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## **Sociodemographic and Clinical Characteristics of Participants in a Positive Emotion Regulation Intervention in Aceh, Indonesia: A Quasi-Experimental Study**

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### **Abstract**

Adolescence represents a significant stage of human development during which individuals are particularly susceptible to mental health challenges, including anxiety and depression. Various developmental changes, educational pressures, and social as well as emotional adjustments experienced during this period can increase the risk of psychological difficulties. The capacity for positive emotion regulation, which refers to effectively managing and

responding to emotional experiences in constructive ways, is considered a key factor in supporting psychological well-being and buffering the effects of stress. Therefore, interventions aimed at strengthening positive emotion regulation have gained increasing attention as effective promotive and preventive strategies to improve adolescent mental health and reduce the likelihood of anxiety and depressive symptoms.

**Keywords:** Positive Emotion Regulation, Adolescents, Mental Health, Anxiety, Depression, Quasi-Experimental Study

### **1. Introduction**

Adolescence is a transitional stage of development marked by profound biological, cognitive, psychological, emotional, and social transformations. Throughout this period, young people are required to adapt to numerous developmental tasks and environmental pressures that can influence their mental health status. Failure to adjust effectively to these changes may increase the likelihood of experiencing psychological difficulties, particularly anxiety and depression, which are among the most frequently reported mental health concerns in adolescent populations <sup>[1]</sup>.

Anxiety refers to a psychological condition characterized by persistent worry, nervousness, fear, and heightened tension that may disrupt daily activities and overall functioning. Meanwhile, depression is a mood disorder involving prolonged feelings of sadness, diminished interest in previously enjoyable activities, decreased motivation, hopelessness, and impairments in academic, social, and interpersonal domains <sup>[2]</sup>.

The growing incidence of anxiety and depression among adolescents has become a substantial public health issue worldwide. Reports from the World Health Organization (WHO) indicate that depressive and anxiety disorders rank among the leading contributors to illness and disability in young people. These conditions can adversely affect educational performance, social relationships, psychosocial development, and overall quality of life <sup>[3]</sup>.

Among the factors associated with adolescent mental well-being, emotion regulation has received considerable attention as a protective mechanism. According to Gross, emotion regulation encompasses the processes by which individuals observe, assess, and influence their emotional experiences and behavioral expressions in order to achieve desired outcomes and maintain psychological adjustment <sup>[4]</sup>. Adolescents who possess strong emotion regulation skills are generally better equipped to manage stressful situations, respond constructively to negative emotions, and sustain emotional well-being. In contrast, difficulties in regulating emotions have been linked to a greater risk of anxiety, depression, and a variety of emotional and behavioral disturbances <sup>[5]</sup>.

In recent years, interventions targeting positive emotion regulation have gained recognition as effective strategies for promoting mental health and reducing the risk of psychological disorders in adolescent populations. Such interventions are designed to strengthen individuals' capacity to identify, interpret, accept, and manage emotions in adaptive ways while

simultaneously fostering positive affect and resilience. Empirical evidence suggests that programs focused on positive emotion regulation can contribute to reductions in anxiety and depressive symptoms, enhance emotional well-being, and improve coping competencies among adolescents and young adults [6,7].

Considering the increasing burden of anxiety and depression among adolescents, as well as the critical role of emotion regulation in maintaining psychological health, further investigation is warranted to assess the effectiveness of positive emotion regulation interventions as preventive measures. Therefore, the present study was conducted to evaluate the effectiveness of a positive emotion regulation intervention in preventing anxiety and depression among adolescents.

**2. Methods**

This research utilized a quasi-experimental approach and was carried out at State Senior High School 1 Bandar Baru, located in Pidie Jaya Regency, between January 12 and January 24, 2026. The study involved 70 adolescent participants who were assigned to either the intervention group or the control group through a cluster random sampling procedure. Anxiety symptoms were evaluated using the Hamilton Anxiety Rating Scale (HARS), whereas depressive symptoms were assessed with the Beck Depression Inventory (BDI). The positive emotion regulation program consisted of seven intervention sessions administered to participants in the intervention group. Statistical analyses were performed using the Wilcoxon Signed-Rank Test, and a p-value of less than 0.05 was considered indicative of statistical significance.

