

Effectiveness of Mindfulness Intervention on Emotional Stability and Parenting Stress Among Parents of Adolescents: A Quasi-Experimental Study

Praphulla Shantilal Naik¹, Bahubali Jinnappa Geddugol^{*2}, Narayan Krishnaji Ghorpade³, Akkamahadevi Subbaiah Bergeri⁴, Samson Wilson Kamble⁵, Shefali Samson Daruwala⁶, Milka Devraj⁷

¹<https://orcid.org/0009-0007-6477-7803>

²<https://orcid.org/0000-0002-2282-5818>

³<https://orcid.org/0000-0003-2508-6368>

⁴<https://orcid.org/0009-0000-1927-0586>

⁵<https://orcid.org/0000-0002-3581-0033>

⁶<https://orcid.org/0009-0001-0614-8378>

⁷<https://orcid.org/0009-0005-9704-4636>

^{*}Corresponding author affiliation & address

Associate Professor & Head of the Department Psychiatric Nursing, Bharati Vidyapeeth (Deemed to be University) College of Nursing Sangli, Sangli Miraj Road, Sangli 416414, Maharashtra State India.

ABSTRACT

Introduction: Adolescence involves substantial biological, emotional, cognitive, and psychosocial changes that may increase parenting demands and parental stress. Mindfulness-based interventions may promote emotional regulation, adaptive coping, and healthier responses to parenting challenges. **Objective:** To assess the effect of a structured mindfulness intervention on emotional stability and parental stress among parents of adolescents. **Material and Methods:** A quantitative quasi-experimental pre-test/post-test control-group design was used in selected community areas of Sangli-Miraj-Kupwad Municipal Corporation, Maharashtra, India. A total of 88 parents of adolescents aged 13 to 17 years were selected through non-probability convenience sampling, with 44 participants each in the experimental and control groups. Data were collected using a demographic questionnaire, an investigator-developed Emotional Stability Scale, and the Parental Stress Scale [PSS]. The experimental group received a structured 21-day mindfulness intervention based on Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy principles, incorporating breathing awareness, body scanning, emotional regulation, mindful communication, self-compassion, and mindful speaking and listening. The control group received no intervention. Data were analysed using descriptive statistics, paired and independent samples t-tests, and Pearson's correlation. **Results:** In the experimental group, mean emotional stability increased significantly from 31.00 (SD=4.120) to 38.20 (SD=2.906) ($t=13.496$, $p<0.001$), while mean parental stress decreased from 43.20 (SD=6.808) to 23.84 (SD=1.791) ($t=-20.167$, $p<0.001$). At post-test, emotional stability was significantly higher in the experimental group than in the control group (38.20 ± 2.906 vs. 28.02 ± 3.015 ; $t=16.127$, $p<0.001$), while parental stress was significantly lower (23.84 ± 1.791 vs. 39.39 ± 4.205 ; $t=-22.561$, $p<0.001$). Emotional stability was inversely correlated with parental stress at baseline ($r=-0.282$, $p=0.008$). **Conclusion:** The structured mindfulness intervention was associated with improved emotional stability and reduced parental stress. Brief mindfulness-based interventions may be a feasible component of community and family mental health programmes. Further research using randomised designs, larger samples, validated multidimensional measures, and longer follow-up is recommended.

Keywords: Mindfulness Intervention, Emotional Stability, Parenting Stress, Parents of Adolescents, MBSR, MBCT, Mental Health.

INTRODUCTION

Parenting is a critical responsibility that plays a central role in shaping the emotional, psychological, and social development of children. Among all life stages, parenting during adolescence is often considered the most challenging. Adolescence is marked by rapid biological growth, identity formation, emotional fluctuations, and a strong desire for autonomy. During this period, adolescents typically spend less time with family, develop closer peer relationships, and may challenge parental authority. These developmental changes can significantly increase parental stress and strain the parent-child relationship.¹

Parenting stress is defined as the distress experienced when the demands of parenting exceed a parent's coping resources. Elevated levels of stress have been associated with impaired parenting practices, harsh discipline, reduced warmth, and increased risk of adolescent emotional and behavioral difficulties.² Emotional stability, therefore, becomes an essential quality for parents, as it enables them to maintain composure, regulate emotions, and respond constructively in challenging family interactions.

