



Factors Affecting Emotion Regulation of Undergraduate Students in China

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Abstract

Background and Aims: This study aimed to investigate the factors related to and affecting emotion regulation among undergraduate students in China. Emotion regulation plays a crucial role in students' mental health, social functioning, and academic adaptation. However, limited research has been conducted on this topic in the context of Chinese higher education.

Methodology: A quantitative questionnaire survey was conducted with 326 undergraduate students from Kunming College of Arts and Sciences, selected through simple random sampling. The Emotion Regulation and Factors Affecting Emotion Regulation Questionnaire (ERFAQ) was used to assess seven variables. The data were analyzed using correlation and regression analyses.

Results: The findings showed that all seven independent variables, authoritative parenting style, authoritarian parenting style, permissive parenting style, academic stress, regulatory emotional self-efficacy, cognitive control, and social media use, were significantly positively correlated with emotion regulation ($p < 0.01$). Five factors significantly predicted emotion regulation: academic stress, authoritative parenting style, regulatory emotional self-efficacy, cognitive control, and social media use. These variables explained 45.4% of the variance in emotion regulation. Authoritarian and permissive parenting styles showed no significant predictive effect.

Conclusion: The study showed that academic, personal, family, and social media factors jointly influence the emotional regulation abilities of Chinese undergraduate students. The findings suggest that focusing on stress reduction, emotional self-efficacy development, supportive parenting, and balanced media use may effectively enhance emotion regulation in this population.

Keywords: Emotion Regulation; Undergraduate Students; Authoritative Parenting Style; Academic Stress; Regulatory Emotional Self-efficacy; Cognitive Control; Social Media Use

Introduction

Emotion regulation refers to the process by which individuals influence their emotional experiences, expressions, and reactions to achieve adaptive functioning (Gross, 1998; Koole, 2009).





It plays a critical role in individuals' mental health, interpersonal relationships, and overall quality of life (Gross, 1999; Xu, 2002). Effective emotion regulation can help reduce negative emotions such as anxiety and depression, support better academic adaptation, and enhance social well-being (Gratz & Roemer, 2008; Lopes et al., 2003). From an educational management perspective, universities have the responsibility to foster emotionally supportive environments that help students develop effective emotion regulation skills.

Undergraduate students in China often face substantial stress from academics, employment, and interpersonal relationships (Antony et al., 1998; Zhao, 2022). Further, high parental expectations and peer competition also contribute to emotional strain, which can severely affect their mental health (Sun et al., 2012; Zhao et al., 2015). If not effectively regulated, these stressors can trigger emotional problems and impair learning and life (Wu, 2006; Zhao, 2023). Furthermore, recent studies during the COVID-19 pandemic revealed high levels of anxiety and depression among graduating students due to employment pressures and life uncertainties (Peng et al., 2024; Yang & Yang, 2022). These findings underscore the persistent and multifaceted emotional challenges faced by Chinese undergraduate students. Therefore, exploring what factors influence emotion regulation in this group is essential for promoting student mental health.

Emotion regulation is shaped by complex interrelated factors, including personal traits, family background, and social environment (Campos et al., 2004; Wu, 2006). Based on existing literature, this study identified authoritative parenting style, authoritarian parenting style, permissive parenting style, academic stress, regulatory emotional self-efficacy, cognitive control, and social media use as key influencing variables. These variables correspond to four critical dimensions of student development: family, school, individual, and social media environment, and have been shown to impact emotional adjustment (Caprara et al., 2008; Morris et al., 2017; Valkenburg et al., 2005). Understanding these factors will help promote healthy emotional development and provide practical implications for psychological education in universities.

Objectives

1) To investigate the relationship between authoritative parenting style, authoritarian parenting style, permissive parenting style, academic stress, regulatory emotional self-efficacy, cognitive control, social media use, and emotion regulation.

2) To investigate the factors that affect the emotion regulation of students at Kunming College of Arts and Sciences.





Literature Review

Emotion regulation refers to the process individuals use to influence their emotional experiences and expressions. Gross (1998) defined it as the process of modulating emotional responses through cognitive and behavioral adjustments. Effective emotion regulation contributes to better interpersonal relationships and mental health outcomes (Gross et al., 2006). In the context of higher education, emotion regulation is essential for students to navigate academic demands, interpersonal challenges, and campus life transitions. Universities can play a vital role in fostering emotional regulation through counseling services, peer mentoring, and emotionally supportive learning environments (Kumaraswamy, 2013; Wang & Fu, 2005).

