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Article

The Effects of Parental Care and Autonomy on Adolescents' Emotion Dysregulation in Peninsular Malaysia

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Abstract: Parents are important figures in shaping an adolescent's emotion regulation. However, there have been fewer studies investigating the effects of parental care and parental autonomy on adolescents' emotion regulation, and the findings from the existing research have been inconsistent. Therefore, the aim of this study is to examine the effects of parental care and autonomy (from both the father and mother) on adolescents' emotion dysregulation. The Malay versions of Parental Bonding Instrument (PBI) and Difficulties in Emotion Regulation Scale-18 (DERS-18) were administered to 491 students between the ages of 13 and 14 years old. The students were recruited from public schools in Peninsular Malaysia by using a non-proportionate random stratified sampling technique. This study employed the Structural Equation Modelling (SEM) with regression analysis. The results showed a significant negative effect of paternal and maternal care on adolescent's emotion dysregulation. There is no significant effect of paternal and maternal autonomy on the adolescent's emotion dysregulation. This study concludes that both fathers and mothers who care for and provide warmth to their children would promote better emotion regulation. The current findings highlight intervention and prevention efforts in promoting parental care and warmth in our children upbringing particularly involving adolescents. These will foster positive impact in the adolescents' abilities to regulate their emotion.

Keywords: parental care, parental autonomy, emotion dysregulation, adolescents, Malaysia

Introduction

Adolescence is a critical period in human development, during which individuals experience a wide range of physical, emotional, and social changes. These changes can be both positive and negative, and may at times lead to psychological distress. For example, adolescents who have gone through puberty may experience changes in their body shape, which can affect their self-perception. Moreover, adolescents may become increasingly independent of their family members, and may need to adapt their peers' values and interests to fit in. These multiple changes can be overwhelming and cause difficulties for adolescents to cope. As a result, they are at risk of developing mental health problems, such as depression and anxiety (Durbeej et al., 2019).

In 2019, 9.5% of Malaysian children aged 10 to 15 were found to have mental health problems (UNICEF Malaysia, 2021). According to the National Institutes of Health Malaysia (2020), one in five

Malaysian adolescents suffered from depression, and one in ten teenagers experienced stress. Additionally, there is a high rate of suicide-related matters among Malaysian adolescents, such as having suicidal ideas, planning suicide, and making suicide attempts (UNICEF Malaysia, 2021). UNICEF Malaysia (2021) also reported that adolescents between the ages of 12 and 13 execute suicide-related matters more frequently than adolescents of other ages. Evidence suggested that the depression and suicidal behaviours have been linked to difficulties in emotion regulation (Colmenero-Navarrete, García-Sancho & Salguero, 2021; Young, Sandman & Craske, 2019).

Literature Review

1. Emotion Regulation

Emotion regulation can be defined as one's ability to manage and modify emotional expression (Gross, 1998). There are two strategies to regulate emotions, which are antecedent-focused and response-focused. Antecedent-focused strategies, such as cognitive reappraisal, rumination, and avoidance, are employed before certain emotions are elicited. On the other hand, response-focused strategies are exhibited after an emotion has been elicited, such as suppression or inhibition. In general, Gross (1998) proposed that emotion regulation is an intrinsic process that may occur voluntarily and involuntarily.

Regulating emotion is crucial as it helps individuals in achieving certain goals (Einsenberg & Spinrad, 2004). These goals include reducing emotional intensity (Aldao, 2013), maintaining good relationships with others (Eisenberg & Morris, 2002), and achieving long-term goals (Tamir, 2009). In addition, Gratz and Roemer (2004) suggested that emotion regulation comprised of specific components for improved emotion regulation abilities. These components are understanding and accepting emotional experiences, being able to control impulsive behaviours, acting according to goals, and finally being able to use appropriate strategies when regulating emotions. An individual is said to experience difficulties in emotion regulation or emotion dysregulation if they lack or do not acquire these components. In comparison to children and adults, several studies suggested that adolescents may experience greater difficulty in regulating their emotions (Hemming et al., 2019; Kraiss et al., 2020; McLaughlin, Garrad & Somerville, 2015).

