素相互作用, 共同塑造和影响个体情感、认知和社会发展等多个方面^[28]。良好的家庭功能对于青少年同理心的塑造和调控个体情绪, 避免和减少内外化问题行为具有积极作用。因此, 改善家庭功能, 为青少年正向成长提供良好的生活环境, 并注重培养青少年的共情能力, 提高青少年情绪抑制和表达能力可以有效预防或减少内外化问题行为的发生。

* * *

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参 考 文 献

- [1] 张大均, 朱政光, 刘广增, 等. 青少年社会支持与问题行为的关系: 心理素质和自尊的链式中介作用. *西南大学学报(社会科学版)*, 2019, 45(1): 99-104. doi: [10.13718/j.cnki.xdsk.2019.01.012](https://doi.org/10.13718/j.cnki.xdsk.2019.01.012).
ZHANG D J, ZHU Z G, LIU G Z, *et al.* The relationship between social support and problem behavior in adolescents: the chain mediating role of psychological quality and self-esteem. *J Southwest Univ (Soci Sci Edi)*, 2019, 45(1): 99-104. doi: [10.13718/j.cnki.xdsk.2019.01.012](https://doi.org/10.13718/j.cnki.xdsk.2019.01.012).
- [2] 赵光金. 中国青年发展报告. 北京: 社会科学文献出版社, 2018.
ZHAO G J. *China Youth Development Report*. Beijing: Social Sciences Academic Press, 2018.
- [3] 常淑敏, 张丽娅, 王玲晓. 发展资源在减少青少年外化问题行为中的累积效应及关系模式. *心理学报*, 2019, 41(11): 1244-1255. doi: [10.3724/SP.J.1041.2019.01244](https://doi.org/10.3724/SP.J.1041.2019.01244).
CHANG S M, ZHANG L Y, WANG L X. The cumulative effects and relationship model of developmental assets used to reduce adolescent externalizing behaviors. *Acta Psychologica Sinica*, 2019, 41(11): 1244-1255. doi: [10.3724/SP.J.1041.2019.01244](https://doi.org/10.3724/SP.J.1041.2019.01244).
- [4] GONG X, ZHANG L L, ZHOU J H, *et al.* Maternal childhood maltreatment and adolescent internalizing problems: the mediating role of maternal depressive symptoms and offspring childhood maltreatment. *J Youth Adolesc*, 2023, 53: 159-170. doi: [10.1007/s10964-023-01877-5](https://doi.org/10.1007/s10964-023-01877-5).
- [5] VOLCHENKOVA V E, KUZNETSOVA V E, SANNIKOVA P Y, *et al.* Analysis of coping strategies of adolescents with delinquent behavior as a factor of improving psychological and educational support for students. *Sci Educ Today*, 2020, 1(5). doi: [10.15293/2658-6762.2005.05](https://doi.org/10.15293/2658-6762.2005.05).
- [6] HUANG X Q, HU L L, YAO Z D, *et al.* Family functioning and adolescent depression: a moderated mediation model of self-esteem and peer relationships. *Front Psychol*, 2022, 13: 962147. doi: [10.3389/fpsyg.2022.962147](https://doi.org/10.3389/fpsyg.2022.962147).
- [7] SHEK D T L. Family functioning and psychological wellbeing, school adjustment, and problem behavior in Chinese adolescents with and without economic disadvantage. *J Genet Psychol*, 2002, 163(4): 497-502. doi: [10.1080/00221320209598698](https://doi.org/10.1080/00221320209598698).
- [8] 迟新丽, 陈诗韵, 王秋英, 等. 家庭功能对青少年问题行为的影响: 有调节的中介效应. *中国临床心理学杂志*, 2021, 29(2): 246-251. doi: [10.16128/j.cnki.1005-3611.2021.02.006](https://doi.org/10.16128/j.cnki.1005-3611.2021.02.006).
CHI X L, CHEN S Y, WANG Q Y, *et al.* Effect of family functioning on behavior problem in adolescents: a moderated mediating effect. *Chin J Clin Psychol*, 2021, 29(2): 246-251. doi: [10.16128/j.cnki.1005-3611.2021.02.006](https://doi.org/10.16128/j.cnki.1005-3611.2021.02.006).
- [9] BOELE S, Van der GRAAFF J, De WIED M, *et al.* Linking parent-child and peer relationship quality to empathy in adolescence: a multilevel

