The Role of Self-Esteem in Predicting Parent-Child Relationships and Students' Emotion Regulation: A Structural Equation Modeling Approach

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Abstract. Adolescents with risky behaviors often struggle to regulate their emotions adaptively. Emotion regulation is essential for helping adolescents evaluate and respond to emotional situations in a healthy manner. Parent-child relationships and self-esteem have been found to influence these regulation abilities. This study aimed to examine whether self-esteem mediates the relationship between adolescents' perceptions of parent-child relationships and their use of emotion regulation strategies. This quantitative research involved 214 junior high school students identified with tendencies toward risky behavior, using a cross-sectional design and convenience sampling. Data were analyzed using Structural Equation Modeling (SEM) with IBM AMOS 24. The results showed that self-esteem partially and fully mediated the relationship between parent-child relationships and emotion regulation strategies, including Cognitive Reappraisal and Expressive Suppression. These findings highlight the significance of enhancing family-based interventions and fostering adolescent self-esteem to support effective emotion regulation, particularly for those at risk of maladaptive behavior.

Keywords: Emotion regulation, Parent-child relationship, self-esteem, junior high school students, risky behavior

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Introduction

Early adolescents, especially junior high school students, are generally in the age range of 12-15 years. During this period, various significant changes occur, including physical, cognitive, and emotional changes (Paris et al., 2019; Santrock, 2019). Cognitively, early adolescents are beginning to be able to reason systematically, think abstractly, and consider various perspectives (Steinberg, 2020). This stage, which is characterized by erratic and varying emotions, is sometimes referred to as the "storm and stress" phase (McLaughlin et al., 2015; Santrock, 2019). This condition demonstrates that early adolescents should be able to understand an effective emotion regulation in order to cope with the emotional shifts they go through. Previous studies have found that emotion regulation can have an effect on junior high school students who face these challenges (Septiawan et al.,2020).

Emotion regulation is the ability of a person to control, communicate, and affect their feelings (Gross & Ford, 2024). Based on this understanding, it can also be explained that emotion regulation is an individual's skill in managing their emotions including the process of recognizing the types of emotions felt, strategies for managing them, and also showing their emotions such as reducing, maintaining, or increasing these emotions. This skill is one of the essential components in adolescent emotional development.

Emotion regulation has adaptive functions that are very beneficial in many aspects of life, especially in the context of junior high school education (Santrock, 2019; Weiss et al., 2015). Junior high school students who have good emotional regulation are able to think carefully before acting, have a positive self-image on themselves, and prevent themselves from giving up easily (Adisti, 2017; Widyadari & Fitriani, 2023). On the other hand, junior high school students with poor emotional regulation will find it difficult to handle issues, which leads them to participate in risky behaviors like aggressive behavior, deviant sexual behavior, poor eating habits, unhealthy lifestyles, suicidal thoughts, and signs of depression (Adinda & Prastuti, 2021; Aisyaroh et al. 2022; Betts et al., 2009;

Lanfredi et al., 2021; Rodhiyah & Djuwita, 2023; Singh, 2023; Thohar, 2018; Young et al., 2019).

Several previous studies have shown that junior high school students have relatively good emotion regulation (Nafisah et al., 2021; Amalia, 2023; Septiawan et al., 2020). However, these studies did not specify the characteristics of their subjects, requiring caution in drawing general conclusions. Although the majority of adolescents demonstrate adequate emotion regulation skills, not all junior high school students possess these skills equally. In particular, students engaged in risky behaviors—such as truancy, smoking, bullying, fighting, stealing, or even experiencing depression and suicidal ideation—often face greater difficulties in managing their emotions (BKKBN, 2023; Khuda, 2019; Yadlosky et al., 2023). In contrast to previous studies, the present research deliberately focuses on students with risky behavior to better understand the specific mechanisms affecting their emotion regulation.

