



Research Article

The mediating role of gender in adolescents' psychological resilience, emotion regulation skills, and humor styles¹

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Abstract

In this study, the relationship between psychological resilience and emotion regulation skills in adolescents was examined, and the impact of humor skills on these factors was revealed. The findings explain which factors affect an individual's psychological resilience and emotion regulation skills; additionally, these findings demonstrate that humor styles have an impact on psychological resilience and emotion regulation. The study was conducted with adolescent students aged 13-14 attending public and private schools. To obtain data, a demographic information form, the Child and Youth Psychological Resilience Scale, the Humor Styles Questionnaire for Children, and the Emotion Regulation Scale for Adolescents were used. For normality of research variables, skewness and kurtosis values were calculated, and to observe differences between variables, t-tests and one-way ANOVA were applied. Tukey HSD was used to identify the source of the differences, and Pearson correlation was used to examine relationships between variables. The literature review indicates that emotion regulation skills in adolescents are also related to humor skills. In our study, it was found that male students scored significantly higher in the contextual-cultural dimension, a sub-dimension of psychological resilience. For emotion regulation skills, the internal dysfunctional emotion regulation dimension was found to be higher in female students. Male students scored significantly higher in affiliative and aggressive humor styles compared to female students. Significant positive relationships were found between emotion regulation and psychological resilience, and it was observed that functional emotion regulation skills have a positive effect on psychological resilience. Finally, self-enhancing humor style was found to play a mediating role in the relationship between psychological resilience and emotion regulation skills. The question of whether there is a relationship between psychological resilience and emotion regulation, as well as the unknown impact of humor styles on these factors, highlights the importance of researching these concepts.

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Introduction

The psychological resilience characteristics of adolescents play an important role in various stages of their lives. Psychological resilience enhances adolescents' ability to cope with difficulties and helps them perform better in stressful situations (Masten & Cicchetti, 2016). Psychological resilience is the capacity to overcome adversities, strengthen oneself, and adapt to life. In line with positive psychology outcomes, it is the power to recover and return to normal in

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the face of everyday challenges (Mlinac & Schwabenbauer, 2018). Psychological resilience is defined as the ability of an adolescent to remain healthy and capable of dealing with similar situations in the future when faced with risk (Akgün & Baş, 2020). Collete and Ungar (2020) view psychological resilience as a protective feature against past stress and define it as the ability to overcome stress-inducing events. Psychological resilience enables adolescents to maintain their emotional balance and cope more effectively with adverse situations. Additionally, these characteristics strengthen their social relationships, increase their social support seeking, and contribute to their social skill development (Joyce et al., 2018). Self-awareness and problem-solving skills assist adolescents in developing strategies to cope with challenges in their lives. A positive outlook enhances motivation and fosters determination to achieve goals (Leys et al., 2020). Psychological resilience elevates adolescents' overall quality of life, prepares them for future challenges, and supports their development as healthy individuals (Rutter, 2007). Feder and colleagues (2019) described psychological resilience as a dynamic process with a broad definition, which manifests in adverse and stressful moments, enabling successful adaptation in risky or pathological situations. Focusing on behaviors exhibited by children and adolescents in response to everyday challenges, psychopathology emphasizes humanism, which promotes healthy and positive growth and development. Psychological theories emphasize the importance of positive relationships (Graber et al., 2015). Arslan (2015) found in studies examining gender, childhood traumas, meaning in life, and self-compassion as predictors of psychological resilience that gender and childhood traumas were not significant predictors of psychological resilience in adult individuals. Adolescents encounter various risk factors in daily life, and the protective factors that develop in response to these risks diversify based on reactions to psychological resilience. The family system in which the adolescent grows up serves as a protective factor, helping to mitigate negative outcomes, whereas opposing conditions are considered risk factors (Kay, 2016). Therefore, strengthening psychological resilience characteristics during adolescence is important both individually and socially. Since psychological resilience also plays a significant role in the development of emotion regulation skills (Atalay & Özyürek, 2021), it is important to understand emotion regulation skills in adolescents.

