

Family Function and Depression on Junior High School Students: Does Emotional Regulation Mediate?

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Abstract: Junior high school students are in early adolescence, where sexual hormones are active and provoke emotional instability. Pubertal life challenges cause adolescents susceptible to depression. One of the factors that causes depression is family function. However, the influence of family function with depression is inconclusive. The capability to regulate their emotions determines adolescent depression levels. This study aims to examine the role of emotional regulation in mediating the influence of family function on depression levels in junior high school students. Three hundred and one junior high school students in Medan filled out the family function scale, emotional regulation scale, and Beck Depression Inventory-II. Data analysis using a mediation test with the Jamovi statistical software Version 4.2 showed that emotional regulation did not significantly mediate family function on depression. Family function directly affects depression levels in junior high school students. Family function impacts emotional regulation and emotional regulation influences depression levels. The results of the study are beneficial in compiling intervention programs to decrease students' depression levels by focusing on strengthening family function.

Keywords: Depression, Emotional Regulation, Family, Mediation, Student

1 INTRODUCTION

Junior high school students who are in puberty experience emotional turmoil and discomfort (Fortenberry, 2013). Sexual hormone activation marks the transition period from childhood to adulthood and induces several changes. Rapid physical growth and the emergence of sexual signs provoke unstable emotions and shocks to the adolescent's self-concept. Adolescents get interested in peers, especially the opposite sex, and strain their relations with their parents. Their cognitive development allows adolescents to think logically, critically, and hypothetically. It supports their moral development to view obedience and morality as a desire to be accepted and recognized by society. At once, adolescents acknowledge themselves and determine their values and life goals (Pikunas et al., 2014). Youths conform to peer norms, meet academic demands, foster healthy relationships, and navigate differences with teachers and parents. Teens with adequate resources can face these challenges, but those with lower personal and social competent may struggle more and are even vulnerable to mental health problems (Jiang et al., 2021). Prolonged interpersonal conflict and failure to meet school demands and parent expectations increase depression risks in adolescents (Fassl et al., 2025). Junior high school students are at greater risk of experiencing depression than students at other levels of education (Zhu et al., 2025). Depression is a mental disorder characterized by feelings of sadness, helplessness, disruption of lifestyle, and loss of interest (Shao et al., 2020). Adolescents with depression feel emptiness, blame themselves, and may have suicidal thoughts. They experience weight fluctuations and sleep problems. They also lose interest in daily activities, including hobbies they previously enjoyed. Their bodies constantly feel tired despite no physical activity draining energy. These symptoms interfere with adolescents' functioning in education, social, and work, and last for at least 3 months, then the condition meets the diagnosis of major depressive disorder (American Psychiatric Association, 2013). Depression in adolescents can lead to poor academic performance, absenteeism, and academic disengagement. Social withdrawal results in feelings of isolation and loneliness, while behaviour changes and negative emotions strain parent-teen relationships. It can also increase risk of risky sexual behaviour, substance abuse, dropping out, self-harm, and delinquency (Pozuelo et al., 2022). Depression lower

adolescents' quality of life, affecting their physical, psychological, social relations, and environmental well-being. They often feel unhappy, struggle with their potential, and experience academic difficulties. Additionally, depression hampers their ability to fulfill their developmental tasks to achieve emotional, career, and financial independence and to prepare for future sexual relationships and marriage (Pham et al., 2024). Statistical data shows that globally, 8% of adolescents experienced depression from 2001 to 2020 (Shorey et al., 2022). In 2016, 13% of students in America went through at least one episode of depression (Joshi et al., 2019). Adolescents aged 11-16 years old were 24.3% in 2018, and were 8.5% in 2022, showed symptoms of depression in China (Zhang et al., 2023). Other studies show that 32% of junior high school students in Thailand and 30.2% of in Jakarta suffer from depression (Rukkiat & Panitrat, 2024; Casey et al., 2021). In Indonesia, as many as 5.1% and 17.5% of adolescents in 2018 and 2023 had depression (Suryaputri et al., 2021; Juliansen et al., 2024). 12.6% of high school students in Jakarta and Sulawesi Utara, and 23.4% of dropout teenagers are experiencing depression (Pham et al., 2024).