Parenting styles, categorized into authoritative, authoritarian, and permissive (Baumrind, 1971), significantly influence children's emotional development. Studies suggest that warm and supportive parenting fosters better emotion regulation, while overly strict or inconsistent parenting may hinder emotional growth (Morris et al., 2017). As Chinese students transition from home to university life, the emotional patterns shaped by parenting continue to influence their adjustment. For instance, students from authoritarian households may struggle with emotional expression or autonomy in the university setting (Morris et al., 2017; Wang & Fu, 2005). Universities should recognize the diversity of students' family backgrounds and consider how to support those whose parenting experiences may have limited the development of emotion regulation skills. This could involve inclusive emotional education programs or targeted psychological services that help students enhance their emotional awareness, expression, and control abilities in the university environment.

Academic stress, stemming from examination pressures, performance expectations, and heavy workloads, is a prevalent challenge for undergraduate students in China. High academic stress negatively impacts mental health, but effective emotion regulation can mitigate its adverse effects (Sari et al., 2020). This stress is often intensified by systemic features of Chinese higher education, such as high-stakes testing, rigid grading policies, and intense academic competition. Universities can reduce the emotional burden of academic stress through balanced curriculum design, diversified assessment methods, and supportive academic advising systems that promote adaptive emotion regulation strategies among students (Bedewy & Gabriel, 2015; Kumaraswamy, 2013).

Regulatory emotional self-efficacy refers to an individual's confidence in managing negative emotions and expressing positive emotions. High self-efficacy is associated with better emotional resilience and reduced anxiety (Caprara et al., 2008). Within university settings, students' emotional self-efficacy can be enhanced by encouraging autonomy, providing constructive feedback, and cultivating emotionally supportive classroom climates. Programs such as peer



mentoring, coaching, and emotional skills workshops may contribute to building students' belief in their ability to regulate emotions effectively (Bandura et al., 2003; Caprara et al., 2008).

Cognitive control, including working memory, attention regulation, and inhibitory control, plays a vital role in emotion regulation. It helps individuals manage negative emotions and maintain emotional stability (Hendricks & Buchanan, 2016). University learning environments often require students to juggle multiple tasks, filter distractions, and sustain focus, demands that rely heavily on cognitive control. Students with stronger cognitive control are more capable of adapting to academic pressure and regulating emotional responses. Therefore, universities could consider integrating executive functioning support, such as study skills training or mindfulness programs, into student support services to indirectly strengthen emotion regulation.

Social media use, a pervasive aspect of modern life, influences emotion regulation both positively and negatively. While it can provide emotional support, excessive use may lead to increased stress and emotional dysregulation (Fokker et al., 2021). In the Chinese university context, where mobile and digital platforms are deeply embedded in student life, social media can affect students' emotional states, attention, and social comparisons. Some universities are beginning to address these impacts by promoting healthy media use, offering digital detox workshops, and integrating media literacy into student development programs. Such initiatives may reduce emotional disturbance and support better emotional balance (Jenkins-Guarnieri et al., 2013; Valkenburg et al., 2005).

In summary, the reviewed literature highlighted the relevance of these seven variables in shaping emotion regulation, thus informing the construction of the research framework that guides this study.

Conceptual Framework

Based on the previous literature review, this study identified seven key factors that influence emotion regulation: authoritative parenting style, authoritarian parenting style, permissive parenting style, academic stress, regulatory emotional self-efficacy, cognitive control, and social media use. Therefore, the following conceptual framework was developed.

