



Parental expressed emotions and depression among adolescents: The mediating role of emotion regulation

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Abstract: Adolescence is a phase in life that is prone to depression. Depression in adolescents can be influenced by their family context, which can involve high parental expressed emotions and the low emotion regulation among adolescents. This study aims to reveal the relationship between parental expressed emotion and adolescents' depression, as mediated by emotional regulation in adolescents. The measuring instruments used are depression scales, the scale of adolescent emotional regulation and the scale of perceived parental expressed emotion. The participants were 212 adolescents who were identified using the purposive sampling technique. Analysis of the research data was made using simple mediation models with PROCESS. The results show a relationship between maternal expressed emotion and depression in adolescents, fully mediated by adolescent emotional regulation (BootLLCI = .030, BootULCI = .083, B = .055). There is also a relationship between fathers' expressed emotion and depression in adolescents, partially mediated by adolescent emotional regulation (BootLLCI = .027, BootULCI = .073, B = .048). The results of the study could provide an alternative explanation of the dynamics of the relationships between fathers, mothers and adolescents. In addition, the findings emphasize the importance of adolescent emotion regulation.

Keywords: adolescent; depression; emotion regulation; parental expressed emotion

Abstrak: Masa remaja merupakan salah satu fase yang rentan terhadap depresi. Depresi pada remaja dapat dipengaruhi oleh konteks keluarga yaitu ekspresi emosi orangtua yang tinggi dan juga regulasi emosi remaja yang rendah. Penelitian ini bertujuan untuk mengungkap hubungan antara ekspresi emosi orangtua dan depresi pada remaja dimediasi oleh regulasi emosi pada remaja. Alat ukur yang digunakan dalam penelitian ini adalah skala depresi, skala regulasi emosi remaja, dan skala ekspresi emosi orangtua berdasarkan persepsi remaja. Partisipan yang terlibat dalam penelitian ini berjumlah 212 remaja yang dikumpulkan dengan menggunakan teknik purposive sampling. Analisis data penelitian menggunakan simple mediation model menggunakan PROCESS. Hasil penelitian menunjukkan bahwa regulasi emosi remaja memediasi secara penuh hubungan antara ekspresi emosi ibu dan depresi (BootLLCI = 0,030, BootULCI = 0,083, B = 0,055). Sementara itu regulasi emosi remaja memediasi secara parsial hubungan antara ekspresi emosi ayah dengan depresi pada remaja (BootLLCI = 0,027, BootULCI = 0,073, B = 0,048). Hasil penelitian ini dapat memberikan alternatif penjelasan mengenai dinamika hubungan antara ayah, ibu dan remaja. Selain itu temuan ini mengindikasikan pentingnya regulasi emosi remaja.

Kata Kunci: remaja; depresi; regulasi emosi; ekspresi emosi orangtua

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Introduction

Adolescence is a phase of life that is full of vulnerability, as it is the transition from childhood to adulthood. In the process of development, adolescents often experience various difficulties, which can ultimately lead to the emergence of depression. The vulnerability of adolescents to depression is evidenced by the study in Indonesia conducted by Peltzer and Pengpid (2018). Their research used IFLS (Indonesian Family Life Survey) data involving 31,447 participants aged 15 years and over. From these data, it was found that the highest rates of depression experienced by adolescents (15-19 years old) were 32% for girls and 26% for boys.

In a study conducted by Fauziyyah and Ampuni (2018) in Yogyakarta, it was found that out of 645 students, from early stage ones who were still in the adolescent phase, up to final year students who were entering the adult phase, there were quite high depression rates of 51%. Amongst these, 18% experienced mild depression, 21% moderate depression and 12% severe depression. These findings are in line with Hankin et al. (2015) belief, that the adolescent phase is indeed a critical developmental stage for the emergence of depression in an individual.