Depression is related to the adolescents' family background (Zagefka et al., 2020). Adolescents from dysfunctional families are more likely to develop depressive symptoms. Hostile and conflictual families, with poor relationship quality and a lack of support and monitoring, result in adolescents who blame themselves, feel lonely, sad, and lack enthusiasm for life (Wang et al., 2021). Adolescents from low-functioning families are more likely to have suicidal thoughts and commit than other adolescents (Deng et al., 2022). Family functioning is related to adolescents' ability to cope with problems, adapt to environmental demands, and foster resilience (Collishaw et al., 2016). Furthermore, family functioning enhances adolescents' emotional regulation. A child's emotional regulation abilities are related to those of family members (Paley & Hajal, 2022). Several studies in Indonesia have examined the influence of family on depression in adolescents. Parental depression, child-parent communication, family satisfaction, not living with parents or living with only the father, and family economic status influence levels of depression (Mubasyiroh et al., 2024; Suryaputri et al., 2021; Wanudiya et al., 2024). However, Windarwati et al.'s (2020) research states that family harmony does not affect levels of adolescent depression. These results indicate that several factors influence the relationship between family functioning and depression, one of which is emotion regulation. Emotion regulation is striving to influence one's own or others' emotions (McRae & Gross, 2020). Individuals control emotional impulses to maintain a coherent and adaptive situation in stressful situations. Emotion regulation refers to an individual's ability to reflect on experiences, actions, and project the future. With good emotion regulation, individuals will be able to adapt to their environment. Emotion regulation negatively influences an individual's level of depression; higher levels of emotion regulation lead to lower levels of depression (Tartaro et al., 2024). Currently, there is research explaining how family functioning influences depression. Zhao et al. (2024) examined the mediating role of emotional intelligence in the relationship between family functioning and depression in Chinese adolescents. Yu et al. (2024) examined the role of self-evaluation in the relationship between family risk and depression in Chinese children left behind. LaMontagne et al. (2023) found that family conflict influenced depressive symptoms through the mediation of emotion regulation in Americans. However, such research is still limited in Indonesia. Jannah et al. (2022) examined the mediating role of self-esteem in the relationship between parenting and depression. Eka et al. (2025) examined how emotion regulation influences the relationship between family functioning and anxiety. No studies have examined the role of emotional regulation in mediating the influence of family functioning on depression in adolescents in Indonesia. Therefore, this study aims to investigate the mediating role of emotional regulation in the relationship between family functioning and levels of depression in adolescents.

2 MATERIALS AND METHODS

This explanatory quantitative study involved 301 junior high school students in Medan using a convenience sampling technique (Table 1). The researcher gave informed consent to the school and students before digitally distributing the research scale. This study used a family function scale, an emotion regulation scale, and the Beck Depression Inventory-II, which have good validity and reliability. The family function scale consists of 32 items measuring aspects of mutuality, harmony, communication, support, and parental control, which are adopted from the Chinese version validated in Indonesia (Lubis et al., 2023). Examples of family function scale items: My family members support each other, and My family member talk to each other. The 10- items emotional regulation scale compiled by Gross & John (2012) and has validated in Indonesia by Radde et al. (2021) consists of cognitive reappraisal and expressive suppression aspects. Examples of emotion regulation scale items: I control my emotions by changing my thought patterns according to the surrounding environmental situation, and I control my emotions by not expressing them. Beck Depression Inventory-II consists of 21 items that reveal aspects validated in Indonesia by Sorayah (2015). BDI-II reveals depression symptoms such as sadness, pessimism, past failures, loss of pleasure, guilt, feelings of punishment, self-dislike, self-criticism, suicidal thoughts or desires, crying, agitation, loss of interest, doubt, worthlessness, loss of energy, changes in sleep patterns, irritability, changes in appetite, difficulty concentrating, fatigue, loss of interest in having sex. Examples of BDI-II items: I always feel guilty, and If I have the opportunity, I will not hesitate to commit suicide. We analyzed data using a moderation test with Jamovi statistical software Version

4.2.

Table 1. Participant description (N= 301)

Identity	N	%
Sex		
Male	161	53.5
Female	140	46.5
Age		
12	89	29.6
13	111	36.9
14	81	26.9
15	20	6.6

3 RESULTS

We can see variable descriptive on following table 2.

Table 2. Data descriptive

Variable	Mean	SD
Family function	126	18.0
Emotional regulation	53.8	7.04
Depression	7.41	5.9

The researcher performed an assumption test before conducting a mediation test. The result showed that the research data met the requirements in Table 3.

Table 3. Assumption Test Result

Test	Normality	Linearity	Heteroscedastic	Multicollinearity	Autocorrel
Value	0.052, p= 0.200	F=1.0951 p= 0.398	p= 0.300 dan p= 0.12	T= 0.9841, VIF= 1.016	D=1.721
Conclusion	Normal	Linear	None	None	None

Table 4 shows that family function only significantly affects depression levels directly. Emotion regulation does not mediate the effect of family function on depression levels.