2. Parenting and Emotion Regulation

Thompson (1994) approaches the topic of emotion regulation from a different point of view. He argued that emotion regulation is not an innate ability. It happens extrinsically, when socializers such as parents, teachers, and friends influence an individual's emotion. In the Heuristic Model, Eisenberg, Cumberland and Spinrad (1998) highlighted that parents are the main agents of emotional socialization. They suggested that children learn to understand, experience, and express their emotions through parental emotional reactions, discussions, and expressions.

Parents are likely to be the earliest figure whom adolescents learn about emotion. From the earliest stages of adolescents' lives, daily interaction with parents has provided rich opportunities for emotional socialization. This happens as a result of how parents react towards their emotions. For example, parents could respond positively by encouraging and accepting emotional expression. The reaction also includes parents who educate and coach their children on appropriate emotional expression. Otherwise, they could react negatively by minimizing, ignoring, or punishing those emotional experiences. Based on the study by Eisenberg et al. (1998), appropriate and consistent reactions from parents will help adolescents maintain an optimal level of emotional arousal and regulate internal stress.

Furthermore, Eisenberg et al. (1998) suggested that discussing emotions will strengthen communication support during times of distress. Parents can emphasize certain emotions during these discussions, explain the causes and consequences of their emotions, and help the adolescents in understanding emotional expression and emotion regulation. Adolescents will eventually feel secure enough to communicate their own emotions and gain a better understanding of the emotions of others. However, adolescents who grow up in families where discussions of emotion are not encouraged may lack information about their own emotions and how to regulate them. Therefore, they are likely to have difficulties in regulating emotions.

Parental expressivity of emotion refers to how parents express their positive and negative emotions. Through observational learning, adolescents unconsciously learn and imitate their parents' emotional expressions. It is likely to happen when adolescents have less information about their environment and eventually take cues from their parents' behaviour (Morris et al., 2007). This will guide them in responding accordingly to the environment. Eisenberg et al. (1998) also suggested that certain parental behaviors are more likely to express certain emotions. For example, responsive parents are more likely to value positive emotions and exhibit pleasant emotions consistently. Such a parental attitude will encourage adolescents to embrace the expressions and behave in the same way. On the other hand, hostile parents may exhibit negative emotions, which adolescent will respond negatively. These examples show how adolescents' emotional expression reflects the emotional profiles of their parents, which in turn influences how adolescents regulate their emotions.

Expanding from the Heuristic Model, Morries et al. (2017) proposed the Tripartite Model of emotion regulation. According to the model, parents influence their children in three ways, which are observational learning, parenting practices, and the emotional climate of the family. Morris et al. (2017) noted in the Tripartite Model family climate that children's emotions are influenced by quality communication between parents and children, parenting styles, and family expression of emotion. Adolescents who are raised in a positive family climate are more likely to feel emotionally safe. This climate is characterized by parents who respond appropriately to their children's emotional expression by providing warmth, support, and acceptance of their emotions. Conversely, adolescents who grow up in a negative family climate, such as one that is demanding, intimidating, or unpredictable, are more likely to be emotionally reactive or emotionally blunt.

Both models are supported by Raval and her colleagues (2013), who found that mothers who respond to their children's emotions in a solution-oriented manner were negatively related to emotion dysregulation. The use of avoidance coping among Chinese adolescents was predicted to be lessened due to both fathers and mothers who coach their children about emotion. In addition, Chen et al. (2018) discovered that adolescents with high scores on the attachment scales for both parents were associated with a higher use of cognitive reappraisal and fewer expressive suppression strategies. Gan et al. (2022) also found that maternal warmth predicts emotion regulation among Malaysian pre-adolescents.