Emotion regulation is the ability to better control emotional states (Erdem & Dilekler Aldemir, 2022). It is defined as the ability to exert control over one's emotional state, including behaviors such as rethinking a difficult situation to reduce anger or anxiety, hiding visible signs of sadness or fear, or focusing on reasons to feel happy or calm (Hofmann et al., 2016). Emotion regulation comprises external and internal processes responsible for observing, evaluating, and modifying emotional responses to achieve one's goals, especially with regard to intense and transient emotional reactions. Hill and Updegraff (2012) noted that emotion regulation involves managing both negative and positive emotions. Emotion regulation is a process that shapes the emotions experienced, the timing of these emotions, how they are experienced, and how they are expressed. This process involves effectively managing emotional responses and regulating them to align with life goals. Emotion regulation skills significantly impact emotional health, relationships, and overall quality of life. Thus, developing and using emotion regulation skills in a healthy way is important for psychological well-being (Ersan, 2017). Emotion regulation is a process that initiates, maintains, adjusts, or alters the occurrence, intensity, or duration of emotional states and associated physiological processes, facilitating the achievement of one's goals (Sagar, 2022). Research examining the relationship between humor application and emotion regulation skills in adolescents emphasizes that humor plays an effective role in managing emotions (Campbell et al., 2008; Hampes, 2006).

The concept of humor varies based on an individual's experiences, culture, and influences in social life, and it reflects outwardly, influenced by social values associated with one's unique perception (Niketic, 2019). Humor also helps individuals transform negative experiences into a more positive and non-threatening perspective, allowing them to cope during stressful and risky moments (Fritz et al., 2017). Mendiburo-Seguel and colleagues (2015), unlike previous humor research focusing on successful humor attempts, considered the outcomes of both successful and unsuccessful humor attempts. Typically, humor stimuli influence enjoyment and excitement, eliciting emotions that encompass peace, compassion, and joy, which distinguishes it from other positive emotions in this regard (Samson & Gross, 2014). Therefore, humor skills are considered an important feature, especially during adolescence, in effectively managing

emotions, and many studies emphasize the impact of humor on emotion regulation (Aslan et al., 1996; Ford et al., 2017; Hampes, 2006).

Studies covering the psychological resilience characteristics and emotion regulation skills of adolescents highlight the importance of these concepts during adolescence. No studies have been found in the literature that examine humor skills alongside psychological resilience and emotion regulation skills within the development process in adolescence. Therefore, this study investigates the mediating role of humor styles in the relationship between psychological resilience and emotion regulation skills during adolescence.

The following questions were explored:

- Do the total scores and subdimensions of the "Child and Youth Psychological Resilience Scale," the "Emotion Regulation Scale for Adolescents," and the "Humor Styles Questionnaire for Children" applied to adolescents differ according to the adolescent gender variable?
- Is there a significant relationship between the total scores and subdimensions of the "Child and Youth Psychological Resilience Scale" and the "Emotion Regulation Scale for Adolescents" applied to adolescents?
- Do humor styles have a mediating role in the relationship between total scores and subdimensions of psychological resilience and emotion regulation?

Method

Research Model

This study includes adolescents aged 13-14 who are studying in middle schools, and it aims to examine the mediating role of humor styles in adolescents' psychological resilience and emotion regulation skills within a relational survey model. The relational survey model is one of the general survey model types that aims to determine the presence and/or degree of covariation between two or more variables (Karasar, 2005).

Study Group

The population of the research consists of adolescents aged 13-14 studying in middle schools in the city of Konya during the 2023-2024 academic year. Convenience sampling, also known as accessible sampling, was chosen as the sampling method. This non-probability and non-random sampling technique includes criteria such as easy accessibility, geographical proximity, availability at a specific time, and willingness (Kahraman-Kilbaş & Cevahir, 2023).

Data Collection Tools

The "Personal Information Form," "Child and Youth Resilience Scale," and "Emotion Regulation Scale for Adolescents" were determined as data collection tools to be applied to the study group.

Personal Information Form

This form was used to gather demographic information, including participants' age, gender, number of siblings in the family, birth order, parents' age, educational level, occupation, family structure, and economic status.

Child and Youth Resilience Scale (CYRS-28)

Translated into Turkish by Arslan (2015), this scale was used to measure and determine adolescents' psychological resilience. The original 28-item form consists of three subscales and is structured on a five-point Likert scale, ranging from "Describes me very well (5)" to "Does not describe me at all (1)." Higher scores indicate a higher level of psychological resilience. The internal consistency coefficient of the scale was found to be .92, with item correlation values ranging between .43 and .65. The internal consistency coefficients of the subscales range from .80 to .82.