Depression in adolescents can be caused by many issues, including individual factors related to developmental characteristics, such as biological vulnerability (Beck & Alford, 2014), personality (Klein et al., 2011), and cognitive factors (Ho et al., 2018). Other factors include negative life experiences (Goodyer, 2001), and interpersonal contexts between adolescents and peers and with family or parents (Marcotte et al., 2002; McCleary & Sanford, 2002). Regarding depression caused by the interpersonal context with parents, interesting findings were made by Branje et al. (2010), who explain that depression is more related to the quality of adolescent interactions with parents than to other factors. If examined further,

according to Wedig et al. (2007) this is because the relationship between children and parents is reciprocal, which is why parental expressed emotion will greatly affect children's development. This shows that although adolescents are more developmentally dependent on their peers, their relationship with their parents will still be very psychologically influential for them.

The developmental task of adolescents said that the role of the family context with parents is very important in helping them to complete developmental tasks related to learning and to make competent decisions independently (Sanrock, 2014). In this case, parents should help in making choices, and provide guidance (Gauvain & Perez, 2007). Likewise, adolescent stages of development based on Erikson's are identity vs. identity confusion (cited in Sanrock, 2017), the right attitude of parents towards adolescents will help them find their own identity. However, in reality their overall attitude and the interaction of parents with adolescents are not always appropriate. The attitude of parents towards adolescents characterized by always being critical, irritable, not emotionally involved and interfering too much indicates the presence of high expressed emotion (McCleary & Sanford, 2002). Such emotion by parents has been shown to have a strong relationship with the emergence of depression in adolescents (Larson & Ham, 1993; Laursen et al., 1998; Steinberg, 1990).

Parental expressed emotion is a representation of responses and interactions, as well as negative parental attitudes, which can affect their children (Kuipers, 1987). Expressed emotion research has been conducted to establish whether such emotion can predict the emergence of clinical symptoms, such as depression, anxiety, or self-injury (Wedig, et al., 2007). For example, McCleary and Sanford (2002) specifically examined whether high emotional expression by parents can predict depression in adolescents. The results of a longitudinal study of 57 participants showed that a

high level of expressed emotion by parents was indeed associated with the appearance of depression in adolescents.

Other findings show that parents' high expressed emotion is related to self-injurious thoughts and behaviors (SITB), which consists of suicidal ideation, plans for suicide and self-harming behavior (Wedig, et al., 2007). The analysis of this study also revealed that in particular the dimension of criticism from parents was strongly related to SITB. This supports the results of longitudinal studies that have shown that depression can predict the emergence and severity of self-injury by adolescents (Guerry & Prinstein, 2009; Hankin & Abela, 2011; Wilcox et al., 2011). In addition to self-harming behavior, other research has shown that depression in adolescents can produce many negative effects, such as feelings of isolation, academic problems and even suicide attempts (Horowitz & Garber, 2006; Lasgaard et al., 2011; Monnin et al., 2012).

The level of parental expressed emotion is divided into two categories: low expressed and high expressed emotion. Lefley (1992) explains that low emotional expression is a condition in which parents do not over-criticize their children, and are not overinvolved, but rather show positive regard and respect for the autonomy and independence of adolescents, creating relationships that are more positive between teenagers and their parents. According to Hale et al. (2011), high expressed emotion is when parents do not show emotional support for adolescents, interfere with their affairs and decisions, are quick to show anger, and provide much criticism.

Such emotion from parents towards adolescents relates to Beck and Alford (2014) findings about the three mechanisms responsible for depression. When adolescents are constantly given criticism, they will develop negative automatic thinking, negative self-schemas, and errors in logic (faulty information processing).

These three mechanisms are also called cognitive triads, which are three forms of negative thinking that are usually found in individuals with depression.

Unfortunately, in expressed emotion research involving parents, most studies only consider the role of the mother. However, according to McKee et al. (2019), fathers have different expressed emotion strategies. In addition, according to (Garside & Klimes-Dougan, 2002), the effect or impact of the father's expressed emotion will also be different from that of the mother on a child. For example, Cassano et al. (2014) show that mothers tend to give positive emotional responses to feelings of sadness in their sons, while fathers tend to give such responses to their daughters. Garside and Klimes-Dougan's (2002) study showed that young adult subjects reported that mothers showed more negative emotions compared to fathers. Fathers reportedly tended to ignore the negative emotions exhibited by their children; tended to punish their children's negative emotional expressions; or overcame their children's negative emotions through minimization (Cassano et al., 2014). Also on the subject of depression in adolescents, other studies suggest that it is related to the perception that their fathers are overprotective and authoritarian (Kullberg et al., 2020).