Wang and Qi (2017) found that there was a direct influence of harsh parenting on adolescents' emotion dysregulation in a negative climate family. Similarly, according to two studies by Wang and Wang (2018) and Wang et al. (2022), both harsh fathering and mothering were positively associated with the emotion dysregulation of Chinese adolescents. Saritaş and his colleagues (2013) examined maternal rejection as another form of harsh parenting and found that it was significantly related to adolescents' emotional dysregulation. An observational study by Lo, Ng, and So (2020) also found that parents who give orders to their adolescents when interacting with them are significantly predicted to have later rumination. Additionally, parents who psychologically control their adolescents have a positive effect on emotional dysregulation (Safdar & Khan, 2019).

Adolescents must strive for autonomy in order to develop positively. Parents who support autonomy allow their children to make their own choices without external control or parental pressure. Children with parents who are too demanding or overprotective will be too dependent on their parents' care and subsequently unable to regulate their emotions independently (Bowlby, 1958). Therefore, parents who allow their adolescents to make their own decisions contribute significantly to the emotional regulation of the adolescents.

For instance, Liew et al. (2014) found a direct positive effect between parental autonomy support and Chinese adolescent's emotion-related self-regulation. Based on a longitudinal study by Brenning et al. (2015), perceived maternal autonomy support predicted emotional integration and suppressive regulation. However, among Chinese adolescents, parents who control their children by varying their love and acceptance were positively associated with emotion inhibition and negatively associated with emotion regulation skills (Ha & Jue, 2018). Similarly, a study by Safdar and Khan (2019) reported that Pakistani adolescents who perceived their parents as psychologically controlling were more likely to experience emotion dysregulation.

Although some studies supported the notion that parental warmth and autonomy influence adolescents' emotion regulation, other studies did not come to the same conclusion. As reported by Lee and Shin (2021), parental bonding had no direct relationship with anger suppression among Chinese adolescents. Saritaz et al.

(2013) also found that maternal warmth was not significantly related to the emotion dysregulation of Turkish adolescents. Likewise, Gan et al. (2022) reported that paternal warmth had no effect on emotion regulation among Malaysian pre-adolescents. Another study by Gao et al. (2021) discovered that parents who react to their adolescent's emotions with guilt and humiliation did not predict later emotion regulation, cognitive regulation, or self-regulation. Additionally, parents who interacted with their adolescents by giving suggestions in the form of a question or request did not predict later rumination (Lo et al., 2020).

3. Current Study

According to a systematic review study by Goagoses et al. (2022), there have been fewer studies examining the association between parenting dimensions such as parental care and parental autonomy support, and emotional dysregulation. In fact, they reported significant inconsistencies in their findings. Examining the effect of each parenting dimension individually is crucial as it provides valuable information about their independent impact on adolescents' development (Power, 2013). This approach helps to identify which specific parenting dimension influences emotion dysregulation in adolescence.

Parental socialization of emotion is embedded in the beliefs that shape how emotions are perceived differently within families and across cultures (Eisenberg et al., 1998). Therefore, there is also a possibility of cultural differences in examining the relationship between parenting factors and emotion dysregulation (Goagoses et al., 2022). Taking these into account, we focused on examining single dimensions of parental attitudes rather than parenting styles. It has been argued that parenting styles, which comprise of warmth and demandingness are varied and valued differently across continents (Mousave & Rumaya, 2019). Moreover, the existing literature reviews (e.g., Liew et al., 2014; Brenning et al., 2015; Ha & Jue, 2018; Safdar & Khan, 2019; Gao et al., 2021; Lo et al., 2020) and previous Malaysian studies on the parenting dimension had shown inconsistent results (e.g., Mohd Adnan & Ismail, 2021; Yusof, Bakar & Sawai, 2019; Amran & Basri, 2020; Asnawi, Madlan & Sombuling, 2021).

We attempted to replicate previous findings, while also addressing the stated limitations and inconsistencies by examining the effects of parenting dimensions on adolescent's emotion regulation. Although the study by Gan et al. (2022) has examined this relationship, it only considered the impact of parental warmth on emotion regulation, and was conducted on Malaysian pre-adolescents. Besides, their study did not support the idea that paternal warmth affects emotion regulation in pre-adolescents. We believe that both fathers and mothers play equivalent roles in the emotional development of adolescents as supported in previous studies (Chen et al., 2018; Wang & Wang, 2018; Wang et al., 2022).