Emotion Regulation Scale for Adolescents (ERSA)

The Turkish adaptation was conducted by Duy and Yıldız (2014). Confirmatory factor analysis was performed to determine the construct validity of the Emotion Regulation Scale for Adolescents, which consists of four dimensions (external functional, internal dysfunctional, internal functional, and external dysfunctional) without altering the original form. The scale was administered to 190 students, and significant relationships were found among the variables related to emotion regulation methods. The scale consists of 18 items and is structured on a five-point Likert scale,

ranging from "Never (1)" to "Always (5)." Higher scores in subdimensions indicate a higher frequency of using that particular emotion regulation method, while lower scores indicate a decreased usage frequency.

Humor Styles Questionnaire for Children (HSQC)

This scale was developed to measure humor styles in adolescents. The age range of participants is 9-15, but the scale has been shown to have acceptable reliability only for individuals aged 11 and above. The original scale consists of 24 items, and the Turkish adaptation was performed by Anlı (2021). In the Turkish adaptation, items 3, 7, 12, 13, 15, 18, and 19, which had low factor loadings, were removed, resulting in a 17-item scale. Items 4 and 14 are reverse-coded among these 17 items.

Data Analysis

An independent groups t-test was conducted to examine whether humor styles, emotion regulation skills, and psychological resilience differed based on gender, mother's employment status, and type of school in the study group of adolescent middle school students. One-way ANOVA analyses were performed to examine the differences in humor styles, emotion regulation skills, and psychological resilience based on parents' educational level and economic status. Linear regression analysis was conducted to examine the mediating role of humor styles in the relationship between psychological resilience and emotion regulation skills. Statistical significance was examined at the $p < .05$ level.

Findings

The demographic variables of middle school adolescents included in the study group are presented in Table 1.

Table 1. Distribution of participants by demographic characteristics

Variables		n	%
Gender	Girl	110	46.20
	Boy	128	53.80
Number of Siblings	Single	17	7.10
	Two	106	44.50
	Three	81	34.00
	Four and more	34	14.30
Mother's Educational Status	Primary School	43	18.10
	Secondary School	31	13.00
	High School	49	20.60
	University	115	48.30
Father's Educational Status	Primary School	31	13.00
	Secondary School	20	8.40
	High School	52	21.80
	University	135	56.70
Mother's Occupation	Unemployed	127	53.40
	Civil Servant	68	28.60
	Self-employed	20	8.40
	Retired	5	2.10
	Laborer	6	2.50
	Other	12	5.00
Father's Occupation	Unemployed	5	2.10
	Civil Servant	65	27.30
	Self-employed	58	24.40
	Retired	9	3.80
	Laborer	27	11.30
	Other	74	31.10
Family Type Characteristic	Nuclear Family	186	78.20
	Extended Family	36	15.10
	Divorced Family	16	6.70
Family's Economic Status	Very Good	44	18.50
	Good	121	50.80
	Average	73	30.70
Parental Loss	Present	13	5.50
	Absent	225	94.50

The minimum-maximum values, mean-standard deviation values, and skewness-kurtosis values for the Humor Styles, Psychological Resilience, and Emotion Regulation Scales and their subdimensions were examined. The results indicated that the values were within acceptable limits.

An independent samples t-test was conducted to determine whether the total score and subdimension scores of the Humor Styles Scale differed by gender. The results showed that affiliative humor styles and aggressive humor styles were significantly higher in males (respectively, $t(236) = -2.34, p < .05$; $t(236) = -2.10, p < .05$). However, no significant differences were found in the mean scores of other variables between genders ($p > .05$). The findings are presented in Table 2.

Table 2. Comparison of total scores and subdimensions of the Humor Styles Scale by gender

Variables	Gender	n	\bar{x}	S	95% Confidence Interval		t	p
					Lower Bound	Upper Bound		
Total Humor Styles Score	Girl	110	45.05	9.42	-4.46	.49	-1.57	.117
	Boy	128	47.02	9.89				
Affiliative Humor Style	Girl	110	16.13	4.26	-2.38	-.21	-2.34	.020
	Boy	128	17.42	4.25				
Self-Enhancing Humor Style	Girl	110	13.83	5.20	-.71	2.01	.937	.350
	Boy	128	13.18	5.42				
Aggressive Humor Style	Girl	110	9.47	2.90	-1.64	-.05	-2.10	.037
	Boy	128	10.32	3.27				
Self-Defeating Humor Style	Girl	110	5.62	2.31	-1.08	.11	-1.59	.113
	Boy	128	6.10	2.36				

A series of independent samples t-tests were conducted to determine whether the total score and subdimension scores of the Psychological Resilience Scale differed by gender. The results showed that males scored significantly higher in the Contextual Cultural Resources subdimension ($t(236) = -2.01, p < .05$). However, no significant differences were found in the mean scores of other variables between genders ($p > .05$). The findings are presented in Table 3.