All these findings vary according to the purpose of the study and the cultural background of the location where the research was conducted, therefore the difference between the emotional expressions of fathers and mothers would be interesting to examine further using the context of Javanese culture in Yogyakarta, which is likely to be the reason for the differences between fathers' and mothers' emotional expressions from the teenage perception. For example, a study by Subandi (2011) showed that in the context of Javanese culture, high emotional expression by parents does not always have a negative impact if

it is perceived positively. This is because all the indications of the high emotional expression can be considered as expressions of affection or love from parents to their children.

On the other hand, according to McKee et al. (2019) the relationship between emotional responses from parents and depression is not directly related, but occurs through an intervening process known as emotional regulation. Although their study was based on early adult subjects, the results were sufficient to show that emotional regulation is a mediator for the relationship between parents' emotional responses and depressive symptoms in individuals. McKee et al.'s research shows that positive mothers' emotional responses to negative emotions were associated with high emotional regulation, so the level of internalizing behavior (anxiety and depression) was low. Fathers' emotional response to positive emotions was also related to a high level of emotional regulation by the subject and resulted in a low level of internalizing behavior (anxiety and depression). In connection with our research, it is shown that emotion-related parenting behavior does not have a direct impact on adolescent depression, but initially affects adolescents' process of regulating their emotions, and only then will it show the emergence of depression amongst them. Furthermore, research by Morris et al. (2007) demonstrated that emotion-related parenting behaviors were not directly related to adjustment in adolescents, but the path came through emotional regulation in adolescents as mediators. Likewise, Yap et al. (2007) states that emotional regulation is a mediator and a dynamic center for the relationship between risk factors and depression in adolescents.

Significant changes that occur socially, emotionally and cognitively in the adolescent phase can determine how they regulate their emotions, either in general or specific emotion

regulation strategies, such as suppression or reappraisal. This relates to findings by Larson and Ham (1993), Laursen et al. (1998), Steinberg (1990), that new social and emotional experiences felt by adolescents will enable them to disguise their feelings with one of the strategies of emotion regulation, suppression. As prospective adults, adolescents then have new cognitive abilities such as metacognition, self-reflection and increased executive function, which support the formation of cognitive regulation strategies, such as reappraisal.

Furthermore, the role of emotion regulation as a mediator between emotion-related parenting behaviors, which in this case relate to parental expressed emotion and depression in adolescents, can be explained by observing the actual process of developing emotional regulation. According to Morris et al. (2007), this process is influenced by 1) observation, for example, modelling, social referencing and emotion contagion; 2) parenting practices such as emotion coaching and reactions to emotions; and 3) the emotional climate of the family, such as attachment/parenting styles, marital relations, and expressivity.

The explanation above shows that the high expressed emotion of the father and mother is associated with emotional regulation in adolescents, as they make observations and perform modelling in the different stages of parental emotional expression. Parents' high expressed emotion does not allow adolescents to undertake adaptive emotional regulation. Consequently, the ability of adolescents to regulate their emotions is ultimately associated with depression (Hom et al., 2016; Joormann & Stanton, 2016; Potthoff et al., 2016). As revealed by Beck and Alford (2014), negative emotions become issues that make individuals vulnerable to depression. However, few studies have examined the expressed emotions in fathers and mothers separately, even though the patterns of emotional expression in fathers and mothers are certainly different and

have different implications for adolescents. Therefore, this study intends to establish how the emotional expression of parents affects the emergence of depression in adolescents, as mediated by emotional regulation.