In recent years, mindfulness has emerged as a promising non-pharmacological intervention to address stress and improve well-being. Mindfulness is defined as the practice of paying attention to the present moment in a purposeful and non-judgmental way.³ Mindfulness-based interventions, such as Mindfulness-

Based Stress Reduction (MBSR), have consistently been shown to reduce stress, improve emotional regulation, and strengthen resilience in adults.⁴

Several intervention studies support the role of mindfulness in parenting. A randomized controlled trial (RCT) known as Parenting Mindfully found that highly stressed mothers of adolescents who received mindfulness training showed significant improvements in parental mindfulness, reduced parenting stress, and enhanced emotional awareness in parenting. Importantly, relationship quality with their adolescents also improved, with medium to large effect sizes observed.⁵ Similarly, another RCT evaluating online mindful parenting training showed improvements in parental depression, anxiety, and over-reactive discipline, though parenting stress reduction appeared more gradual.⁶

MATERIALS AND METHODS

Study Design and Setting

A quantitative, quasi-experimental pre-test/post-test control-group design was adopted to evaluate the effect of a structured mindfulness intervention on emotional stability and parental stress among parents of adolescents. The study was conducted in selected community areas, community halls and nearby Primary Health Centres within Sangli–Miraj–Kupwad Municipal Corporation, Maharashtra, India.

Participants and Sampling

The target population comprised parents of adolescents aged 13–17 years residing in the selected community areas. Parents were eligible if they had at least one adolescent child aged 13–17 years, were willing to participate, provided written informed consent, and could understand Marathi or Hindi. Both mothers and fathers were eligible. Participants were required to be available throughout the intervention and data-collection period.

Parents who were already practising mindfulness, meditation or other structured stress-management techniques, had undergone formal mindfulness training, were taking psychotropic medication, or had severe psychiatric disorders or cognitive impairment were excluded. Parents unable to participate in the intervention because of illness or other personal reasons, or those who withdrew consent, were also excluded.

A total of 88 eligible parents were recruited through non-probability convenience sampling, with 44 participants in the experimental group and 44 in the control group. The final sample exceeded the initially estimated sample size of 82 participants (41 per group), which was calculated for a two-group mean comparison assuming an alpha level of 0.05, 80% statistical power and an effect size of 0.44. No attrition was reported during the main study. As allocation was non-randomised, the groups were treated as experimental and control groups rather than randomised treatment arms.

Mindfulness Intervention

The structured mindfulness intervention was developed based on principles of Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT). The intervention was delivered over 21 days through three structured sessions, each lasting approximately 35–45 minutes. The investigator had completed certified training in MBSR and MBCT before delivering the intervention.

The first session introduced the concept of mindfulness, breathing awareness and the three-minute breathing space. The second session focused on body-scan meditation, emotional regulation and understanding the relationship between thoughts, emotions and behaviour. The third session addressed mindful communication, self-compassion, and mindful speaking and listening. Participants were encouraged to apply these mindfulness practices to everyday parenting situations and stressful parent–adolescent interactions. The control group received no mindfulness intervention during the study period and was offered the programme after completion of the post-test assessment.

Study Instruments

Data were collected using three instruments:

1. Demographic Data Sheet: A structured questionnaire was used to collect relevant demographic and family-related information concerning the parent and adolescent, including parental age, family type, socioeconomic characteristics, and selected adolescent characteristics.

2. Parent's Emotional Stability Scale: Emotional stability was assessed using a 15-item investigator-developed scale. Each item was rated on a three-point response scale (never, sometimes and always), with total scores ranging from 15 to 45; higher scores indicated greater emotional stability. Content validity was established through expert evaluation, with a reported scale-level content validity index average (S-CVI/Ave) of 0.97 and universal agreement (S-CVI/UA) of 0.66. Pilot testing demonstrated good internal consistency (Cronbach's $\alpha=0.905$).

3. Parental Stress Scale [PSS]: Parental stress was measured using the 18-item Parental Stress Scale developed by Berry and Jones. Items are rated on a five-point Likert scale, with higher total scores indicating greater parental stress. In the present study, the scale demonstrated high internal consistency during reliability testing (Cronbach's $\alpha=0.918$).