The risky behavior is based on the definition of Gullone and Moore (2000). Some examples of risky behavior in junior high school students who are included in the adolescent group include: disobeying rules/norms, smoking, skipping class, behaving aggressively, bullying, stealing, brawls, depression, and suicidal ideation (BKKBN, 2023; Gullone & Moore, 2000; Khuda, 2019; Mestre et al., 2017; Setiawan, 2016). Risky behaviors can also be classified into two: internalizing and externalizing behaviors. Externalizing behaviors include actions that are visible and disruptive to the environment, such as truancy, brawling, oppositional behavior, and others. Meanwhile, internalizing behaviors are more hidden and relate to personal emotional issues, such as anxiety, sadness, and loss of interest. Although these two types of behavior are considered distinct, some children and adolescents can experience both at the same time (Olivier et.al., 2020)

Risky behaviors among adolescents have increasingly become a national concern in Indonesia, with reports indicating a rise in truancy, school violence, substance use, and self-harm among junior high school students (BKKBN, 2023). National surveys and educational reports have highlighted that emotional and behavioral problems are not only prevalent in major urban areas but are also emerging in smaller regions. In Central Java, including districts such as Purworejo, schools have reported growing incidents of aggression, bullying, and frequent disciplinary referrals, suggesting that emotional regulation difficulties are not an isolated phenomenon.

In this context, Purworejo was selected as the research site based on preliminary reports from school counseling services indicating a growing number of students involved in risky behaviors. A preliminary survey conducted in early 2024 across several junior high schools in Purworejo identified 32 students frequently referred for issues such as truancy, aggression, or violation of school norms. Using a standardized emotion regulation scale, the survey revealed that most of these students demonstrated moderate to low levels of emotion regulation. These findings underscore the need to further examine the emotional mechanisms among adolescents at risk in this specific setting.

This study identifies several factors that influence emotion regulation in junior high school students. These factors are divided into two, namely internal and external factors. The internal factor in this study is self-esteem. Self-esteem is an individual's assessment of their self-worth (Rosenberg, 1965). Studies show that individuals with high self-esteem tend to be more able to manage their emotions effectively, while those with low self-esteem often choose ineffective strategies (Matthews et al., 2021; Shafir et al., 2017).

Based on the Bioecological system theory, that individual development can be influenced by the intermediate environment (microsystem). One of the microsystems is the parent (Yang & Eunjoo Oh, 2024). Parent-child relationships as an external factor is considered to provide an emotional foundation for early adolescents in developing emotion regulation skills through daily interactions (Morris et al., 2018). Positive parent-child relationships are correlated with the development of good emotion regulation, reducing the potential for maladaptive behavior in adolescents. Conversely, negative parent-child relationships may inhibit emotion regulation skills. (Branje et al., 2008; Burke et al., 2021).

Self-esteem plays a significant role in how adolescents regulate emotions. Individuals with higher self-esteem tend to manage their emotional responses more effectively and are generally more resilient and optimistic (Martinsen et al., 2016). Several studies have demonstrated that higher self-esteem is positively associated with the use of adaptive emotion regulation strategies, such as cognitive reappraisal, and negatively associated with maladaptive strategies, like avoidance or suppression (Shafir et al., 2017; Gomez et al., 2018). Students with higher self-esteem are more capable of handling stress and school-related challenges through more constructive emotional responses.

Parental relationship quality is a key predictor of adolescents' self-esteem. During early adolescence a period marked by developmental transitions students' self-worth may fluctuate. A warm and supportive relationship with parents builds the foundation for healthy self-evaluation (Santrock, 2019). Research shows that strong parent–child bonds enhance children's self-appreciation and positive self-image, whereas conflictual or distant relationships may

undermine their self-esteem (Tian et al., 2018; Fajrien, 2022). Longitudinal findings also emphasize that the quality of both paternal and maternal relationships independently contributes to adolescent self-esteem, with greater impact observed when both parents are consistently involved (Bulanda & Majumdar, 2009).

According to Bowlby's Attachment Theory (1971), the quality of the parent-child relationship plays a foundational role in shaping a child's internal working model, which influences both their self-concept (including self-esteem) and emotional development. Supporting this perspective, Tian et al. (2018) demonstrated that self-esteem serves as a mediating variable in the relationship between parent-child relationships and adolescents' resilience. Given that resilience reflects adaptive responses to emotional and psychological challenges, and has significant conceptual overlap with emotion regulation (Gross, 2015), it can be reasoned that the same mediating mechanism may apply. Specifically, a supportive parent-child relationship can foster a positive sense of self-worth in adolescents, which in turn enhances their capacity to regulate emotions effectively. Conversely, negative or conflictual relationships with parents may undermine self-esteem and consequently impair emotion regulation. Therefore, this study posits that self-esteem serves as a psychological mechanism through which the quality of parent-child relationships influences adolescents' emotion regulation abilities.