Therefore, the aim of this study is to investigate the effects of parental warmth and parental autonomy, both from fathers and mothers, on emotion dysregulation among adolescents in Peninsular Malaysia. We hypothesized that there is a significant negative effect of paternal and maternal warmth on emotion dysregulation. Additionally, we hypothesized that there is a significant negative effect of paternal and maternal autonomy on emotion dysregulation. Figure 1 illustrated the conceptual framework of this study.

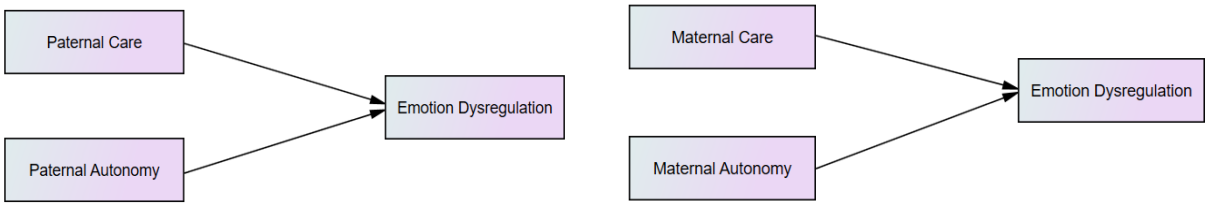

Figure 1. Conceptual framework of this study

Methodology

1. Participants

A total of 491 Malaysian adolescents aged 13 and 14 years old were recruited from eight public schools in Peninsular Malaysia. This study included adolescents who had a good understanding of Malay, came from two-parent families, and were living with biological parents. Adolescents with special needs, cognitive impairments, and those receiving psychological treatment were excluded.

A non-proportionate random stratified sampling technique was used to recruit the adolescents. This technique was employed to overcome the diversity of the adolescent population which comprises different ethnicities and religions (Department of Statistics Malaysia, 2020). The population of adolescents was first divided into four strata based on location, namely the north, south, east, and west regions of Peninsular Malaysia. Then, two public schools were randomly chosen from each stratum, and the representative teacher from each school randomly recruited students to participate in this study.

2. Instruments

The original DERS-18, developed by Victor and Klonsky (2016), is a self-report questionnaire that measures difficulties in emotion regulation. It consists of six dimensions, which are awareness, clarity, impulse, goals, non-acceptance, and strategies. Each dimension has three items, each of which is rated on a five-point Likert scale from 1 (almost never) to 5 (almost always). For awareness dimension, the items had to be reversed scored. Higher total scores indicate higher difficulties in emotion regulation. The Malay version of the Parental Bonding Instrument (PBI-M; Muhammad et al., 2019) was used to measure participant's perception of parenting behaviours that they experienced. There were ten items of parental care and five items of parental autonomy administered. Each item was rated from 1 (very different) to 4 (very similar). Higher total scores of each dimension correspond to higher levels of parental care or autonomy respectively.

3. Procedure

Permission was obtained from the original authors of each instrument. The original English version of DERS-18 underwent standard forward and backward translation process into Malay language by four individuals who were proficient in both languages. Subsequently, three researchers examined the translated versions and chose Malay items that closely matched the original DERS-18. For the final verification, two psychologists and an education expert reviewed the selected items to assess the appropriateness of the translation, ensuring the context and originality of the items and hence strengthen the instrument's validity. Following that, the final Malay version of the DERS-18 was distributed to three students to assess the clarity of the items.

A pilot study with Exploratory factor analysis (EFA) was conducted to examine the psychometric properties of the translated DERS-18. Ninety-one students aged 13 and 14 years old were recruited from a school in the Klang Valley. Varimax and direct oblimin rotation method were applied as in the original study (Victor & Klonsky, 2016) and keeping the factor loading at or more than .3 (Field, 2017). The results showed that the KMO was .932 and the Bartlett's test of sphericity was significant ($p < .001$). All of the Awareness items (item 1, 4 and 6) were removed due to a negative factor loading. The rest of the items had factor loading ranged from .547 to .825. The results also indicated the DERS-18 had a single dimension. Next, Cronbach' α analysis was conducted on the remaining 15 items. The results showed that the DERS-18 without Awareness had excellent reliability, .955.