Data Collection Procedure

Prior permission was obtained from the Medical Health Officer, Sangli–Miraj–Kupwad Municipal Corporation, and the concerned Primary Health Centres. Eligible parents were informed about the study, and written informed consent was obtained. Baseline assessment using the study instruments required approximately 30–35 minutes. The experimental group subsequently received the structured mindfulness intervention over 21 days, followed by post-test assessment in both groups using the same outcome measures. Confidentiality and anonymity were maintained, participation was voluntary, and participants could withdraw without consequence.

Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee of Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli. Written informed consent was obtained from all participants before data collection. Participant confidentiality and anonymity were maintained throughout the study.

Statistical Analysis

Data were coded, tabulated, and analysed using SPSS version 27. Descriptive and inferential statistical methods were applied as appropriate, with statistical significance set at $p < 0.05$.

RESULTS

The results of the were organized and presented under the following sections:

Section I: Analysis of demographic variables of parents and adolescents

SEC-1: A: Demographic Variables of Parents

**Table 1.1: Frequency and percentage distribution of demographic variables of parents
(n=44+44)**

SN	Variable	Groups	Experimental		Control	
			f	%	f	%
1	Age (in years)	34-37	15	34.1	21	47.7
		38-41	19	43.2	20	45.5
		42-45	10	22.7	03	6.8
2	Occupation Category	Professionals	02	4.5	00	00
		Technicians and Associate Professionals	00	00	02	4.5
		Clerks	02	4.5	01	2.3
		Skilled Workers and Shop/Market Sales Workers	08	18.2	06	13.6
		Skilled Agricultural and Fishery Workers	06	13.6	06	13.6
		Craft and Related Trade Workers	05	11.4	10	22.7
		Plant and Machine Operators and Assemblers	05	11.4	04	9.1

		Elementary Occupation	09	20.5	05	11.4
		Unemployed	07	15.9	10	22.7
3	Educational Level	Profession or Honors	01	2.3	01	2.3
		Graduate or Postgraduate	09	20.5	03	6.8
		Intermediate or Diploma	00	00	01	2.3
		High School Certificate	11	25.0	16	36.4
		Middle School Certificate	14	31.8	11	25.0
		Primary School Certificate	06	13.6	04	9.1
		illiterate	03	6.8	08	18.2
4	Monthly Family Income (in Rupees)	79,756 – 1,59,585	04	9.1	00	00
		59,795 – 79,755	03	6.8	01	2.3
		39,830 – 59,794	00	0	01	2.3
		23,870 – 39,829	03	6.8	05	11.4
		7,989 – 23,869	24	54.5	26	59.1
		0 – 7,988	10	22.7	11	25.0
5	Socioeconomic class (Kuppuswamy Socioeconomic Status Scale)	Upper Middle (II)	10	22.7	03	6.8
		Lower Middle (III)	03	6.8	10	22.7
		Upper Lower (IV)	27	61.4	23	52.3
		Lower (V)	04	9.1	08	18.2
6	Type of Family	Nuclear	34	77.3	33	75.0
		Joint	10	22.7	10	22.7
		Extended	00	00	01	2.3
7	Total number of children (including adolescent)	One	12	27.3	24	54.5
		Two	28	63.6	17	38.6
		More than Two	04	9.1	3	6.8
8	Previous exposure to mindfulness or meditation practices	No	44	100	44	100
9	Current stress- relief practices	No	44	100	44	100

The experimental and control groups demonstrated overall comparable sociodemographic characteristics. Both groups were predominantly aged 38–41 years, belonged to nuclear families and the upper-lower socioeconomic class, and had similar distributions across monthly family income and educational levels. Importantly, 100% of participants in both groups had no previous exposure to mindfulness/meditation and did not practise any current stress-relief techniques, indicating good baseline comparability for the intervention study.