Method

The research is a non-experimental type of quantitative research aiming to produce data in the form of numbers, with no variables manipulated in the process. This study examines the relationship between parental emotional expression and depression in adolescents, as mediated by emotion regulation. In the study, the emotional expression of parents acts as the independent variable (X), while depression in adolescents is the dependent variable (Y). The mediator for the two variables is adolescent emotion regulation (M).

The study data were analyzed using the mediation analysis created by Hayes (2022), known as PROCESS. In accordance with the objectives of the study, data analysis using PROCESS allows researchers to observe the direct and indirect effects of the mediator research model. A direct effect is when the variables X and Y have a direct relationship, while an indirect effect is the indirect relationship between the variables X and Y through the variable M.

Participants

The study takes 212 adolescent participants, 56.1% females and 43.8% males. The data collection method used was purposive sampling based on several criteria for participants, namely 1) they should be adolescents aged between 15-18 and currently pursuing high school/ vocational/ equivalent education; 2) they should be living in the same house with both parents; and (3) they should be of Javanese culture/ethnicity. The researcher provided informed consent together with the scale used in the study.

Measuring Instruments

Youth Depression Scale

Depression in adolescents can be measured using the Patient Health Questionnaire-9 (PHQ-9). This consists of nine items that focus on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria for major depressive disorder (MDD) which was developed by Spitzer et al. (1999). These nine items remain unchanged in the update to the Fifth Version of Diagnostic and Statistical Manual of Mental Disorders (DSM-V), hence PHQ-9 remains consistent with the revised manual. PHQ-9 includes evidence that supports the criteria, construction, and external validity and has an Cronbach's alpha reliability index of .89 (Blackwell & McDermott, 2014). The instrument has been translated into many languages, including Indonesian. In PHQ-9, participants are asked to check the number of days they have been disturbed by each of the PHQ-9 symptoms experienced during the previous two weeks. The nine items, based on the DSM criteria for a diagnosis of depression, are used to generate scores of 0, 1, 2, or 3 for the response categories of "never," "a few days," "more than half the time referred to," and "almost every day."

Expression of Parents' Emotions

The measuring instrument used to measure this variable is a scale based on LEE (level of expressed emotion) developed by Gerlsma and Hale (1997). The scale measures the subjective perception of adolescents of their parents' emotional expression. In this study, the same adolescent perception scales are distinguished between the father's and mother's expressed emotion to subjectively measure adolescents' perception of both parents. Four aspects will be assessed on the scale: lack of emotional support (LES), intrusiveness (INTR), irritability (IRR), and criticism (C). The form of response is on a Likert scale, on which each statement has five

alternatives' responses: 1) very incorrect, 2) not true, 3) neutral, 4) true, 5) very true. The item-total correlation coefficient on the scale ranges from .275 to .557, with a minimum correlation coefficient of .25. The scale has an alpha reliability of .854. It can be concluded that the expressed emotion scale has satisfactory reliability because the alpha reliability is above .70.

Adolescent Emotion Regulation

Another measuring instrument used in the study is one developed by John and Gross (2004) with reference to the ERQ (Emotion Regulation Questionnaire). The scale consists of two aspects, cognitive reappraisal and expressive suppression, consisting of 34 items with a choice of answers from very appropriate (SS), appropriate (S), unsuitable (TS), and very unsuitable (STS). High scores on the scale indicate that individuals have high emotional regulation, with low scores indicating the opposite. The scale consists of favorable and unfavorable statements. The form of responses to favorable statements ranges from "very suitable" to "very unsuitable", with scores between 1 and 4, while for unfavorable statements they range from "very unsuitable" to "very

suitable", also with scores between 1 and 4. The total item correlation coefficient on the scale ranges from .256 to .509 and it has an alpha reliability of .786. The results indicate that the scale has satisfactory reliability.

Analysis

Mediation analysis was conducted using PROCESS, with a mediation hypothesis test performed using bootstrapping techniques. Bootstrapping is a technique recommended by Hayes (2022) to observe the indirect or indirect effects between variables, allowing the production of confidence intervals in the statistical estimate. This provides valuable information on the likely value of a parameter, whereas a p value simply gives a single number that estimates the likelihood of the statistics, assuming that the null is true.