This research protocol was reviewed and approved by the Research Ethics Committee of the Universiti Kebangsaan Malaysia. This research also received approval from the Ministry of Education Malaysia, the respective State Education Departments, and school principals. Students were contacted through the liaison teachers in which they received the information sheets and parental consent forms. Students who agreed to participate in the study and had parental consent responded to a set of questionnaires in their school hall in approximately 20 to 30 minutes. The participants were informed that their responses would be kept anonymous and confidential.

4. Analysis

The descriptive analysis was run using IBM-SPSS version 26. There was less than .02% missing data across the items of DERS-18 and PBI-M. Therefore, maximum likelihood estimation in AMOS version 24 was used to conduct Confirmatory Factor Analysis (CFA) and employ Structural Equation Modeling (SEM).

First, the CFA was performed to validate the measurement model of latent constructs. It assessed the construct validity, convergent validity, discriminant validity, and composite reliability of the measurement model. According to Awang et al. (2023) and Hair et al. (2019), the construct validity is achieved if the measurement model meets the cut-off value of four fitness indexes, which are relative chi-square (χ^2/df) of less than 5.0, root mean square error of approximation (RMSEA) of less than .06, comparative fit index (CFI) and Tucker-Lewis index (TLI) of larger than .90. As for the convergent validity, it is achieved if the value of Average Variance Extracted (AVE) of each construct is more than .40 (Fornell & Larcker, 1981) or .45 (Awang et al., 2023). The correlation between exogenous constructs should not exceed .85 in terms of discriminant validity (Awang et al., 2023). In addition, the square root of AVE of each construct should be higher than the correlation between the respective constructs.

For the composite reliability (CR), each construct is required to achieve more than .60 (Awang et al., 2023). The AVE and CR were computed using formulas proposed by Awang et al. (2023). Once the validity of the measurement model was achieved, SEM was performed in the models to examine the effects of parental care and parental autonomy on adolescent's emotion dysregulation.

The Findings

1. Profile of Participants

The participants in this study comprise those who were born in 2007 (12.4%), 2008 (58.0%), and 2009 (29.5%). There were 241 boys (49.1%) and 250 girls (50.9%). The majority of them were Malays (87.8%). Almost all the participants' fathers (95.0%) and half of their mothers (55.7%) were employed. The participants were recruited almost equally from each region, with 25.5% from the north, 24.8% from the south, 24.6% from the east, and 25.1% from the west.

The education level of the participants' fathers and mothers ranged from no formal education to university degree. In terms of household monthly income, most of the participants reported an income ranging from no household monthly income to more than RM10,000.

Table 1. Sociodemographic profile of the participants (N = 491)

Demographic Characterisitcs	**N**	**%**
Age		
13 years old	199	40.5
14 years old	292	59.5
Year of Birth		
2007	61	12.4
2008	285	58.0
2009	145	29.5
Gender		
Boys	307	44.6
Girls	382	55.4
Race		
Malay	431	87.8
Chinese	36	7.3
Indian	12	2.4
Bumiputera	11	2.2
Others	1	.2
Region		
North	125	25.5
South	122	24.8
East	121	24.6
West	123	25.1

Employment of Father		
Employed	467	95.0
Unemployed	24	5.0
Employment of Mother		
Employed	273	55.7
Unemployed	218	44.3
Education Level of Father		
No education/Not reported	37	7.6
Primary school degree	59	12.0
Secondary school	280	57.0
College	58	11.8
University	57	11.6
Education Level of Mother		
No education/Not reported	28	5.8
Primary school	49	10.0
Secondary school	283	57.6
College	76	15.5
University	55	11.1
Household Mothly Income		
No income/Not reported	14	3.0
Less than RM4,000	369	75.2
Between RM4,001 to RM10,000	80	16.3
More than RM10,000	285	5.8

2. Measurement Model of The Constructs

Two measurement models, one for father and one for mother, were tested for their model fit using CFA. Each model contained three latent constructs, namely parental care, parental autonomy, and emotion dysregulation. Parental care, parental autonomy, and emotion dysregulation were represented by ten, five, and 15 items, respectively.