SEC-1: B: Demographic Variables of Adolescents

Table 1.2: Frequency and Percentage Distribution of Demographic Variables of Adolescents (n = 44 + 44)

SN	Variable	Groups	Experimental		Control	
			f	%	f	%
1	Age of your adolescent child	13	10	22.7	11	25.0
		14	12	27.3	17	38.6
		15	06	13.6	04	9.1
		16	09	20.5	10	22.7
		17	07	15.9	02	4.5
2	Gender of your adolescent child	Male	28	63.6	28	63.6
		Female	16	36.4	16	36.4
3	Class/grade of study of the	7 th	10	22.7	11	25.0

	adolescent	8 th	12	27.3	17	38.6
		9 th	06	13.6	4	9.1
		10 th	09	20.5	10	22.7
		11 th	07	15.9	02	4.5
4	Type of school attended by the adolescent	Government	32	72.7	18	40.9
		Private	12	27.3	26	59.1
5	Academic performance of adolescent (based on last examination report)	Excellent	14	31.8	23	52.3
		Good	30	68.2	21	47.7
6	Presence of behavioral or emotional problems in the adolescent	No	44	100.0	44	100.0
7	Daily screen time of the adolescent (TV, mobile, computer, etc.)	Less than 1 hour	12	27.3	12	27.3
		1–2 hours	28	63.6	31	70.5
		2–4 hours	04	9.1	01	2.3
8	Participation of the adolescent in extracurricular activities	Yes	06	13.6	18	40.9
		No	38	86.4	26	59.1
9	Parent–child relationship as perceived by the parent	Very good	22	50.0	22	50.0
		Good	22	50.0	22	50.0
10	Number of siblings of the adolescent	None	11	25.0	24	54.5
		One	28	63.6	17	38.6
		Two	01	2.3	02	4.5
		More than two	04	9.1	01	2.3

The experimental and control groups showed broad comparability in adolescent characteristics. In both groups, most adolescents were 14 years old, male (63.6%), and studying in 7th–10th grades. All adolescents had no reported behavioural or emotional problems (100%), and the parent–child relationship was rated as very good or good equally in both groups (50% each).

Differences were observed in type of school, with more adolescents attending government schools in the experimental group (72.7%) compared with the control group (40.9%), and in extracurricular participation, which was higher in the control group (40.9% vs. 13.6%). Most adolescents in both groups had 1–2 hours of daily screen time (63.6% vs. 70.5%). Academic performance was predominantly good in the experimental group (68.2%) and excellent in the control group (52.3%). Overall, the groups were reasonably comparable, although some differences were present in school type, extracurricular participation, academic performance, and number of siblings.

Section II: Assessment of Emotional Stability and Parenting Stress Before and After Mindfulness Intervention Among Experimental and Control Groups

Table No. 2: Levels of Emotional Stability Before and After Mindfulness Intervention (N = 44)

Group	Level of Emotional Stability	Before Intervention f (%)	After Intervention f (%)
Experimental Group	Moderate	38 (86.4)	03 (6.8)
	High	06 (13.6)	41 (93.2)
Control Group	Low	05 (11.4)	06 (13.6)
	Moderate	36 (81.8)	37 (84.1)
	High	03 (6.8)	01 (2.3)

The findings show a marked improvement in emotional stability in the experimental group following the mindfulness intervention. Before the intervention, 86.4% of parents had moderate emotional stability and 13.6% had high emotional stability. After the intervention, the proportion with high emotional stability increased to 93.2%, while moderate emotional stability decreased to 6.8%. In the control group, emotional stability remained largely unchanged, with moderate stability increasing from 81.8% to 84.1% and high stability decreasing from 6.8% to 2.3%. Thus, the findings indicate a substantial improvement in emotional stability among parents who received the mindfulness intervention.

Table No. 3: Levels of Parenting Stress Before and After Mindfulness Intervention
(N = 44)

Group	Level of Parenting Stress	Before Intervention f (%)	After Intervention f (%)
Experimental Group	Low Stress	15 (34.1)	44 (100)
	Moderate Stress	29 (65.9)	00 (0.0)
Control Group	Low Stress	33 (75.0)	32 (72.7)
	Moderate Stress	11 (25.0)	12 (27.3)

The findings show a marked reduction in parenting stress in the experimental group following the mindfulness intervention. Before the intervention, 65.9% of parents had moderate stress and 34.1% had low stress. After the intervention, all parents (100%) had low stress, with none remaining in the moderate-stress category. In contrast, the control group showed minimal change, with low stress decreasing slightly from 75.0% to 72.7% and moderate stress increasing from 25.0% to 27.3%. Overall, the findings indicate a substantial reduction in parenting stress among parents who received the mindfulness intervention.