Results

The participants in this study were high school students from four different schools in Yogyakarta. The details and results of the estimation of the relationship between variables can be seen in Table 1 and 2.

Table 1
Details of Research Subject Data

No	Classification	Percentage (%)	No	Classification	Percentage (%)	
1	Gender		4	Parents' Highest Education		
	Female	56.132		Mother		
Male	43.868	Elementary/Junior High School		6.60		
2	Age			High School	35.37	
	15	42.45		Diploma	10.85	
	16	23.58		Bachelor	32.54	
	17	25.94		Master	12.26	
3	School			Dr/Ph.D	2.36	
		18		8.81	Father	
		High School A		33.49	Elementary/Junior High School	8.49
		High School B	21.22	High School	41.50	
		High School C	21.69	Diploma	13.20	
	High School D	23.58	Bachelor	28.77		
			Master	7.07		
			Dr/Ph.D	0.90		

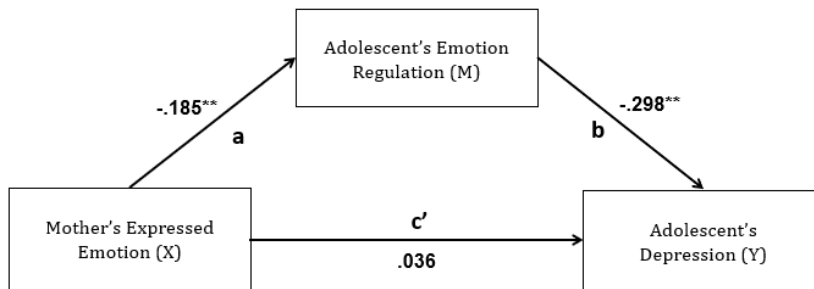
N = 212

Table 2
Results of the Estimation of the Relationship Between Variables

Relationship of Every Path	Coefficient	LLCI	ULCI	Conclusion
X1 - M	-.185	-.243	-.126	Significant
M - Y	-.298	-.403	-.192	Significant
X1 - Y	.036	-.013	.085	Not Significant
X1 - M - Y	.055	.030	.083	Significant
X2 - M	-.172	-.233	-.112	Significant
M - Y	-.281	-.383	-.178	Significant
X2 - Y	.062	.013	.111	Significant
X2 - M - Y	.048	.027	.073	Significant

Explanation: X1= Mother's Expressed Emotion, X2= Father's Expressed Emotion, M = Adolescent's Emotion Regulation, Y = Adolescent's Depression.

Figure 1
Schematic Results of the Estimation of Relationships with Independent Variables of Mother's Expressed Emotion



Note. Significant level *p < .05, **p < .01

Hypothesis Testing

Based on the results of the analysis, it is shown that the expressed emotion coefficient of the mother towards the regulation of adolescent emotions (path a) is B = -.185, p < .01 (p < .05). This indicates that the influence of maternal expressed emotion on the regulation of adolescent emotions is significant. Negative values indicate that the higher the emotional expression of the mother, the lower the emotional regulation of adolescents.

The analysis shows a coefficient of the influence of adolescent emotional regulation on depression in adolescents (pathway b) of B = -.298, p = .01 (p < .05), indicating the significant influence. Negative values indicate that the higher the emotional regulation of adolescents, the lower their depression. Vice versa, when adolescent emotional regulation is low, depression is higher.

The results of the analysis also show a direct effect of maternal expressed emotion on depression in adolescents by controlling adolescent emotional regulation (path c), with B = .036, p =

.153 ($p > .05$). This indicates that there is no influence of maternal expressed emotion on adolescent depression by controlling adolescent emotional regulation variables. The scheme can be seen in Figure 1.

The indirect effect can be estimated with a 95% confidence interval, showing a figure of .030 on BootLLCI (lower level of CI) and .083 on BootULC (upper level of CI). As presented in Table 2, this mediation pathway has a coefficient of .055. The results indicate that there is a significant indirect effect or mediating pathway as the BootLLCI and BootULCI ranges do not include zero values.