For the father's model, the items with factor loading of less than .60 were removed one at a time. Thus, items 1 and 4 from parental care, items 17 and 20 from parental autonomy, and item 7 from emotion dysregulation were removed. A correlation was set between the errors of items 2, 5, 12, 15, 9, and 10 of emotion dysregulation one at time until it achieved the desired value of fitness index (see Figure 2). The final measurement model for the father had demonstrated the best fit, RMSEA = .059, CFI = .914, TLI = .903, and χ^2/df = 2.722.

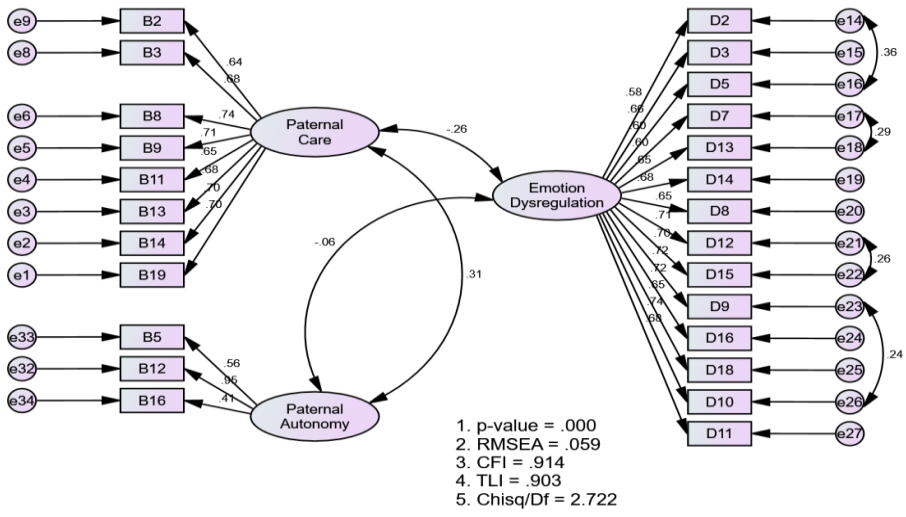

Figure 2. The measurement model of paternal care, paternal autonomy, and emotion dysregulation

A similar procedure was done to the mother's model where items that had a factor loading of less than .60 were removed one at a time. Items 1 and 19 from parental care, items 6 and 20 from parental autonomy, and item 17 from emotion dysregulation were removed. A correlation was set between the errors of items 2, 5, 7, 13, 9, and 10 of emotion dysregulation (see Figure 3). The final measurement model for the mother had demonstrated the best fit, RMSEA = .057, CFI = .912, TLI = .902, and χ^2/df = 2.619. The final results indicate that both measurement models fulfilled the construct validity.