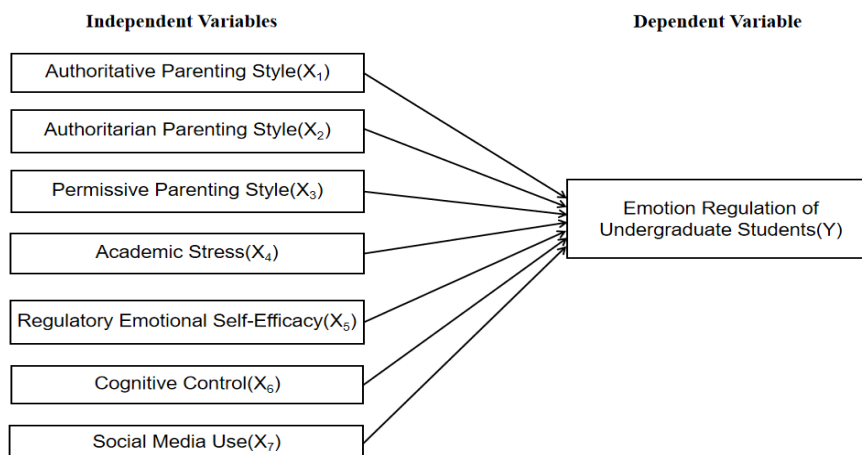


Figure 1 Conceptual Framework of the Study

Methodology

This study adopted a quantitative correlational research design to examine the relationships between seven influencing factors and emotion regulation among Chinese undergraduates. A total of 326 fourth-year students from the Faculty of Education at Kunming College of Arts and Sciences participated in the study, recruited through simple random sampling.

The instrument used in this study was a self-developed questionnaire titled Emotion Regulation and Factors Affecting Emotion Regulation Questionnaire (ERFAQ), consisting of 66 items divided into eight sections. The questionnaire measured eight variables, including seven independent variables: authoritative parenting style, authoritarian parenting style, permissive parenting style, academic stress, regulatory emotional self-efficacy, cognitive control, and social media use, as well as the dependent variable, emotion regulation. It adopted a 5-point Likert scale.

The content validity of the questionnaire was assessed by three experts using the Index of Item-Objective Congruence (IOC); all subscales demonstrated an IOC value of 1.00. Internal consistency was assessed using Cronbach's alpha. The overall Cronbach's alpha coefficient of the questionnaire was 0.918, while each subscales showed acceptable to high reliability, with alpha values as follows: emotion regulation (0.941), authoritative parenting style (0.867), authoritarian parenting style (0.892), permissive parenting style (0.879), academic stress (0.917), regulatory emotional self-efficacy (0.922), cognitive control (0.905), and social media use (0.899).

Data were collected in 2025 by distributing online questionnaires through a survey platform. Participants were informed of the purpose and process of the study before participation, and informed consent was obtained. All data were analyzed using the SPSS program. Descriptive

statistics were used to summarize the central tendency and variability of each variable. Pearson correlation analysis was conducted to examine the relationships between emotion regulation and each of the seven predictor variables. Stepwise multiple regression analysis was used to identify the most significant predictors of emotion regulation and to assess their relative contributions.

Results

Based on the analysis of the available data and variables, the researchers identified the key factors affecting the emotion regulation of students in Kunming College of Arts and Sciences.

Table 1 Correlation Coefficient between the Factors Affecting Emotion Regulation

	Y	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇
Y	1	0.426**	0.211**	0.166**	0.467**	0.399**	0.241**	0.238**
X ₁		1	0.300**	0.152**	0.068	0.152**	0.201**	0.048
X ₂			1	0.381**	0.119*	0.019	0.000	0.046
X ₃				1	0.123*	0.085	-0.032	0.024
X ₄					1	0.206**	0.044	0.305**
X ₅						1	0.148**	0.046
X ₆							1	0.077
X ₇								1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

As presented in Table 1, Pearson correlation analysis revealed that all seven predictor variables were significantly and positively associated with emotion regulation ($p < 0.01$). Specifically, authoritative parenting style (X_1 , $r = 0.426$), authoritarian parenting style (X_2 , $r = 0.211$), permissive parenting style (X_3 , $r = 0.166$), academic stress (X_4 , $r = 0.467$), regulatory emotional self-efficacy (X_5 , $r = 0.399$), cognitive control (X_6 , $r = 0.241$), and social media use (X_7 , $r = 0.238$) each showed a significant positive correlation with emotion regulation.

Table 2 Analysis of Variance of the Emotion Regulation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.683 ^a	0.466	0.454	0.51629

As shown in Table 2, the regression model demonstrated moderate to strong predictive power, with an R^2 value of 0.466, indicating that the seven predictors collectively explained 46.6% of the variance in emotion regulation. The adjusted R^2 was 0.454, reflecting stable explanatory capacity.