Table 4. Mediation Test Result

Effect	Estimate	SE	Z	p
Indirect	0.00829	0.00439	1.89	0.059
Direct	-0.07792	0.01819	-4.28	< 0.001
Total	-0.06962	0.01842	-3.78	< 0.001

Although the indirect effect showed no significant results, the path analysis showed that family function positively affected emotional regulation, and emotional regulation negatively affected depression level. The higher the family function, the higher the adolescent's emotional regulation. And the higher the emotional regulation, the lower the level of adolescent depression. We also conclude from Table 5 that the effect of emotional regulation (2.8%) is more than family function (0.6%) on the level of depression.

Table 5. Path Analysis Result

Path	Estimate	SE	Z	P
Family function → Emotional regulation	-0.0495	0.0223	-2.22	0.026
Emotional regulation → Depression	-0.1674	0.0466	-3.59	< 0.001
Family function → Depression	-0.0779	0.0182	-4.28	< 0.001

4 DISCUSSIONS

The results show that family functioning negatively influences depression levels. It aligns with Chen et al. (2023) and Huang et al. (2022), which found that high family functioning reduces depression levels in adolescents. Adolescents who grow up in harmonious families, emotionally attached, feel loved, and receive parental supervision are less likely to experience depression. Conversely, adolescents who feel insecure, lonely, rejected, neglected, and unsupervised are at risk of developing depressive symptoms. Research found that family functioning influences emotional regulation. A peaceful family environment, mutual support, effective communication, meeting needs, and providing guidance strengthen adolescents' ability to manage their emotions (Lin et al., 2024). Parental behaviour in minimizing conflict and resolving problems, expressing thoughts adaptively, and acting rationally serves as a role model for adolescents in managing their emotions (Edvoll et al., 2023).

The results also show that emotional regulation negatively influences depression levels. Adolescents who can manage their emotions are less likely to experience depression (Joormann & Stanton, 2016). Conversely, adolescents who struggle to regulate their emotions are at a higher risk of depression (Aldao et al., 2016). Adolescents who possess the capacity to cognitively reappraise adverse experiences are likely to experience a reduction in emotional intensity, thus diminishing the probability of developing pronounced feelings of sadness or hopelessness in response to such events (Shapero et al., 2018). Similarly, adolescents who are able to regulate the outward expression of negative emotions may avert interpersonal conflicts with peers and significant others, consequently reducing the risk of depressive symptomatology (Defayette et al., 2021). Adolescents with emotional dysregulation find it hard to reappraise situations and to suppress their expression. It leads to adolescents having negative feelings about their experiences and finding it difficult to move beyond them (Oliva et al., 2023).

This study finds that family function does not significantly influence the level of depression through the mediation of emotion regulation. In contrast to Lindblom et al. (2017), who found that parental caregiving influences depression levels through emotional regulation. Other research suggests that parental emotional expression influences adolescent depression levels through emotional regulation (Nurany et al., 2022). Meanwhile, Sylvia Chu Lin et al. (2024) found that family factors influence internalization through emotional regulation. The lack of evidence for a mediating role of emotional regulation in the relationship between family functioning and depression levels indicates that family functioning does not require emotional regulation to reduce depression levels. Well-functioning families directly minimize the risk of developing mood swings, sadness, and guilt. A peaceful, loving home atmosphere, emotional attachment, and parental guidance directly foster feelings of comfort and joy in adolescents. A well-functioning family serves as a source of happiness and protects adolescents from depressive symptoms.

This research is beneficial for addressing the problem of adolescent depression levels by improving family functioning and strengthening emotional regulation. However, this study has several limitations. First, the subjects were students from junior high schools in Medan using a non-random sampling technique. It implies that the data contains sample bias and does not represent students in Medan. Further research in other cities using random sampling techniques would be more convincing regarding the role of emotional regulation in the relationship between family functioning and adolescent depression. Research involving adolescents who are not in school could also enrich the study of variables. Second, the self-report usage retains social desirability bias, which can lead to faking good responses. However, researchers have attempted to minimize this bias by completing the questionnaire anonymously and guaranteeing confidentiality to subjects.

5 CONCLUSIONS

Emotional regulation does not significantly mediate the effect of family function on depression levels. The high family function does not require high emotional regulation as an intermediary to reduce depression levels. Family function significantly affects depression levels, meaning that the higher the family function, the lower the level of depression. Family function positively impacts emotional regulation, meaning that the higher the family function, the higher the adolescent's emotional regulation. Furthermore, emotional regulation negatively influences depression levels, meaning that the higher the emotional regulation, the lower the level of depression. The study is advantageous for adolescent counselors and educational counselors in dealing with depression problems in junior high school students. To reduce depression levels, counselors should encourage strengthening family function and adolescent emotional regulation simultaneously.

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