- meta-analysis. *J Youth Adolesc*, 2019, 48: 1033–1055. doi: [10.1007/s10964-019-00993-5](https://doi.org/10.1007/s10964-019-00993-5).
- [10] 张晓霞. 家庭社会经济地位、家庭功能及教养方式对自闭症儿童共情的影响. 重庆: 重庆师范大学, 2022. doi: [10.27672/d.cnki.gcsfc.2020.000442](https://doi.org/10.27672/d.cnki.gcsfc.2020.000442).
- ZHANG X X. Effects of family socioeconomic status, family function and parenting style on empathy of children with autism. Chongqing: Chongqing Normal University, 2022.
- [11] 陈慧, 何婷, 唐远琼, 等. 共情与青少年内外化问题的关系及影响机制. *心理发展与教育*, 2021, 37(3): 439–446. doi: [10.16187/j.cnki.issn1001-4918.2021.03.15](https://doi.org/10.16187/j.cnki.issn1001-4918.2021.03.15).
- CHEN H, HE T, TANG Y Q, *et al*. The associations and pathways between empathy and adolescent internalizing and externalizing problems. *Psychol Develop Edu*, 2021, 37(3): 439–446. doi: [10.16187/j.cnki.issn1001-4918.2021.03.15](https://doi.org/10.16187/j.cnki.issn1001-4918.2021.03.15).
- [12] MATHEWS B L, KOEHN A J, ABTAHI M M, *et al*. Emotional competence and anxiety in childhood and adolescence: a meta-analytic review. *Clin Child Fam Psychol Rev*, 2016, 19(2): 162–184. doi: [10.1007/s10567-016-0204-3](https://doi.org/10.1007/s10567-016-0204-3).
- [13] 李曦, 张雪凤, 冯啸, 等. 家庭功能对同伴关系的影响: 共情和理智调控情绪能力的多重中介效应. *中国临床心理学杂志*, 2018, 26(1): 158–161. doi: [10.16128/j.cnki.1005-3611.2018.01.035](https://doi.org/10.16128/j.cnki.1005-3611.2018.01.035).
- LI X, ZHANG X F, FENG X, *et al*. Family functioning and peer relationship: multiple mediating roles of empathy and emotional regulation. *Chin J Clin Psychol*, 2018, 26(1): 158–161. doi: [10.16128/j.cnki.1005-3611.2018.01.035](https://doi.org/10.16128/j.cnki.1005-3611.2018.01.035).
- [14] 岳楠. 青少年情绪管理能力现状及培养对策研究. *北京青年研究*, 2023, 32(3): 108–112. doi: [10.3969/j.issn.1008-4002.2023.03.014](https://doi.org/10.3969/j.issn.1008-4002.2023.03.014).
- YUE N. A study on the current situation and training countermeasures of adolescent emotional management ability. *Beijing Youth Res*, 2023, 32(3): 108–112. doi: [10.3969/j.issn.1008-4002.2023.03.014](https://doi.org/10.3969/j.issn.1008-4002.2023.03.014).
- [15] 唐杰. 培养青少年情绪管理能力, 预防自我伤害行为. *中国学校卫生*, 2019, 40(7): 964–967. doi: [10.16835/j.cnki.1000-9817.2019.07.002](https://doi.org/10.16835/j.cnki.1000-9817.2019.07.002).
- TANG J. Emotional regulation and self-injury behavior among adolescents. *Chin J Sch Health*, 2019, 40(7): 964–967. doi: [10.16835/j.cnki.1000-9817.2019.07.002](https://doi.org/10.16835/j.cnki.1000-9817.2019.07.002).
- [16] 陈超. 人格特质对留守经历大学生人际交往能力的影响. 兰州: 西北师范大学, 2021.
- CHEN C. The influence of personality traits on interpersonal competence of left-behind experience college students. Lanzhou: Northwest Normal University, 2021.
- [17] ZHAO L, SHEK D T L, ZOU K, *et al*. Cohort profile: Chengdu Positive Child Development (CPCD) survey. *Int J Epidemiol*, 2022, 51(3): e95–e107. doi: [10.1093/ije/dyab237](https://doi.org/10.1093/ije/dyab237).
- [18] 黄亦明, 刘金珍, 徐雁, 等. Achenbach儿童行为量表(CBCL)在孤独症谱系障碍儿童中的应用研究. *中国社会医学杂志*, 2022, 39(5): 571–575.
- HUANG Y M, LIU J Z, XU Y, *et al*. Application of Achenbach Child Behavior Scale (CBCL) in children with autism spectrum disorder. *Chin J Soc Med*, 2022, 39(5): 571–575.