Table 3 Predictive Factor Analysis of Emotion Regulation

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	-0.385	0.246		-1.566	0.118
	X ₁	0.259	0.037	0.314	7.088	0.000***
	X ₂	0.044	0.039	0.052	1.131	0.259
	X ₃	0.027	0.034	0.035	0.793	0.429
	X ₄	0.327	0.042	0.349	7.881	0.000***
	X ₅	0.234	0.039	0.254	5.934	0.000***
	X ₆	0.098	0.035	0.119	2.812	0.005**
	X ₇	0.084	0.039	0.093	2.148	0.032*

*** p<.001, ** p<.01, * p<.05

Table 3 presents the significance test of the regression coefficients of the model's independent variables. From the results, it was observed that there are five factors with p-values corresponding to the t-values of the regression coefficients that were less than the significance level of 0.05. These five factors, ranked from most to least influential based on standardized Beta values, are as follows: academic stress (X_4), authoritative parenting style (X_1), regulatory emotional self-efficacy (X_5), cognitive control (X_6), and social media use (X_7).

Based on the results, the following regression equations were derived from the significant predictors. The unstandardized regression equation can be used to predict actual levels of emotion regulation based on the raw scores of the predictor variables. In contrast, the standardized regression equation reflects the relative strength of each predictor's influence on emotion regulation, independent of the original units of measurement.

The unstandardized regression equation is:

$$\hat{Y} = -0.385 + 0.327X_4 + 0.259X_1 + 0.234X_5 + 0.098X_6 + 0.084X_7$$

The standardized regression equation is:

$$Z = 0.349X_4 + 0.314X_1 + 0.254X_5 + 0.119X_6 + 0.093X_7$$

Discussion

1. Correlation analysis showed that all seven influencing factors were significantly positively correlated with emotion regulation at the 0.01 level. These factors included: 1) authoritative parenting style, 2) authoritarian parenting style, 3) permissive parenting style, 4) academic stress, 5) regulatory emotional self-efficacy, 6) cognitive control, and 7) social media use.

1.1 Authoritative parenting style was positively associated with emotion regulation ($r = 0.426$, $p < 0.01$). This could be explained by the emotionally secure and structured environment typically provided by authoritative parents, which may help students develop effective self-regulation skills. Morris et al. (2017) noted that children raised in warm and responsive households tend to experience greater emotional awareness and control, as such environments encourage open emotional expression and guidance. Baumrind (1971) similarly emphasized that authoritative parenting, marked by high expectations combined with emotional warmth, promotes psychological resilience and autonomy, both of which are essential for successful emotion regulation. In the Chinese context, these parenting practices are often underpinned by Confucian values, such as self-cultivation, filial piety, and respect for authority, which are integral components of the Confucian-informed concept of training described by Chao (1994). These cultural values may further motivate students to regulate their emotions in socially appropriate and goal-oriented ways, particularly when facing academic or interpersonal challenges. Therefore,



the positive association observed in this study is consistent with both Western developmental theories and culturally specific values embedded in Chinese parenting norms.

1.2 Authoritarian parenting style was weakly but significantly associated with emotion regulation ($r = 0.211$, $p < 0.01$), a result that contrasts with findings from many Western studies, which often link authoritarian control to poor emotional outcomes such as suppression or dysregulation (Morris et al., 2007; Steinberg, 2005). This could be explained by culturally specific interpretations of parental control in Chinese society. Yang and Yang (1999) argued that in China, moderate authoritarianism is often perceived not as oppression, but as a form of care and ambition, particularly the culturally embedded aspiration for children to “become dragons”. According to Markus and Kitayama (2014), the theory of self-construal further supports this perspective, suggesting that in collectivist cultures, individuals tend to develop an interdependent self, which places value on family harmony, obedience, and social roles. From this viewpoint, parental control, when not excessive, may be interpreted as a legitimate expression of involvement and commitment to the child’s success, thus encouraging emotionally disciplined behavior.

However, it is also important to consider the threshold at which authoritarian parenting may become detrimental. When control becomes overly rigid, lacks emotional warmth, or inhibits individual expression, it may lead to emotional suppression, internal conflict, or even maladaptive regulation, as suggested by Morris et al. (2007), who emphasized that emotionally unresponsive parenting undermines the development of emotion understanding and regulation in children. Therefore, while the positive correlation observed may reflect culturally adaptive interpretations of moderate control, this effect is likely contingent on the presence of emotional support and the avoidance of excessive intrusion.