Section III: Post-Intervention Comparison of Emotional Stability and Parenting Stress Between Experimental and Control Groups

Table No. 4: Comparison of Emotional Stability Scores Between Experimental and Control Groups After Intervention
(N = 88)

Group	Mean	SD	df	t-value	p-value
Experimental Group	38.20	2.906	86	16.127	0.000
Control Group	28.02	3.015			

The post-intervention comparison showed a significant difference in emotional stability between the experimental and control groups. The experimental group had a higher mean emotional stability score (38.20 ± 2.906) compared with the control group (28.02 ± 3.015). The difference was statistically significant ($t = 16.127$, $df = 86$, $p < 0.001$), indicating significantly greater improvement in emotional stability among parents who received the mindfulness intervention.

Table No. 5: Comparison of Parenting Stress Scores Between Experimental and Control Groups After Intervention
(N = 88)

Group	Mean	SD	df	t-value	p-value
Experimental Group	23.84	1.791	86	-22.561	0.000
Control Group	39.39	4.205			

The post-intervention comparison revealed a significant difference in parenting stress between the experimental and control groups. The experimental group had a lower mean parenting stress score (23.84 ± 1.791) compared with the control group (39.39 ± 4.205). The difference was statistically significant ($t = -22.561$, $df = 86$, $p < 0.001$), indicating a significantly greater reduction in parenting stress among parents who received the mindfulness intervention.

Section IV: Pre-Test and Post-Test Comparison of Emotional Stability and Parenting Stress Within Experimental and Control Groups

Table No. 6: Comparison of Emotional Stability Scores Before and After Intervention Within Experimental and Control Groups (N = 88)

Group	Intervention	Mean	SD	df	t-value	p-value
Experimental Group	Before	31.00	4.120	43	13.496	0.000
	After	38.20	2.906			
Control Group	Before	28.86	3.664	43	4.042	0.000
	After	28.02	3.015			

The post-intervention comparison revealed a significant difference in parenting stress between the experimental and control groups. The experimental group had a lower mean parenting stress score (23.84 ± 1.791) than the control group (39.39 ± 4.205). The difference was statistically significant ($t = -22.561$, $df = 86$, $p < 0.001$), demonstrating significantly lower parenting stress among parents who received the mindfulness intervention.

Table No. 7: Comparison of Parenting Stress Scores Before and After Intervention Within Experimental and Control Groups (N = 88)

Group	Intervention	Mean	SD	df	t-value	p-value
Experimental Group	Before	43.20	6.808	43	-20.167	0.000
	After	23.84	1.791			
Control Group	Before	38.52	4.737	43	-2.492	0.017
	After	39.39	4.205			

The comparison of parenting stress scores before and after the intervention showed a statistically significant reduction in the experimental group. The mean parenting stress score decreased from 43.20 ± 6.808 before the intervention to 23.84 ± 1.791 after the intervention. This change was statistically significant ($t = -20.167$, $df = 43$, $p < 0.001$), indicating a substantial reduction in parenting stress following the mindfulness intervention.

In the control group, the mean parenting stress score increased slightly from 38.52 ± 4.737 before the intervention to 39.39 ± 4.205 after the intervention. This change was also statistically significant ($t = -2.492$, $df = 43$, $p = 0.017$), but it represented an increase rather than a reduction in parenting stress. Overall, the findings demonstrate a marked reduction in parenting stress in the experimental group compared with the control group following the intervention. Thus, null hypothesis was rejected and research hypothesis was accepted.

Section V: Relationship Between Pre-Intervention Emotional Stability and Parenting Stress

**Table No. 8: Relationship Between Emotional Stability and Parenting Stress Before Intervention
(N = 88)**

Variables	Mean	SD	r-value	p-value
Emotional Stability	29.93	4.022	-0.282	0.008
Parenting Stress	40.86	6.288		

Before the intervention, the mean emotional stability score among the participants was 29.93 ± 4.022 , while the mean parenting stress score was 40.86 ± 6.288 . A statistically significant negative correlation was observed between emotional stability and parenting stress ($r = -0.282$, $p = 0.008$). This indicates that higher emotional stability was associated with lower parenting stress among parents of adolescents before the intervention.