Based on the results of the analysis, it can be seen that the coefficient of fathers' expressed emotion on adolescent emotional regulation (path a) is $B = -.172$, $p = .01$ ($p < .05$), indicating a significant influence. Negative values indicate that the higher the emotional expression of the father, the lower the emotional regulation of adolescents.

Furthermore, the results of the analysis show the coefficient of influence of adolescent emotional regulation on depression in adolescents (pathway b) of $B = -.281$, $p = .01$ ($p < .05$), indicating a

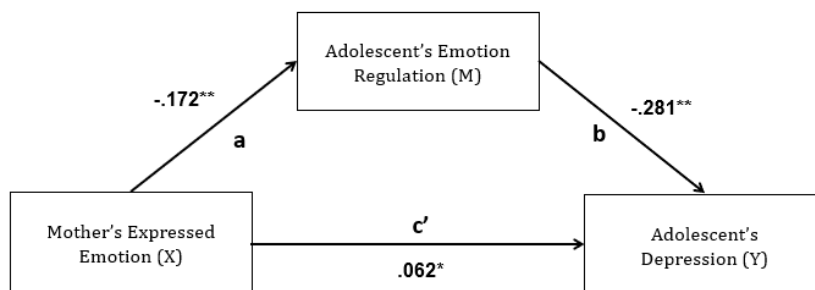
significant influence. Negative values indicate that the higher the emotional regulation of adolescents, the lower their depression. Vice versa, when adolescent emotional regulation is low, depression is higher.

The results of the analysis also show a direct effect of the father's expressed emotion on depression in adolescents by controlling adolescent emotional regulation (path c), with $B = .062$, $p = .012$ ($p < .05$). These figures show that there is an influence of the father's expressed emotion on adolescent depression by controlling the emotional regulation variable. It can be stated that emotional regulation is a partial mediator between the father's expressed emotion and depression in adolescents. The scheme can be seen in Figure 2.

The indirect effect can be estimated with a 95% confidence interval, with a figure of .027 for BootLLCI (lower level of CI) and .073 for BootULCI (upper level of CI). As presented in Table 2, this mediation pathway has a coefficient of .0486. The results indicate that there is a significant indirect effect or mediating pathway as the BootLLCI and BootULCI ranges do not include zero values.

Figure 2

Schematic Results of the Estimation of Relationships with Independent Variables of Father's Expressed Emotion



Note. Significant level * $p < .05$, ** $p < .01$

Discussion

The study results indicate that the parental expressed emotion of both the father and mother is associated with depression in adolescents, mediated by adolescent emotional regulation. Parental expressed emotion will influence how the process of emotion regulation is performed by adolescents. This process plays a role in determining the emergence of adolescent depression as an outcome of the expressed emotion of fathers and mothers as antecedents. As explained by Folkman and Lazarus (1988), regarding the role of mediators, the mediator variable changes the relationship between variable X and variable Y.

This can also be explained by the path which has a significant relationship. Although in their teenage phase young people spend more time with their peers than their parents, the role of parents in adolescent development is still very important, especially in psychological terms. As revealed by Santrock (2014) and Wedig et al. (2007), the role of parents in adolescents' lives is very important in helping them in emotional aspects and in completing their developmental tasks.

Morris et al. (2007) also stated that the development of emotional regulation is strongly influenced by how teenagers see their parents. Observations made by adolescents on parents can also be explained using modelling theory or social learning (Morris et al., 2007; Santrock, 2014). Morris et al. (2007) also explained that the development of emotional regulation is influenced by how parents apply their parenting methods and also by the family emotional climate. Climate refers to how the expression is shown by parents to the adolescents in their home.

Parents who have high expressed emotions do not allow adolescents to make observations on matters relating to good emotional regulation because what is received by them is a lack of

emotional involvement and support. The parents may meddle too much, be irritable when adolescents make mistakes, and criticize their teenagers too much. In line with the findings of Morris et al. (2007), Gross (1998) found that adaptive and maladaptive emotional regulation results from evaluations made by adolescents on cues from situations or stimuli in their environment that produce emotions.