1.3 Permissive parenting style demonstrated a significant but relatively weak positive association with emotion regulation ($r = 0.166$, $p < 0.01$). This could be explained by the emotionally responsive yet low-control nature of permissive parenting. While such parents may create a supportive atmosphere that fosters emotional openness, they often fail to set consistent behavioral boundaries, which are essential for the development of self-regulation. Baumrind (1971) described permissive parenting as high in responsiveness but low in demands, a pattern that may result in children having limited experience with frustration, impulse control, or goal-directed behavior.

Morris et al. (2013) further noted that a lack of parental structure may impair children’s ability to internalize consistent emotion regulation strategies, particularly when they encounter stress. This issue may be especially pronounced in the context of Chinese higher education, which is highly competitive and performance-driven. Students from permissive backgrounds may enter



university lacking the self-discipline and frustration tolerance needed to manage academic setbacks, long-term goals, and social expectations. In this high-pressure environment, shaped by intense entrance examinations like the Gaokao and a cultural emphasis on perseverance, emotional regulation may become more difficult for those without prior exposure to structured behavioral demands, as suggested by Sun and Shek (2012), who observed that Chinese students under academic stress often struggle with behavioral control and emotional adjustment in demanding learning environments. Consequently, although permissive parenting provides emotional acceptance, its long-term impact on emotion regulation appears limited, especially when facing the demands of an achievement-oriented educational system.

1.4 Academic stress exhibited the strongest positive correlation with emotion regulation ($r = 0.467$, $p < 0.01$). At first glance, this result might appear counterintuitive, as academic stress is commonly associated with emotional difficulties. However, this finding may reflect the important role of adaptive coping and emotional self-regulation in managing inevitable academic demands. According to the transactional model of stress and coping (Lazarus, 1984), stress itself does not inherently lead to maladaptive outcomes; rather, the emotional consequences of stress depend on how individuals appraise and respond to it. Students who perceive academic stressors as challenges are more likely to engage in constructive coping strategies such as problem-solving or cognitive reappraisal, which are integral components of effective emotion regulation.

This is consistent with Sari et al. (2020), who found that students with stronger emotion regulation and coping skills reported significantly lower levels of academic stress, supporting the notion that emotion regulation capacity mediates perceived stress levels rather than stress directly enhancing regulation. Similarly, Teixeira et al. (2022) observed that students with high regulatory capacity were more likely to reframe stress constructively and maintain emotional balance under academic pressure. Therefore, the positive correlation observed in this study is not to be interpreted as academic stress improving emotional functioning; rather, it reflects that students with stronger regulation skills are better equipped to handle stress effectively. This highlights the need for universities to focus on cultivating students' emotional resilience and adaptive coping skills, rather than attempting to normalize or increase academic stress itself.

1.5 Regulatory emotional self-efficacy was significantly positively correlated with emotion regulation ($r = 0.399$, $p < 0.01$). This result supports existing literature suggesting that students with firmer self-efficacy beliefs in emotion regulation are more likely to employ adaptive emotional strategies. Caprara et al. (2008) emphasized that regulatory emotional self-efficacy enhances emotion regulation through two key pathways: reducing anxiety in emotionally intense situations and promoting the use of constructive regulation methods. Similarly, Mesurado et al. (2018) found that students with higher emotional self-efficacy are better equipped to manage



interpersonal conflicts and academic stress through proactive regulation techniques. These findings align with Gross's process model of emotion regulation, which identifies cognitive reappraisal, the reinterpretation of stressors, as a central strategy in regulating emotional responses. Students who believe in their ability to manage emotions are more likely to engage in such strategies when facing academic or social pressures.

Given the centrality of emotional self-efficacy in effective regulation, universities have a key role to play in actively fostering this competence. For example, Caprara et al. (2008) advocated for structured interventions to strengthen emotional self-beliefs. In educational contexts, this may include offering workshops that help students identify and reframe negative thought patterns, training in mindfulness or relaxation techniques, and integrating self-reflection practices, such as journaling or guided peer discussions, into the curriculum. Such efforts not only support emotional well-being but also align with broader educational goals of promoting resilience, autonomy, and holistic student development.