Self-esteem is shaped through early relational experiences, particularly with parents, and reflects an adolescent's internal evaluation of self-worth. A positive parent–child relationship can foster higher self-esteem, which in turn contributes to better emotional functioning. Adolescents with high self-esteem are generally more confident in managing emotional experiences and are more likely to use adaptive strategies in regulating emotions. This study is grounded in Gross' (1998) emotion regulation model, which outlines processes such as cognitive reappraisal and expressive suppression (John & Eng, 2014), providing a conceptual basis for examining how relational factors and self-concept influence emotional regulation. Accordingly, this study aims to investigate the mediating role of self-esteem in the relationship between parent–child relationships and emotion regulation among junior high school students engaged in risky behaviors.

Methods

Design

This study adopted a quantitative design to examine the mediating role of self-esteem in the relationship between parent-child relationships and emotion regulation among junior high school students engaged in risky behaviors. Data were analyzed using Structural Equation Modeling (SEM) to test both the measurement and structural models. This approach allows for the examination of complex relationships between variables, including indirect effects through mediators.

Procedure

This research used a survey technique using Google Form which was distributed through the Whatsapp group. Researchers conducted a licensing process to several schools in Purworejo. The distribution of questionnaires through the Whatsapp group was assisted by guidance and counseling teachers who had previously coordinated with the school principal and had been given permission. The instruments in this study used three scales, namely the emotion regulation scale (10 items), parent-child relationships (30 items), and self-esteem (10 items).

Researchers screened appropriate respondents by providing initial screening on Google Form, so that respondents who did not fit the inclusion criteria would automatically not be able to continue filling out the questionnaire. The study's inclusion requirements are that students between the ages of 12 and 15, must live with their parents or a substitute parent, and they must have engaged in risky behavior (the Google Form offers a variety of options).

Participants

Table 1
Participant Demographics

Characteristics	f	%
Age		
12 years	14	7
13 years	79	37
14 years	92	43
15 years	29	13
Gender		
Male	87	40
Female	127	60
Grade		
VII	90	43
VIII	98	45
IX	26	12
Total	**214**	**100**

The respondents involved in this study amounted to 214 students, which was done by convenience sampling technique. Sample size was determined via a Monte Carlo simulation based on prior studies, indicating that N = 51 is sufficient to achieve a statistical power of 0.80 with our model structure and parameter estimates. Additionally, although SEM literature typically recommends 200–400 cases for stability (N ≥ 200) (Singh et al., 2016).

The age characteristics of the research subjects were dominated by participants aged 14 years, as many as 43%. Based on gender, 60% were female and participants from class IX were the least participants.

Instrument

Parent-child relationship

The measuring instrument used to measure the parent-child relationship variable is the Network of Relationship Inventory-Relationship Quality Version (NRI-RQV) from Furman and Buhrmester (2008) which was used in the Indonesian version by Suprapto et al., (2023). The NRI-RQV consists of 30 items and has 10 dimensions where five dimensions represent positive relationships such as: companionship, intimate disclosure, emotional support, approval, and satisfaction (e.g., "How happy are you with your relationship with mother/father?") and five represent negative relationships such as: conflict, criticism, pressure, dominance, and exclusion (e.g., "How often do mother/father not include you in activities?"). The NRI-RQV uses a Likert scale with five response options ranging from 1 (Never) to 5 (Always). The NRI-RQV demonstrated good internal consistency (Cronbach's alpha = .784). In addition, confirmatory factor analysis (CFA) was conducted to examine the construct validity. The model fit indices indicated an acceptable fit: χ^2 = 894.614, GFI = .777, CFI = .952, NFI = .918, SRMR = .040, RMSEA = .038. All factor loadings were above .40, supporting the convergent validity of the scale.

Self-esteem

The measuring instrument used to measure the self-esteem variable is the Rosenberg Self-Esteem Scale (RSES) from Rosenberg (1965) which has been used by Fajrien (2022). RSES consists of 10 items and has two dimensions, namely self-liking and self-competence (e.g., "On the whole, I am satisfied with myself" and "At times I think I am no good at all"). The RSES uses a Likert scale with four response options ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). The RSES has good reliability with a Cronbach alpha score of .970. The scale showed excellent reliability, with a Cronbach's alpha of .970. CFA was also performed, and the results confirmed a good model fit: χ^2 = 104.949, GFI = .909, CFI = .983, NFI = .979, SRMR = .097, RMSEA = .083. All factor loadings exceeded .40, indicating good construct validity.