Section VI: Association Between Pre-Intervention Emotional Stability, Parenting Stress and Selected Demographic Variables

**Table No. 9: Association Between Emotional Stability and Selected Demographic Variables
(N = 88)**

Variables Showing Significant Association	χ^2 value	p-value
Educational Level	26.918	0.008
Monthly Family Income	32.180	0.000
Type of Family	17.599	0.001

The association between emotional stability and selected demographic variables was assessed using the chi-square test. Emotional stability showed a statistically significant association with educational level ($\chi^2 = 26.918$, $df = 12$, $p = 0.008$), monthly family income ($\chi^2 = 32.180$, $df = 10$, $p < 0.001$), and type of family ($\chi^2 = 17.599$, $df = 4$, $p = 0.001$).

No statistically significant association was observed between emotional stability and parents' age, occupation, or number of children ($p > 0.05$). Previous exposure to mindfulness/meditation and current stress-relief practices were also not associated with emotional stability, as all participants reported no previous exposure or current practice. Among adolescent-related characteristics, age, gender, grade/class, type of school, academic performance, daily screen time, participation in extracurricular activities, parent-child relationship, and number of siblings were not significantly associated with parents' emotional stability ($p > 0.05$). Behavioural or emotional problems could not demonstrate an association because none of the adolescents were reported to have such problems.

**Table No. 10: Association Between Parenting Stress and Selected Demographic Variables
(N = 88)**

Variables Showing Significant Association	χ^2 value	p-value
Academic Performance of Adolescent	8.744	0.003

Parenting stress showed a statistically significant association with the academic performance of the adolescent ($\chi^2 = 8.744$, $df = 2$, $p = 0.003$). No significant association was observed with the other selected demographic variables of parents or adolescents ($p > 0.05$).

DISCUSSION

The present study indicates that mindfulness intervention may be beneficial in supporting emotional stability and reducing parenting stress among parents of adolescents. Parenting during adolescence can

involve increased emotional and behavioural demands, potentially contributing to parental stress.^{1,2} Mindfulness practices promote present-moment awareness, non-judgemental acceptance and emotional regulation, which may help parents respond more constructively to parenting challenges.^{3,4}

The significant improvement in emotional stability observed in the experimental group may be related to the intervention's focus on breathing awareness, body scanning, emotional regulation and mindful communication. These practices can enhance awareness of emotional reactions and reduce automatic responses to stressful situations.^{3,4} The finding is consistent with previous research reporting beneficial effects of parenting-focused mindfulness interventions on parental psychological well-being.^{5,6} The substantial reduction in parenting stress further supports the usefulness of mindfulness as a supportive approach for parents. Mindful parenting emphasises awareness of one's thoughts, emotions and responses during parent-child interactions, potentially reducing reactive and stress-driven parenting behaviours.^{7,8,10,11} The present findings are therefore in agreement with previous evidence demonstrating reductions in parenting stress following mindfulness-based interventions.

A significant negative correlation between emotional stability and parenting stress was also identified ($r = -0.282$, $p = 0.008$), suggesting that parents with greater emotional stability tended to experience lower parenting stress. This relationship is consistent with the principles of mindful parenting, which emphasise parental awareness, emotional regulation and responsive parent-child interactions.^{12,13,14} However, the modest correlation indicates that parenting stress is influenced by multiple factors beyond emotional stability.

The observed associations of emotional stability with educational level, monthly family income and type of family, and of parenting stress with adolescent academic performance, suggest that parental and family circumstances may also contribute to these outcomes. Other selected demographic variables were not significantly associated with the study outcomes ($p > 0.05$). From a nursing perspective, these findings support the incorporation of brief mindfulness-based practices into community mental health, adolescent health and parent-guidance programmes. Such interventions may offer nurses a practical strategy to strengthen parental emotional regulation and coping. Nevertheless, the findings should be interpreted considering the quasi-experimental design, convenience sampling, relatively small sample and lack of long-term follow-up. Future studies using larger randomised samples and longer follow-up are warranted to determine the sustainability of these effects.

CONCLUSION

The present study concluded that mindfulness intervention was effective in improving emotional stability and reducing parenting-related stress among parents of adolescents. The results demonstrated that parents who participated in the mindfulness intervention program showed significant improvements in emotional stability and experienced lower levels of parenting stress compared to parents in the control group. Mindfulness practices helped parents develop greater awareness of their thoughts and emotions, respond more calmly to stressful situations, and strengthen their relationship with their adolescents.

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