1.6 Cognitive control was significantly positively correlated with emotion regulation ($r = 0.241$, $p < 0.01$). This finding is consistent with previous studies indicating that core cognitive functions, such as working memory, attention regulation, and inhibitory control, serve as important foundations for emotional stability. Hendricks and Buchanan (2016) emphasized that executive function supports emotion regulation by enabling individuals to manage goal-directed behavior and override impulsive emotional responses. Miyake et al. (2000) further identified these executive components as distinct yet interrelated cognitive processes that allow individuals to flexibly adapt their behavior under stress.

In the context of undergraduate education, these cognitive skills are particularly relevant. Working memory enables students to juggle multiple assignments and mentally organize complex course content. Attention regulation allows them to focus during lengthy lectures or study effectively despite distractions. Inhibitory control helps them resist procrastination, manage frustration during peer conflicts, and respond constructively to academic feedback or high-stakes exams. When these cognitive resources are strong, students are better positioned to reappraise stressful situations and engage in adaptive emotional strategies. Conversely, impairments in these areas can heighten emotional vulnerability, leading to impulsivity, avoidance, or disengagement. Therefore, strengthening cognitive control is not only a pathway to academic success but also a critical component of emotional well-being among university students.

1.7 Social media use showed a weak but statistically significant positive correlation with emotion regulation ($r = 0.238$, $p < 0.01$). This suggests that while social media is often viewed as emotionally risky, it may also serve as a source of emotional support and regulation when used purposefully. Choi and Toma (2014) found that individuals who engage in intentional social media



use, such as reaching out to friends or sharing positive experiences, can enhance emotional well-being through strengthened online social bonds and validation.

However, it is important to present a balanced view of these findings. Some of the literature has cautioned against the emotional risks associated with unregulated or excessive social media use. These include social comparison, fear of missing out (FOMO), and exposure to cyberbullying, factors which have been strongly linked to emotional dysregulation and psychological distress. Keles et al. (2020) conducted a systematic review and concluded that problematic social media use is significantly associated with increased risks of anxiety, depression, and emotional instability, particularly among adolescents and young adults.

In this light, the positive association found in this study may reflect the benefits of moderate, intentional, and socially constructive engagement, rather than general use. For university students, online platforms may offer emotional outlets when offline support is unavailable or limited. They may also facilitate the development of self-identity, peer connection, and access to coping-related information. Therefore, while social media is not inherently beneficial or harmful, its emotional impact appears to depend on usage patterns and social context. Promoting digital literacy, mindful engagement, and positive online interactions may enhance its regulatory benefits while minimizing potential harms.

2. Regression analyses revealed that five variables that were significant in influencing emotion regulation were 1) academic stress, 2) parenting style(authoritative), 3) regulatory emotional self-efficacy, 4) cognitive control, and 5) social media use.

2.1 Academic stress emerged as the strongest predictor of emotion regulation in the regression analysis ($\beta = 0.349$, $p < 0.001$). At first glance, this positive relationship might seem counterintuitive, as academic stress is commonly associated with emotional distress. However, this result may reflect the adaptive regulatory responses students develop when confronted with high academic demands. Faced with stressors such as exams, deadlines, and academic expectations, students may be prompted to activate problem-focused coping strategies (e.g., time management, help-seeking, cognitive restructuring), which in turn enhance their emotion regulation capacity.

However, this association should not be interpreted as indicating that more stress directly leads to better emotional functioning. Instead, students with stronger regulatory abilities are likely more capable of navigating stress constructively and preventing emotional depletion. This interpretation is supported by the Conservation of Resources (COR) theory proposed by Hobfoll (1989), which posits that stress arises when individuals perceive a threat to or loss of valued resources. Emotion regulation functions as a key psychological resource, allowing students to preserve energy, manage negative affect, and recover from pressure. Therefore, the observed



positive beta coefficient may capture the effectiveness of regulatory competence as a protective mechanism, rather than a direct benefit of stress itself.