Emotion Regulation

The measuring instrument used to measure emotion regulation variables is the Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA) from Gullone & Taffe (2012) which has been used by Wiyatama (2022). The ERQ-CA consists of 10 items and has two dimensions, namely cognitive reappraisal (e.g., "When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about") and expressive suppression (e.g., "I control my emotions by not expressing them"). The ERQ-CA uses a Likert scale with five response options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The scale showed good reliability, with a Cronbach's alpha of .807 for CR and .798 for ES. The CFA results indicated a good model fit: χ^2 = 57.041, GFI = .953, CFI = .988, NFI = .978, SRMR = .024, RMSEA = .045. All item loadings were above .40, providing evidence of strong construct validity.

Data Analysis

Data analysis was conducted using Structural Equation Modeling (SEM) with IBM SPSS AMOS 24 to examine the hypothesized mediation model involving the role of self-esteem in the relationship between positive and negative parent-child relationships and emotion regulation, which comprises cognitive reappraisal and expressive suppression. The SEM analysis comprised two components: the measurement model and the structural model. The measurement model was evaluated to confirm the validity and reliability of the latent constructs—positive parent-child relationship, negative parent-child relationship, self-esteem, and emotion regulation—based on their observed indicators. Subsequently, the structural model was assessed to test the hypothesized causal relationships among these latent variables. The model included directional paths from positive and negative parent-child relationships (as exogenous variables) to self-esteem (as a mediating variable), and from self-esteem to emotion regulation (as the outcome variable). As the data were based on 5-point Likert scales, they were treated as continuous, and univariate normality was confirmed through skewness and kurtosis values within acceptable ranges (±2). Therefore, maximum likelihood estimation and Pearson correlations were applied (Kline, 2012). Model fit was evaluated using several fit indices: Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Following the criteria recommended by Hu & Bentler (1999), model fit is considered acceptable when GFI, CFI, and NFI values are ≥ .90, RMSEA ≤ .08 and SRMR is ≤ .08.

Results and Discussion

Results

Based on the description of the research results, there are differences in the average of each variable studied, namely emotion regulation, Cognitive Reappraisal

(CR) and Expressive Suppression (ES), self-esteem, and parent-child relationships (positive and negative). CR has a greater value than ES, while the negative parent-child relationship has a lower value than the positive parent-child relationship (see Table 2).

Normality tests were conducted using skewness and kurtosis indicators. The results showed that three variables—Cognitive Reappraisal, Expressive Suppression, and Self-Esteem—had skewness and kurtosis values exceeding the acceptable threshold of ±2 (Kline, 2012), indicating violations of univariate normality. In contrast, Positive and Negative Parent-Child Relationships were within acceptable limits. Despite these deviations, parameter estimation was carried out using Maximum Likelihood (ML), which remains robust for large sample sizes ($n > 200$) according to West et al. (1995) and further supported by Schmidt and Finan (2018), who argue that normality violations have minimal impact on parameter estimates in large samples. To further ensure the accuracy of standard errors and p-values, bootstrapping procedures were applied, thereby increasing the robustness of the analysis despite the presence of non-normality.

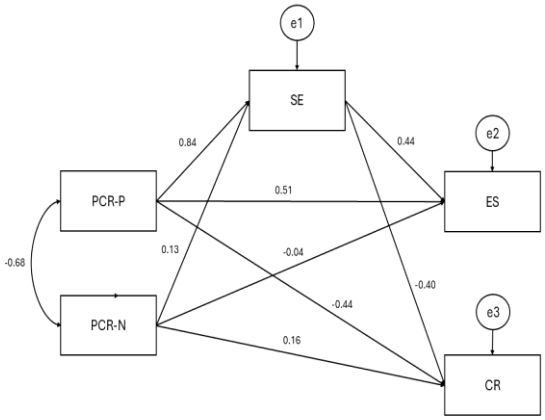
Table 2
Descriptive Statistics

	Mean	SD	Skewness	Kurtosis
Cognitive Reappraisal (CR)	26.49	5.08	-2.73	6.366
Expressive Suppression (ES)	5.95	3.53	2.78	6.709
Self-esteem (SE)	44.53	8.56	-2.6	5.771
Positive Parent-Child Relationship (PCR-P)	31.86	16.11	1.3	.757
Negative Parent-Child Relationship (PCR-N)	31.42	14.79	1.26	1.023

** SD= standard deviation*

The hypothesized mediation model demonstrated a good overall fit to the data. This is supported by absolute fit indices, including $\chi^2 = 466.075$, the Standardized Root Mean Square Residual (SRMR = .013) and RMSEA = .063), which fall within acceptable thresholds. Additionally, incremental fit indices such as the Goodness of Fit Index (GFI = .929), the Comparative Fit Index (CFI = .973), and the Normed Fit Index (NFI = .972) further confirm the model's adequacy. These results indicate that the proposed model sufficiently represents the relationships among the observed variables and can be reliably used to examine the hypothesized mediation effects.