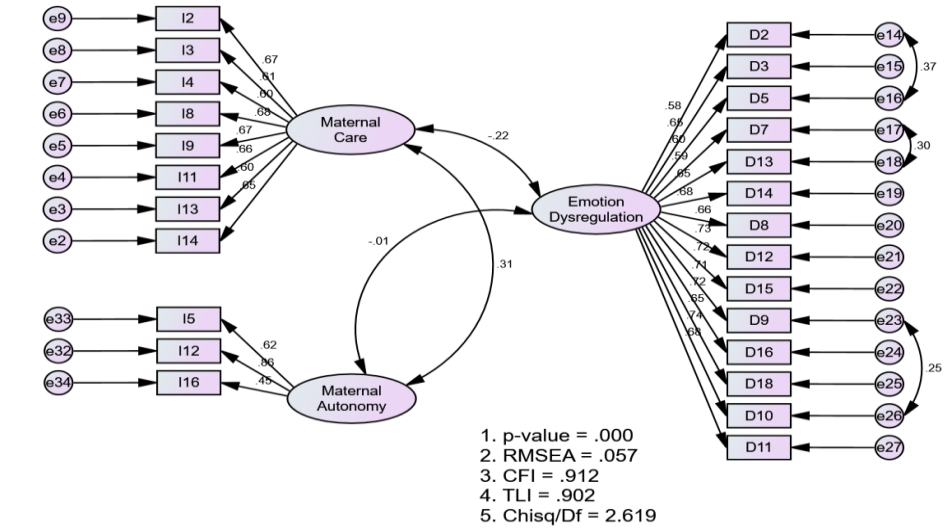

Figure 3. The measurement model of maternal care, maternal autonomy, and emotion dysregulation

Table 2 shows the summary of CR and AVE values for both models. Both models portrayed acceptable AVE values of more than .40 and CR values of more than .60 in relation to convergent validity and composite reliability. The range value of AVE was between .414 and .524, while the range value of CR was between .690 and .919. These results indicated each construct fulfilled the convergent validity and composite reliability.

Table 2. The summary values of AVE to determine the convergent validity and the values of CR to determine the composite reliability of each latent construct

Construct	**AVE**	**CR**
Paternal Care	.474	.878
Paternal Autonomy	.461	.695
Maternal Care	.414	.849
Maternal Autonomy	.442	.690
Emotion Dysregulation	.524	.919

Table 3 presents the square root of AVE and the correlation values between the constructs in the measurement models for the father and mother. Based on the table, all the values of the square root of AVE are greater than the correlation values, indicating that discriminant validity among constructs is achieved.

Table 3. The discriminant validity index summary of all constructs in both models

Construct	Care	Autonomy	Emotion Dysregulation
Father			
Care	**.688**		
Autonomy	.31	**.679**	
Emotion Dysregulation	-.26	-.06	**.724**
Mother			
Care	**.643**		
Autonomy	.31	**.664**	
Emotion Dysregulation	-.22	-.01	**.724**

**The diagonal values which are in bold are the square root of AVE of each construct, while the others are the correlation between the respective constructs.*

3. Structural Model of Regression

The structural models for the father and mother were constructed separately to test the proposed hypothesis. With respect to the structural model for the father (see Figure 4), paternal care and paternal autonomy explained 7.0% of the variance in emotion dysregulation.

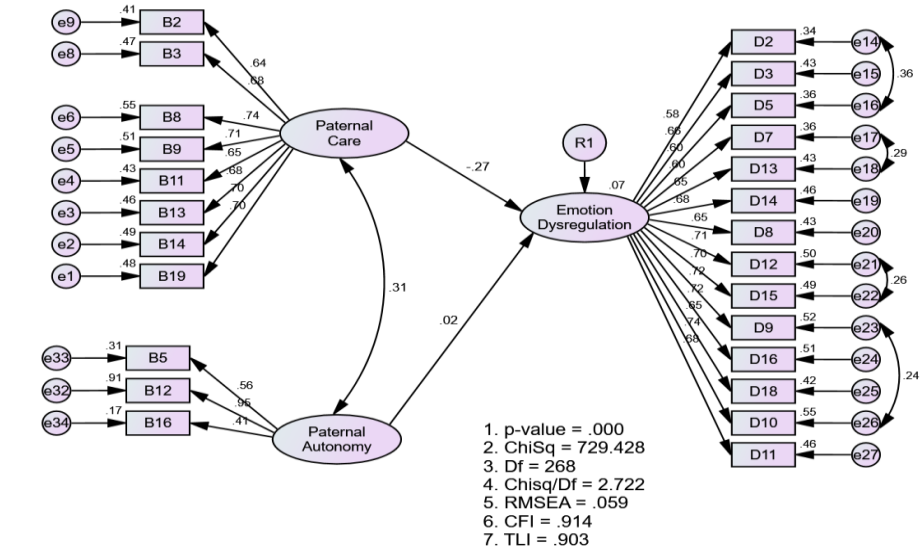

Figure 4. The standardized regression path coefficients between constructs in the structural model of the father

Further results showed that paternal care had negative and significant effects on emotion dysregulation (B = -.292, p < .001). However, there is no significant effect of paternal autonomy on emotion dysregulation (B = .030, p = .702). All the regression path coefficients in the structural model for the father are illustrated in Figure 5.