This view is empirically reinforced by Sari et al. (2020) and Teixeira et al. (2022), who found that students with higher emotional regulation capacity tend to experience lower levels of academic stress and adopt more adaptive coping strategies. Their findings suggest that the observed positive predictive effect may reflect the protective role of emotion regulation in high-pressure academic environments, rather than a linear benefit of stress itself. Therefore, the results highlight the importance of cultivating students' regulatory skills to help them maintain emotional balance and resilience amid academic challenges.

2.2 Authoritative parenting style significantly predicted higher levels of emotion regulation ($\beta = 0.314$, $p < 0.001$). This result highlights the continuing influence of early family environments on emotional development in young adulthood. Authoritative parenting is characterized by a balance of warmth, responsiveness, and clear expectations, which supports the development of emotional understanding and communication in children. Campos et al. (2004) described this effect as the creation of a “family emotion regulation template”, a stable pattern of emotion socialization that children internalize and draw upon in later life.

In the context of university life, where students often experience increased autonomy and separation from family for the first time, this emotional template can provide an internalized framework for managing stress, forming healthy peer relationships, and navigating academic demands. However, these skills are not always directly transferable; students may need to adapt family-learned emotional strategies to new social contexts, such as diverse peer groups, romantic relationships, or institutional settings. This perspective is supported by Morris et al. (2013), who emphasized that family-acquired emotion regulation strategies continue to influence functioning in new interpersonal and institutional environments. Those who lack such foundational support may struggle more in regulating emotions effectively.

Therefore, universities play a crucial role in bridging this gap by helping students recognize and translate early emotional competencies into the demands of independent academic life. This could be achieved through programs that promote self-awareness, peer mentoring, emotional communication workshops, or access to counseling services. Recognizing the enduring impact of family-based emotional development can inform more inclusive educational strategies that support both students with and without strong emotional foundations from home.

2.3 Regulatory emotional self-efficacy significantly predicted emotion regulation ($\beta = 0.254$, $p < 0.001$), indicating that students' confidence in their ability to manage emotional experiences plays a direct role in shaping how they cope with stress and interpersonal challenges.



Students with high emotional self-efficacy are more likely to adopt adaptive regulation strategies, such as cognitive reappraisal, emotional acceptance, or seeking social support, while those with low self-efficacy tend to rely on maladaptive approaches such as avoidance, rumination, or suppression. This finding is consistent with the work of Caprara et al. (2008), who emphasized that regulatory emotional self-efficacy is a key motivational resource that drives individuals toward constructive behavioral patterns. In their research, self-efficacy not only influenced the likelihood of strategy selection but also helped buffer emotional reactivity by fostering a sense of control and resilience. As they put it, self-efficacy drives adaptive behavior, particularly under emotionally demanding conditions.

These results have important implications for educational practice. Universities should consider developing targeted interventions that enhance students' regulatory self-efficacy. For instance, peer-led support groups where students share successful emotional coping strategies can normalize healthy expression and create a sense of belonging. Mentorship programs, in which senior students model emotional resilience and provide feedback to first-year students, may also help build confidence in self-regulation. Embedding self-reflective activities such as emotional journaling or structured feedback within the curriculum could further reinforce students' belief in their capacity to handle emotional difficulties, supporting both academic success and psychological well-being.

2.4 Cognitive control was a significant predictor of emotion regulation ($\beta = 0.119$, $p < 0.01$), suggesting that students with stronger executive functioning skills, such as working memory, attention regulation, and inhibitory control, are better equipped to maintain emotional stability in the face of stress. These cognitive mechanisms allow individuals to inhibit impulsive reactions, redirect attention away from negative stimuli, and reappraise stressful situations. For instance, students with high cognitive control may be able to suppress intrusive thoughts during exams and focus on problem-solving, thereby reducing test-related anxiety. This finding supports the "executive function involved in emotional regulation" model proposed by Hendricks and Buchanan (2016), which highlights how cognitive flexibility and self-regulation work in tandem to manage emotional responses. When executive functioning is impaired, whether due to cognitive overload or environmental stressors, emotional regulation may deteriorate as a result.

In the context of university education, institutional factors can significantly influence students' cognitive resources. High academic workloads, vague assessment criteria, and teaching styles that provoke anxiety rather than engagement may tax students' executive functioning, making it more difficult to regulate emotions effectively. Conversely, well-structured courses, clear expectations, and emotionally supportive instruction may help students conserve cognitive energy and maintain emotional resilience. This is consistent with Best and Miller (2010), who



emphasized that structured and emotionally supportive learning environments contribute to the development and preservation of executive function, thereby enhancing students' capacity for emotional self-regulation.