**3. Results**

Demographic data collected from the participants included age, gender, and school grade. The frequency distribution of these variables is presented in Table 1.

**Table 1:** Frequency Distribution of Respondent Characteristics (n = 70)

No	Demographic Data	f	%
1	Age 18 Years	70	100
2	Gender		
	Man	34	48.6
	Woman	36	51.4
3	Grade XII	70	100

Based on Table 1, all participants were 18 years old and enrolled in Grade XII. The majority of participants were female, accounting for 36 respondents (51.4%).

**Table 2:** Pre- and Post-Test Differences in Anxiety and Depression Scores in the Intervention Group

Variables	Intervention Group (n = 35)			
	<i>Wilcoxon Signed-Rank</i>			
	Pre-test Median (IQR)	Post test Median (IQR)	Z	P
Anxiety	23 (1)	17 (1)	-5,194	0.0001
Depression	26 (1)	19 (1)	-5,184	0.0001

As shown in Table 2, participants experienced a reduction in anxiety levels after receiving the positive emotion regulation intervention, with the median score declining from 23 during the pre-test assessment to 17 at post-test. Analysis

using the Wilcoxon Signed-Rank Test revealed that this change was statistically significant (p < 0.001).

A similar pattern was observed for depression outcomes. The median depression score decreased from 26 before the intervention to 19 following its completion. The results of the Wilcoxon Signed-Rank Test confirmed a statistically significant difference between pre-test and post-test depression scores (p < 0.001)

**4. Discussion**

The results of the present study indicate that positive emotion regulation interventions may serve as an effective approach for reducing the risk of anxiety among adolescents. This finding aligns with the emotion regulation framework proposed by Gross, which highlights the importance of individuals' capacity to recognize, modify, and regulate emotional responses in minimizing maladaptive reactions to stressful situations [4]. The decline in anxiety scores observed after the intervention suggests that participants acquired more effective coping skills to deal with academic pressures, social challenges, and developmental demands. By engaging in activities such as recognizing emotions, accepting emotional experiences, reframing negative thoughts, and cultivating positive emotions, adolescents appeared to enhance their ability to respond adaptively to situations that trigger anxiety [5].

In addition, interventions focused on positive emotion regulation may promote healthier patterns of cognitive and emotional functioning. By encouraging greater attention to positive experiences, fostering self-awareness, and supporting more adaptive interpretations of stressful events, these interventions can contribute to enhanced psychological well-being. Such processes may also help alleviate depressive symptoms by strengthening emotional resilience and adaptive coping mechanisms [6].

The findings of this study are in agreement with the work of Bogaert, who reported that the enhancement of positive emotional experiences was associated with better psychological well-being and lower levels of depressive symptoms among adolescents [7]. Similarly, earlier studies have shown that structured emotion regulation programs can significantly improve adolescents' emotional regulation competencies, particularly among those experiencing emotional and psychological difficulties [9]. These results may also be explained through Aaron Beck's cognitive theory of depression, which proposes that transforming dysfunctional cognitive patterns and negative automatic thoughts into more adaptive ways of thinking can reduce depressive symptoms and improve mental health outcomes [8].

Taken together, the findings provide evidence that positive emotion regulation interventions have considerable potential as both promotive and preventive measures within school-based mental health initiatives. Integrating such interventions into educational settings may help support adolescents' psychological well-being while reducing the likelihood of anxiety and depression.

**5. Conclusion**

The results of this study indicate that positive emotion regulation interventions can effectively reduce the risk of anxiety and depression among adolescents. A significant improvement was observed, as evidenced by the reduction in both anxiety and depression scores after the intervention

was implemented. These findings highlight the potential value of positive emotion regulation programs as school-based mental health initiatives that promote psychological well-being and help prevent emotional disorders among adolescents.

## 6. Recommendation

Educational institutions are encouraged to incorporate positive emotion regulation training into existing guidance and counseling activities as a means of enhancing mental health support for students. Community health nurses and psychiatric nurses can contribute by designing and delivering structured school-based mental health promotion initiatives that emphasize the development of positive emotion regulation skills. Furthermore, future efforts should extend the implementation of these interventions to a wider adolescent population in order to promote psychological well-being and reduce the risk of mental health difficulties.

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