- [19] SHEK D T L, ZHAO L, DOU D, *et al*. The impact of positive youth development attributes on posttraumatic stress disorder symptoms among Chinese adolescents under COVID-19. *J Adolesc Health*, 2021, 4(68): 676–682. doi: [10.1016/j.jadohealth.2021.01.011](https://doi.org/10.1016/j.jadohealth.2021.01.011).
- [20] SIU A M, SHEK D T. Validation of the interpersonal reactivity index in a Chinese context. *Res Soc Work Pract*, 2005, 15(2): 118–126. doi: [10.1177/1049731504270384](https://doi.org/10.1177/1049731504270384).
- [21] SHEK D T L, SIU A M H, LEE T Y. The Chinese Positive Youth Development Scale: a validation study. *Res Soc Work Pract*, 2007, 17(3): 380–391. doi: [10.1177/1049731506296196](https://doi.org/10.1177/1049731506296196).
- [22] 洪彬雪, 宋戈扬, 刘敏, 等. 初中学生家庭功能对自杀相关行为的影响: 抑郁的中介作用. *四川大学学报(医学版)*, 2022, 53(5): 866–871. doi: [10.12182/20220960504](https://doi.org/10.12182/20220960504).
- HONG B X, SONG G Y, LIU M, *et al*. Effect of family function on suicide-related behaviors of junior middle school students: the mediating effect of depression. *J Sichuan Univ (Med Sci)*, 2022, 53(5): 866–871. doi: [10.12182/20220960504](https://doi.org/10.12182/20220960504).
- [23] 王恩娜, 张俊杰, 黄巧敏, 等. 家庭功能与青少年问题行为的关系: 一项交叉滞后研究. *中国临床心理学杂志*, 2022, 30(4): 794–801. doi: [10.16128/j.cnki.1005-3611.2022.04.009](https://doi.org/10.16128/j.cnki.1005-3611.2022.04.009).
- WANG E N, ZHANG J J, HUANG Q M, *et al*. The relationship between family functioning and behavior problems in adolescents: a cross-lagged study. *Chin J Clin Psychol*, 2022, 30(4): 794–801. doi: [10.16128/j.cnki.1005-3611.2022.04.009](https://doi.org/10.16128/j.cnki.1005-3611.2022.04.009).
- [24] 王秋英, 黄巧敏, 刘晓凤, 等. 家庭功能对青少年早期外化问题行为的影响: 心理韧性的中介作用和性别的调节作用. *心理与行为研究*, 2020, 18(5): 659–665.
- WANG Q Y, HUANG Q M, LIU X F, *et al*. The association between family functioning and externalizing behavior in early adolescents: the mediating effect of resilience and moderating effect of gender. *Stud Psychol Behav*, 2020, 18(5): 659–665.
- [25] 刘晓凤, 王秋英, 迟新丽, 等. 家庭功能对青少年抑郁的影响: 一项有调节的中介效应. *中国临床心理学杂志*, 2020, 28(4): 688–693. doi: [10.16128/j.cnki.1005-3611.2020.04.008](https://doi.org/10.16128/j.cnki.1005-3611.2020.04.008).
- LIU X F, WANG Q Y, CHI X L, *et al*. Family function and depression in adolescents: a moderated mediation model. *Chin J Clin Psychol*, 2020, 28(4): 688–693. doi: [10.16128/j.cnki.1005-3611.2020.04.008](https://doi.org/10.16128/j.cnki.1005-3611.2020.04.008).
- [26] 胡蕊, 彭丽莉, 洪彬雪, 等. 新冠疫情期间家庭环境对初中生非自杀性自伤的影响: 抑郁的中介作用. *四川大学学报(医学版)*, 2023, 54(2): 374–379. doi: [10.12182/20230160106](https://doi.org/10.12182/20230160106).
- HU R, PENG L L, PENG B X, *et al*. Effect of family environment on non-suicidal self-injury among middle school students during the COVID-19 epidemic: the mediating role of depression. *J Sichuan Univ (Med Sci)*, 2023, 54(2): 374–379. doi: [10.12182/20230160106](https://doi.org/10.12182/20230160106).
- [27] SHEK D T L, LEUNG K H, DOU D, *et al*. Family functioning and adolescent delinquency in mainland china: positive youth development attributes as a mediator. *Front Psychiatry*, 2022, 13: 883439. doi: [10.3389/fpsy.2022.883439](https://doi.org/10.3389/fpsy.2022.883439).
- [28] TIM S, GERALD S. Multilevel analysis of individual, household, and community factors influencing child growth in Nepal. *BMC Pediatr*, 2019, 19(1): 91. doi: [10.1186/s12887-019-1469-8](https://doi.org/10.1186/s12887-019-1469-8).

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