Path analysis (Figure 1) showed that positive parent-child relationship had a significant influence on self-esteem (β = .838, p < .001) and CR (β = .506, p < .001), but was negatively related to ES (β = -.440, p < .001). In contrast, negative parent-child relationship had no significant effect on self-esteem (β = -.130, p = .144) and CR (β = -.044, p = .144), but had a positive influence on ES (β = .159, p < .001). Self-esteem positively affects CR (β = .444, p < .001) and negatively affects ES (β = -.395, p < .001). That means self-esteem is able to mediate the positive parent-child relationship with CR and ES and the negative parent-child relationship with ES partially. Self-esteem was also found to fully mediate the negative parent-child relationship with CR.



**PCR-P : Parent Child Relationship (positive), PCR-N : Parent Child Relationship (negative), SE: Self-esteem, CR : Cognitive Reappraisal, ES : Expressive Suppression*

Figure 1. Path Analysis of Mediation Model

Furthermore, Table 3 shows the indirect effects of parent-child relationship on CR and ES through self-esteem. The analysis showed that a positive parent-child relationship significantly increased CR (β = .373, p < .001) and reduced ES (β = -.331, p < .001) through SE. In contrast, a negative parent-child relationship significantly decreased CR (β = -.058, p < .001) and increased ES (β = .051, p < .001) through SE. These results confirmed the important role of self-esteem as a mediator in the relationship between parental relationship dynamics and children's emotion regulation.

Table 3
Indirect Effect

Indirect Path	*β*	*95% CI*		*SE*	*p*
		Lower	*Upper*		
PCR-P → SE → CR	.373	.306	.443	.042	<.001
PCR-P → SE → ES	-.331	-.433	-.235	.061	<.001
PCR-N → SE → CR	-.058	-.085	-.035	.015	<.001
PCR-N → SE → ES	.051	.028	.084	.017	<.001

Discussion

Gross's (1998) emotion regulation model, which describes the five primary steps in the emotion control process context selection, scenario alteration, emotion dissemination, cognitive assessment, and response modulation supports this study paradigm. Gross makes a distinction between emotion management techniques that are response-focused and antecedent-focused. Antecedent-focused emotion regulation includes situation selection, situation modification, attentional deployment, and cognitive change, while response-focused (response modulation) is like expressive suppression (Gross, 2008). Junior high school students with risky behaviors are likely to show low CR and high ES in emotion regulation (John & Eng, 2014; Kelley et al., 2019). In this model, the parent-child relationship contributes to the process of situation regulation while self-esteem develops an individual's cognitive appraisal which ultimately affects CR and ES of students with risky behavior.

The relationship between parents and children is very influential on the development of children, especially during adolescence (Nugraha & Sairah, 2024). According to the study's findings, it shows that positive parent-child relationships (as perceived by children) can play a role in the use or selection of positive CR emotion regulation strategies in junior high school students who engage in risky behavior. If the child's perception of the parent-child relationship is getting better, CR in junior high school students with risky behavior will also increase. On the other hand, children's use of greater ES will be impacted if they believe that their relationship with their parents is poor or unpleasant.

Positive parent-child relationships are characterized by high levels of parental acceptance, openness and responsiveness. It can provide opportunities for children to learn adaptive emotion regulation, and it can even happen in childhood. (Morris et al., 2018; Ratliff et al., 2023). In parent-child relationships described by negative closeness can predict the use of ES (Wylie et al., 2023). This means that children can learn adaptive or or non-adaptive emotion regulation strategies through their parents.

Furman and Buhrmester (1985) state that the child-parent relationship is one that is closely related to good socio-emotions and adaptation. Parents are seen as an important source for many of the child's social provisions. Parents (mother and father) are the main ones in providing four things, namely affection, a reliable figure, helping to increase self-esteem, and instrumental assistance including in managing emotions.