Table 3. Comparison of total scores and subdimensions of the Psychological Resilience Scale by gender

Variables	Gender	n	\bar{x}	S	95% Confidence Interval		t	p
					Lower Bound	Upper Bound		
Total Psychological Resilience Score	Girl	110	103.28	16.07	-8.00	.24	-1.85	.065
	Boy	128	107.16	16.11				
Individual Resources	Girl	110	40.89	7.25	-2.92	.73	-1.18	.240
	Boy	128	41.98	7.04				
Family Relations	Girl	110	25.84	5.91	-2.55	.36	-1.48	.140
	Boy	128	26.93	5.47				
Contextual Cultural Resources	Girl	110	36.55	6.26	-3.34	-.04	-2.01	.045
	Boy	128	38.24	6.60				

A series of independent samples t-tests were conducted to determine whether the total score and subdimension scores of the Emotion Regulation Scale differed by gender. The results showed that females scored significantly higher in the Internal Dysfunctional Emotion Regulation subdimension ($t(236) = 2.75, p < .01$). However, no significant differences were found in the mean scores of other variables between genders ($p > .05$). The findings are presented in Table 4.

Table 4. Comparison of total scores and subdimensions of the Emotion Regulation Scale by gender

Variables	Gender	n	\bar{x}	S	95% Confidence Interval		t	p
					Lower Bound	Upper Bound		
Total Emotion Regulation Score	Girl	110	55.55	8.51	-1.52	3.17	.694	.488
	Boy	128	54.72	9.69				
Internal Functional Emotion Regulation	Girl	110	14.69	3.64	-1.25	.53	-.784	.434
	Boy	128	15.05	3.36				
Internal Dysfunctional Emotion Regulation	Girl	110	17.03	4.34	.46	2.77	2.75	.006
	Boy	128	15.41	4.65				
External Functional Emotion Regulation	Girl	110	12.11	3.90	-1.22	.69	-.548	.584
	Boy	128	12.38	3.59				
External Dysfunctional Emotion Regulation	Girl	110	11.72	4.63	-1.38	1.05	-.266	.790
	Boy	128	11.88	4.86				

The relationship between the Psychological Resilience Scale and the Emotion Regulation Scale was examined. The relationship between psychological resilience and its subdimensions and the functional emotion regulation subdimensions is positive and significant. The findings are presented in Table 5.

Table 5. Relationships between total scores and subdimensions of the Emotion Regulation Scale and the Psychological Resilience Scale

Variables	1	2	3	4	5	6	7	8
Total Emotion Regulation Score	r 1							
	p							
Internal Functional	r .573***	1						
	p .000							
Internal Dysfunctional	r -.660***	-.043	1					
	p .000	.512						
External Functional	r .544***	.384***	-.123	1				
	p .000	.000	.057					
External Dysfunctional	r -.652***	-.145*	.318***	.025	1			
	p .000	.025	.000	.699				
Total Psychological Resilience Score	r .474***	.449***	-.189***	.490***	-.115	1		
	p .000	.000	.003	.000	.078			
Individual Resources	r .436***	.468***	-.165*	.410***	-.106	.843***	1	
	p .000	.000	.011	.000	.102	.000		
Family Relations	r .380***	.276***	-.176***	.442***	-.092	.804***	.490***	1
	p .000	.000	.006	.000	.156	.000	.000	
Contextual Cultural Resources	r .367***	.362***	-.134*	.384***	-.088	.859***	.570***	.587***
	p .000	.000	.038	.000	.178	.000	.000	.000

To examine the mediating role of humor styles in the relationship between psychological resilience and emotion regulation skills, five separate two-step linear regression analyses were conducted. In all regression analyses, it was observed in the first step that psychological resilience positively and significantly predicted emotion regulation skills ($\beta = .217, p < .001$). In the second step, each humor style was added to each model. For the mediating variable to be tested, when both the mediating variable and the predictor variable are entered into the regression analysis simultaneously, the previously significant relationship between the predictor and the outcome variable should become non-significant or the previous significance level should decrease (Baron & Kenny, 1986). When the results were examined, only the Self-Enhancing Humor Style was found to be significant. The findings are presented in Table 6.