2.5 Social media use was a significant but weak predictor of emotion regulation ($\beta = 0.093$, $p < 0.05$). This finding suggests that although the overall impact of social media may be modest, its influence on emotional functioning can be positive when usage is moderate and purposeful. For instance, instrumental social interaction, such as using online platforms to seek academic advice, maintain supportive friendships, or express emotions constructively, may provide students with a sense of connection and validation, indirectly supporting their emotional regulation. This interpretation aligns with Fokker et al. (2021), who emphasized that “the usage scenario determines the direction of influence.” In other words, social media is not inherently helpful or harmful; rather, its emotional impact depends on how, why, and how much it is used. Excessive use, passive browsing, or exposure to toxic online environments may harm emotional well-being, while intentional, community-based engagement can offer psychological benefits.

From an educational management perspective, these findings highlight the importance of helping students develop digital literacy and mindful usage habits. Universities can play an active role by promoting workshops or campaigns that raise awareness about the emotional effects of different usage patterns. Additionally, institutions can offer university-sanctioned platforms for constructive social and academic interaction, provide counseling resources for digital stress, and encourage students to reflect on their online behavior as part of emotional development curricula. Rather than discouraging social media use altogether, educational strategies should focus on guiding students toward emotionally beneficial and socially meaningful engagement.

Recommendation

1. General Advice

1.1 Universities should establish structured programs to help students cope with academic stress and enhance emotional resilience. These programs may include workshops on cognitive restructuring, time management, and emotion regulation strategies, as well as peer-support groups that offer shared coping experiences. Integrating emotional regulation awareness into regular academic courses can further support students' long-term stress management and well-being.

1.2 Parent education initiatives should be promoted to encourage authoritative parenting practices, which combine emotional support with consistent discipline. Universities can offer practical training on emotional communication and provide personalized feedback to parents



based on students' emotional assessments. These efforts can enhance home-school collaboration and foster a supportive family environment that contributes to students' emotional development.

1.3 To strengthen students' regulatory emotional self-efficacy, universities can introduce targeted training modules featuring activities such as role-playing, emotional journaling, and guided reflection. These approaches help students build confidence in their ability to manage emotions during challenging situations. Such training can be incorporated into both classroom teaching and co-curricular activities to ensure continuity and reinforcement across learning settings.

1.4 Cognitive control can be improved through general education initiatives that incorporate attention training, mindfulness exercises, and working memory development. Digital tools such as gamified training platforms may also be used to support the development of executive functioning skills. To ensure effectiveness, universities should consider integrating these elements into existing learning systems and providing appropriate technological and instructional support.

1.5 To mitigate the emotional risks associated with social media use, universities should offer digital literacy education that addresses emotional well-being, screen time awareness, and responsible online behavior. Additionally, promoting offline engagement through student clubs, community service, and campus-wide "screen-free" campaigns can encourage healthier digital habits and provide students with meaningful alternatives for emotional expression and social connection.

2. Suggestions for Further Research

Future research can further extend these findings in several focused directions. First, given the unexpected positive correlation between academic stress and emotion regulation, future studies could explore how moderate academic stress may be harnessed to enhance students' emotional regulation skills. This includes examining potential mechanisms, such as cognitive appraisal or stress mindset, that help transform academic pressure into an opportunity for emotional growth and resilience.

Second, the weak but positive link between authoritarian parenting and emotion regulation calls for deeper exploration of cultural factors, such as filial piety or interdependent self-construals, that may shape students' interpretations of parental control in the Chinese context.

Third, qualitative or mixed-method approaches are encouraged to uncover students' lived emotional experiences, offering valuable insights for developing culturally sensitive and student-centered interventions.





Fourth, future studies might examine how personality traits or peer relationships interact with parenting styles to influence emotion regulation, enabling more personalized and targeted support strategies.

Fifth, expanding the sample to include students from vocational, postgraduate, or non-elite institutions could improve the generalizability of findings and support more inclusive education policies.

Finally, future research should focus on designing and testing intervention programs, while also evaluating their feasibility, scalability, and cost-effectiveness to ensure practical implementation across university settings.

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