Based on the results of the indirect effect test with self-esteem as a mediator, it was found that the relationship between positive parent-child relationships and student emotional regulation with risky behavior formed a partial mediation pattern. Partial mediation occurs when the mediator variable explains part (not all) of the influence of the independent variable on the dependent variable, so there is still a significant direct influence between the independent and dependent variables. Self-esteem can be a mediator between parent-child relationships and emotional regulation, but without self-esteem, parent-child relationships can still affect students' emotional regulation with risky behavior. In the dimension of negative parent-child relationships and students' emotion regulation with risky behavior through self-esteem, it forms a full mediation pattern in CR and partial in ES.

Nevertheless, this study found that the negative parent-child relationship did not exhibit a significant direct effect on self-esteem and CR. This finding may be attributed to adolescents' perceptions of their relationship with their parents, which were generally low in terms of negativity. This aligns with the characteristics of collectivist cultures such as Indonesia, where parent-child relationships are not always emotionally expressive but are often maintained in a normative and functionally positive manner (Morris et al., 2018). Consequently, the influence of negative parent-child relationships on emotion regulation may not manifest directly but rather operates indirectly through mediating mechanisms such as self-esteem.

The results of this hypothesis test are in line with the results of research by Shi et al. (2022). Self-esteem in the study successfully mediated in part (partial mediation) the effect of parent-child relationships on emotional disorders on adolescent (Shi et al., 2022). This indicates that positive parent-adolescent relationships and high self-esteem contribute to fewer emotional behavior problems in adolescents.

Parent-child relationships indirectly influence CR and ES through self-esteem. These results suggest that self-esteem mediates the effect of positive parent-child relationships on the emotion regulation of students with risky behavior. The better the parent-child relationship, the child's self-esteem increases, which in turn increases CR and decreases ES in students with risky behavior. The same is true for negative parent-child relationships. Self-esteem can mediate the effect of negative parent-child relationships on children's emotion regulation. The worse the relationship between parents and children, the child's self-esteem decreases, which in turn decreases CR and increases ES in students with risky behavior.

Adolescents who have a good relationship with their parents tend to have a positive view of themselves (Cai et al., 2021), be upbeat about life, actively adapt and overcome challenges, and be less prone to internalize or externalize issues (Shi et al. 2022).

Adolescents who do not choose internalizing or externalizing behaviors have adaptive emotion regulation (Cai et al. 2021; Moltrecht, 2020). This may explain why self-esteem can also mediate the effect of parent-child relationship on emotion regulation of junior high school students with risky behavior. Junior high school students with risky behavior who have a good relationship with their parents will be easier to get support so that their sense of worth remains or even develops, besides that they can also learn from their parents about dealing with emotional situations. On the other side, if children feel insecure, they may feel less valuable and ultimately affect their ability to learn emotion regulation strategies and tend to develop ES, where the continued use of ES will lead to problems (Brenning & Braet, 2012).

The limitations of this study include using a cross-sectional design, which makes it unable to fully capture the dynamics of emotion regulation in depth from the beginning to the end of junior high school. In future research, it might be better if this study uses a longitudinal design so that researchers can examine the development of emotion regulation from respondents during junior high school. Another limitation in this study is the use of convenience sampling in the sampling method, which means that the results of this study cannot be used on other subjects that were not studied. There is still a lack of knowledge on the dynamics of these particular behaviors because this study included a variety of risky behaviors and did not concentrate on any one of them.

Based on the research findings, there are practical suggestions that can be made, such as the collaboration of school members and parents in creating a supportive environment by organizing workshops or information sessions for parents and junior high school students about the importance of open communication and its influence on students' emotional regulation and self-esteem. In addition, it can also invite parents to be more actively involved in school activities and provide positive support for students' academic achievement and emotional development.

Conclusion

This study demonstrates that the emotional regulation of junior high school who engage in risky activities is significantly influenced by parent-child connections. While negative relationships tend to increase expressive suppression (ES), positive relationships which are defined by parental acceptance, openness, and responsiveness contribute to the employment of more adaptive emotion regulation mechanisms, particularly cognitive reappraisal (CR). In this relationship, self-esteem serves as a mediator; favorable parent-child relationships boost self-esteem, which in turn improves CR and lowers ES. These results highlight how crucial parents and self-esteem are in helping adolescents develop healthy emotion regulation abilities, which can then enable them to deal with emotional and social difficulties more effectively.

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Author Contributions

All authors contributed equally to the conceptualization, methodology, data collection, data analysis, original draft preparation, and review and editing of this manuscript.

Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Use of Artificial Intelligence

Artificial intelligence (ChatGPT 4) tools were used solely to assist in optimizing the English language expression of the manuscript. No AI technologies were used to generate data, conduct analysis, or perform any part of the scientific process.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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