Table 6. Mediating role of Self-Enhancing Humor Styles in the relationship between Psychological Resilience and Emotion Regulation Skills

Model		R	Corrected R ²	B	SH	β	<i>t</i>	<i>p</i>
1	(Constant)	.217	.043	42.151	3.833		10.996	.000
	Psychological Resilience			.123	.036	.217	3.418	.001
2	(Constant)	.270	.065	39.425	3.936		10.017	.000
	Psychological Resilience			.113	.036	.200	3.165	.002
	Self-Enhancing Humor			.279	.109	.162	2.559	.011

In this section, the results emerging from the examination of adolescents' psychological resilience, emotion regulation, and humor styles subdimensions, as well as their mediating roles, are discussed in the context of studies conducted in the relevant literature.

Discussion

In this study, the research question "Is there a difference between the total score and sub-scores of the Psychological Resilience Scale for adolescents and the gender variable?" was examined. Significant differences were observed between psychological resilience scores and the gender variable in the distribution of adolescents' psychological resilience scores and sub-dimensions by gender. The contextual cultural subdimension of psychological resilience was found to be significantly higher in male students than in female students. When the literature is reviewed, similar results are observed in many studies. Cicchetti and Garmezy (1993) stated that male students' psychological resilience is significantly higher than that of female students. Based on this finding, it is thought that males are more successful in coping with risk factors. The reason for this may be the development of males' ability to take responsibility and establish close relationships, influenced by demographic factors. Tusaie and Patterson (2006) and Ergün-Başak and Can (2018) reached similar conclusions. Studies with different results were also found in the literature review (Graber et al., 2015; Zolkoski & Bullock, 2012). In the study conducted by Yavuz (2023), no significant difference was found in the average psychological resilience scores by gender.

In the research question "Is there a difference between the sub-scores of the Emotion Regulation Scale for adolescents and the gender variable?", the sub-dimensions of emotion regulation and the gender variable were examined, and it was found that the internal dysfunctional emotion regulation subdimension was higher in female students. No gender differences were found in other subdimensions. Similarly, studies by Feder et al. (2019), Erdem and Dilekler Aldemir (2022), and Kay (2016) found that the internal dysfunctional emotion regulation subdimension was higher in females. Similar results are available in the literature (Erdem & Dilekler Aldemir, 2022; Hofmann et al., 2016; Sagar, 2022). This could be due to the tendency of negative thoughts in girls' minds to be more cyclical and the fact that adolescents at this age tend to be more introverted. Additionally, societal and cultural characteristics may cause girls to be more suppressed. It is seen that different results in the literature indicate the need for continued research on these variables.

When examining the research question "Is there a difference between the total score and sub-scores of the Humor Styles Scale for adolescents and the gender variable?", affiliative humor and aggressive humor styles were found to be significantly higher in males than in females. No significant differences were found in other humor style dimensions. This may be due to males reflecting humor more intensely and aggressively, while also valuing establishing relationships and using humor to create happiness. When looking at similar research, studies with consistent results with our study are observed. Fındıklı (2013) found that aggressive humor styles were higher in male students. Fırat (2017), in a study on university students, revealed that aggressive humor was higher in male students. Özdolap (2015) examined humor styles and psychological symptoms, focusing on aggressive humor, and found that males had higher aggressive humor than females. Studies by Çelebi Öncü and Uğurlular (2021), Yıldız (2023), and Çetin (2017) also support these findings by showing that aggressive humor is higher in males.

In addition to these studies, there are other studies supporting and not supporting gender differences in humor styles (Arslan, 2015; Avci, 2012; Campbell et al., 2008; Feder et al., 2019; Findikli, 2013; Hill & Updegraff, 2012; Özdolap, 2015; Çetin, 2017). Studies with findings that do not align with our results also exist in the literature. Some studies have shown that affiliative and self-enhancing humor is higher in females, while the self-defeating humor style scores are close between males and females (Çolak, 2020; Sarink & García-Montes, 2023; Sagar, 2022; Yavuz, 2023). Some studies have found that affiliative humor is higher in females (Çelebi Öncü & Uğurlular, 2021). Gruber and colleagues (2012) found no significant differences in any humor style subdimensions. Based on these differences, it can be suggested that adolescents in a particular cultural environment may be encouraged to be more dominant and stand out, especially among males, while female students may be raised to be more understanding and tolerant, with males showing more self-centered behaviors, which may have social implications.