In the context of parent-teen interactions, this indicates that adolescents learn the regulation of emotions by evaluating the way their parents respond to situations or stimuli in the environment. Gross (1998) adds that this evaluation leads to behavioral or physiological response tendencies, which ultimately contribute to adaptive or maladaptive regulation. In addition, the explanation of Peris and Miklowitz (2015) is that expressed emotions from parent to child are usually stable over time. For example, if a child constantly receives criticism and excessive involvement from their parents, they will have difficulty in providing effective emotional responses.

The results of this study also show that path b produced significant results, explaining that the level of adolescent emotional regulation affects their level of depression. Research conducted by Hom et al. (2016), Joormann and Stanton (2016) and Potthoff et al. (2016) supports this notion. The study has revealed that emotional regulation is indeed related to adolescent adjustment abilities, which include anxiety, social competence, and depression.

Furthermore, adolescent emotional regulation significantly influences depression. According to Beck and Alford (2014), this is due to the fact that one aspect of depression is the presence of negative emotions. These are manifested by feelings of sadness, hopelessness, depression, sadness, loneliness, unhappiness, anxiety, worry, uselessness, and guilt, together with frequent crying. In the regulation of emotions, the existence

of negative ones occurs because of an individual's inability to regulate these. This notion is explained by Gross (1998) by paying attention to aspects of emotional regulation which are divided into two aspects: cognitive reappraisal and expressive suppression. Cognitive reappraisal is the ability of emotional regulation which allows individuals to make cognitive modifications of stimuli or situations and thus produce meaning and a more positive emotional response. On the other hand, expressive suppression involves emphasis on the expression given to stimuli or situations to produce an emotional response in accordance with expectations.

When adolescents are not able to regulate emotions that consist of cognitive reappraisal and expressive suppression, the stimulus and situations that occur in the environment can lead them to develop negative emotions which, according to Beck and Alford (2014), are one aspect of depression. Negative emotions that become aspects of depression then relate to the cognitive triad consisting of negative automatic thinking, negative self-schemas, and logical errors, because the adolescents are unable to regulate their emotions (Beck & Alford, 2014).

The results of the analysis of path c show that there is a difference between the mother's expressed emotions and those of the father. In the independent variable, those of the mother indicate that the regulation of adolescent emotions results in full mediation, whereas in the independent variable of the father's expressed emotions, such regulation results in partial mediation. Despite these differences, Hayes (2022) states that differentiating between full and partial mediation is not necessary in interpretation.

Furthermore, full mediation of the mother's expressed emotion shows that this no longer directly influences adolescent depression, but instead through emotional regulation as a

mediator. The study results indicate that maternal expressed emotion specifically affects the emotional regulation of adolescents, which then affects their depression. This is reinforced by the findings of Garner and Power (1996), that mothers with low expressed emotion raise children with better emotional regulation. Conversely, their study also showed that when mothers had high expressed emotion, their children would have lower emotional regulation ability. This finding is supported by research by Eisenberg et al. (2001), who later conducted further studies to examine stability in the expressed emotion of the mother and emotional regulation in the child. These showed that there was stability between low emotional expression shown by the mother and the ability to regulate good emotions by children (Eisenberg et al., 2000). Although the research was conducted on toddlers and children, it was sufficient to prove that the role of mothers in the development of children's emotional regulation is significant. Moreover, Yap et al. (2010) found that teenagers who had low emotional regulation also had negative interactions with their mothers.

These findings indicate that the development of emotional regulation tends to be stable, because parents tend to have expressed emotions that are also stable. According to John and Gross (2004), what might differentiate emotional regulation over a life span is the dominance of the use of emotional regulation strategies themselves, with either more use of cognitive reappraisal or expressive suppression.

In addition, partial mediation was found when the regulation of adolescent emotions mediated the father's expressed emotions and depression in adolescents. This partial mediation shows that there are other factors besides the regulation of adolescent emotions that mediate the relationship. These results could be due to the influence of other mediators not included in this study.