The research question "Is there a significant relationship between the total scores and subdimensions of psychological resilience and emotion regulation?" was also examined. Significant relationships were found between emotion regulation subdimensions and psychological resilience dimensions, with positive relationships observed, especially between functional emotion regulation and psychological resilience dimensions. In the literature, Collette and Ungar (2020) found positive significant relationships between psychological resilience and functional internal and external emotion regulation, with negative significant relationships with dysfunctional emotion regulation dimensions. The studies by Mlinac and Schwabenbauer (2018) and Tusaie and Dyer (2004) also showed significant relationships, supporting this research. In a study on university students, Ergün-Başak and Can (2018) found a positive significant relationship between psychological resilience and emotion regulation. Based on these results, the mutual interaction between emotion regulation and psychological resilience may be an important area to focus on in students' educational lives. Adolescents who can regulate emotions may be more resilient to life's challenges and emotional adversities (Hill & Updegraff, 2012).

In our study, it was found that internal functional and external functional subdimensions had negative relationships with dysfunctional subdimensions. Akçalı and Ulutaş Keskinliç (2021) found positive significant relationships between functional emotion regulation subdimensions and within dysfunctional emotion regulation subdimensions. Based on the findings regarding the presence of a significant relationship between humor styles and total scores and subdimensions of psychological resilience, aggressive humor and self-defeating humor styles were found to significantly affect the psychological resilience subdimensions, with a negative significant relationship between them.

The research question "Do humor styles have a mediating role in the relationship between psychological resilience and emotion regulation scores and subdimensions?" was also examined. It was observed that self-enhancing humor and psychological resilience predicted emotion regulation skills. Additionally, self-enhancing humor was found to have a mediating role in the relationship between psychological resilience and emotion regulation skills. In the literature, there are few studies investigating the mediating effect of humor styles on these two concepts. In a study by Arısoy (2021), the affiliative humor subdimension was found to significantly predict psychological resilience. In the study by İşözen and Kolay (2022), the family support subdimension significantly predicted emotion regulation skills, and emotion regulation skills were reported to significantly predict adolescents' psychological resilience levels. Eroğlu (2019) stated in his study that adolescents' emotion regulation skills predicted psychological resilience. Savruk (2023) found that self-enhancing humor positively predicted emotion regulation skills, while aggressive and self-defeating humor styles negatively predicted emotion regulation. These findings suggest that humor styles may play an important role in individuals' emotional and psychological well-being. Future studies involving different age groups and cultural contexts may improve the diversity and generalizability of findings. Additionally, increasing the number of experimental studies on humor styles and implementing psychosocial programs in schools to support positive humor styles could benefit adolescents.

Conclusion and Recommendations

Based on the results obtained from our study, male students were found to have higher contextual cultural dimensions of psychological resilience than female students. The findings also revealed a significant difference only in the internal dysfunctional emotion regulation subdimension, with female students scoring higher than male students. Male students had higher scores in aggressive and affiliative humor.

Considering the relationships identified in the study, internal and external functional subdimensions used by adolescents to regulate their emotions were found to have a positive relationship with psychological resilience. Furthermore, the study results showed that self-enhancing humor had a mediating role in the relationship between emotion regulation and psychological resilience. Therefore, it can be suggested that humor styles play an important role in the development of adolescents' psychological resilience and emotion regulation skills. Adolescents adopting positive humor styles and developing functional emotion regulation skills may enhance their psychological resilience.

Based on the study group and data obtained in this research, the following recommendations are provided:

- As emphasized in the literature's discussion section, the lack of studies on certain points reduces the generalizability of findings. More studies, especially experimental research, could be conducted.
- Psychoeducation programs could be designed to make male and female students in this age group aware of their humor styles and to enhance their emotion regulation and psychological resilience skills.
- Awareness programs should be organized regardless of parental education level, creating an environment where parents can reflect on the concepts of psychological resilience and emotion regulation skills, potentially improving the quality of their relationships with adolescents.
- Regarding school type, especially with the increasing diversity of private and public schools, examining similar research topics could help reveal the dynamics of these school types. It may be beneficial to encourage studies that promote positive humor styles in public schools.
- Psychoeducation and awareness programs could be organized specifically for adolescents on negative humor styles and dysfunctional emotion regulation skills.
- Future studies could work with larger sample groups, and studies conducted in different cultural contexts could enhance the generalizability of the findings.

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