With reference to cultural aspects, such partial mediation could be explained by how adolescents perceive the expressed emotions of their father. In Javanese culture, the father has the role of head of the family, breadwinner and as a role model for the children (Geertz, 1985). Therefore, it can be concluded that in Javanese families, fathers are less emotionally involved with adolescents because they tend to keep their distance from their children in order to maintain respect and authority in the family.

The existence of emotional regulation as a partial mediator in the variable of the father's expressed emotion can also be caused by the fact that the high expressed emotion of the father does not always have a negative impact on adolescent emotional regulation if the expressed emotion is positively perceived. As revealed by Subandi (2011), in Javanese culture all aspects that indicate high expressed emotion can be considered as an expression of love from a parent to a child.

The relationship between these three variables can also be explained by the characteristics of adolescents and by also considering the characteristics of parents in Javanese culture. Teenagers, according to Santrock (2017), have unstable mood characteristics, and like to explore and take risks. On the other hand, Geertz (1985) revealed that Javanese parents instil values and submissive attitudes, self-control, and manners in their children. The characteristics of adolescents who have unstable moods and are also happy to take risks have the potential to create high expressed emotions from parents, meaning that adolescent regulation becomes low and depression occurs.

In this study, the expressed emotion of mothers had an average value in the medium category at 53.3%, while that of the father had an average value in the low category, at 52.8%. These results may indicate that a mother expresses emotions of anger in a verbal way over a longer

period than a father (Brody, 2010). In addition, Vostanis and Nicholls (1992) revealed that working mothers had high over-involved emotional expressions, but also made significantly more positive comments to their children than the fathers. According to Geertz (1985), mothers in the Javanese family have a role in direct childcare, so the emotional attachment between the child and mother is more closely intertwined throughout the life span of the child. In Javanese culture, the mother is usually the person who makes decisions for the child, orders them to follow the rules, and makes warnings and punishes them if they make a mistake. This could be the reason why the average adolescents this study perceives their mother's expressed emotion to be in the moderate category.

With regard to fathers' expressed emotion, Brody (2010) argues that they tend to express themselves with logical and physiological approaches, so emotions are rarely expressed clearly. This relates to Shulman and Seiffge-Krenke (2015) argument, that there is kind of father who freed from the responsibility to discipline his children, this kind of father choose to stay away from the "dirty" daily problems and does not really showed emotion. Likewise, Cook et al. (1989) found that fathers tended to suppress and hide their emotional expressions when responding to adolescents. It can be concluded that compared to mothers, who express their emotions verbally, fathers express emotions more through non-emotional and physiological responses, which can be measured by increased heart rate and blood pressure (Gottman & Levenson, 1986). Contextually, in Javanese culture the father plays the role of head of the family, breadwinner and role model for the children (Geertz, 1985). Geertz also reveals that fathers are expected to have patience and wisdom, so that when a mother is angry about a child's mistakes, fathers in Javanese culture will display these qualities. This could be

one of the reasons why on average adolescents perceive their father with low emotional expression.

Future researchers could develop this study by employing a mixed method of quantitative and qualitative research to obtain holistic results regarding the relationship between the variables. They could also distinguish between aspects of emotion regulation, namely cognitive reappraisal and expressive suppression, in the data analysis. This could be useful to establish the effectiveness of emotion regulation and which emotion regulation strategy is used more and has an effect on other variables.

Conclusion

Based on the results of the research and analysis, it can be concluded that the mother's expressed emotions are associated with depres-

sion in adolescents, as mediated by adolescent emotional regulation. High expressed emotion from mothers plays a role in influencing how the process of emotion regulation is followed by adolescents. Such regulation will then determine the appearance of depression.

The results also show that the father's expressed emotion is related to depression in adolescents, mediated by adolescent emotional regulation. His high expressed emotion also plays a role in influencing how the emotional regulation process is followed by adolescents. This low emotional regulation then determines the emergence of teen depression. In other words, the higher the father's emotional expression, the lower the emotion regulation of adolescents, and the lower the emotional regulation of adolescents, the higher the level of depression amongst them.[]

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