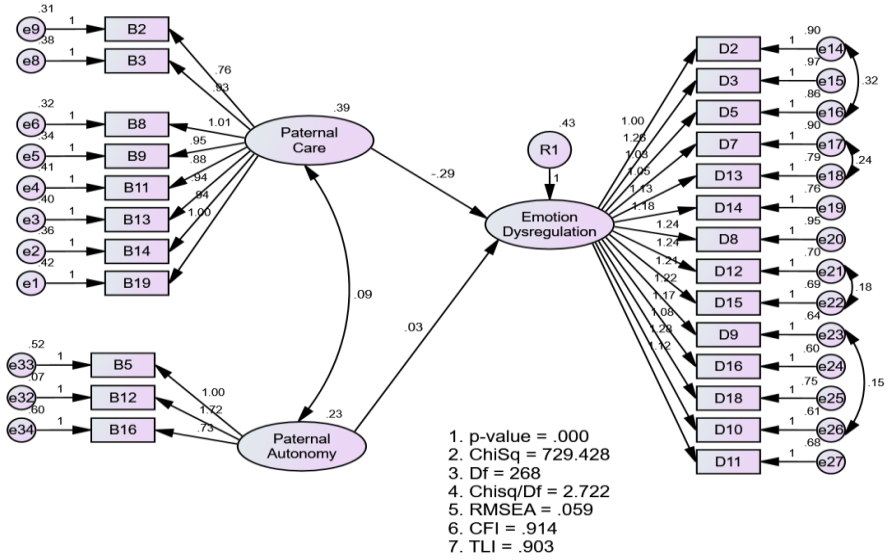

Figure 5. The regression path coefficients between constructs in the structural model of the father

In terms of the structural model for the mother, maternal care and maternal autonomy only explained 5% of the variance in emotion dysregulation (see Figure 6).

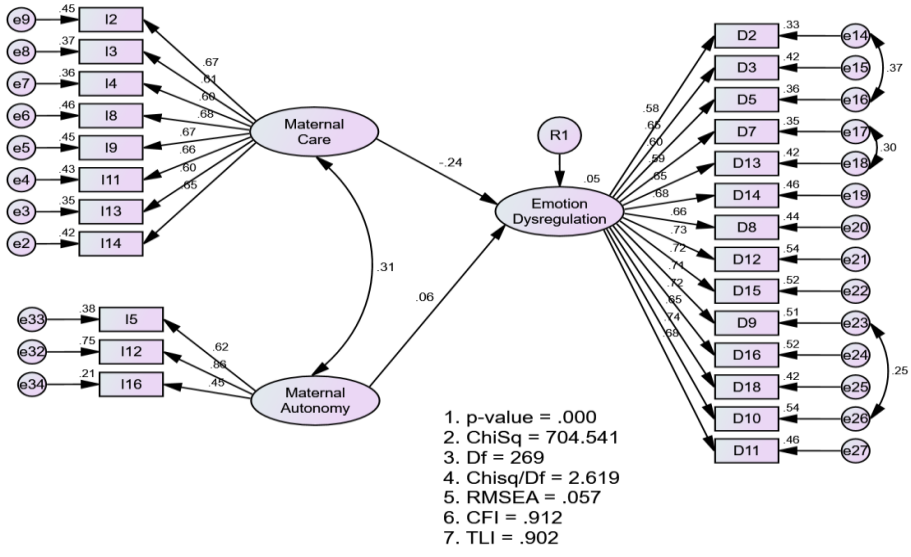

Figure 6. The standardized regression path coefficients between constructs in the structural model of the mother

Moreover, the results showed maternal care had negative and significant effects on emotion dysregulation (B = -.381, p < .001). Nonetheless, there is no significant effect of maternal autonomy on emotion dysregulation (B = .094, p = .259). All the regression path coefficients in the structural model for the mother can be seen in Figure 7.

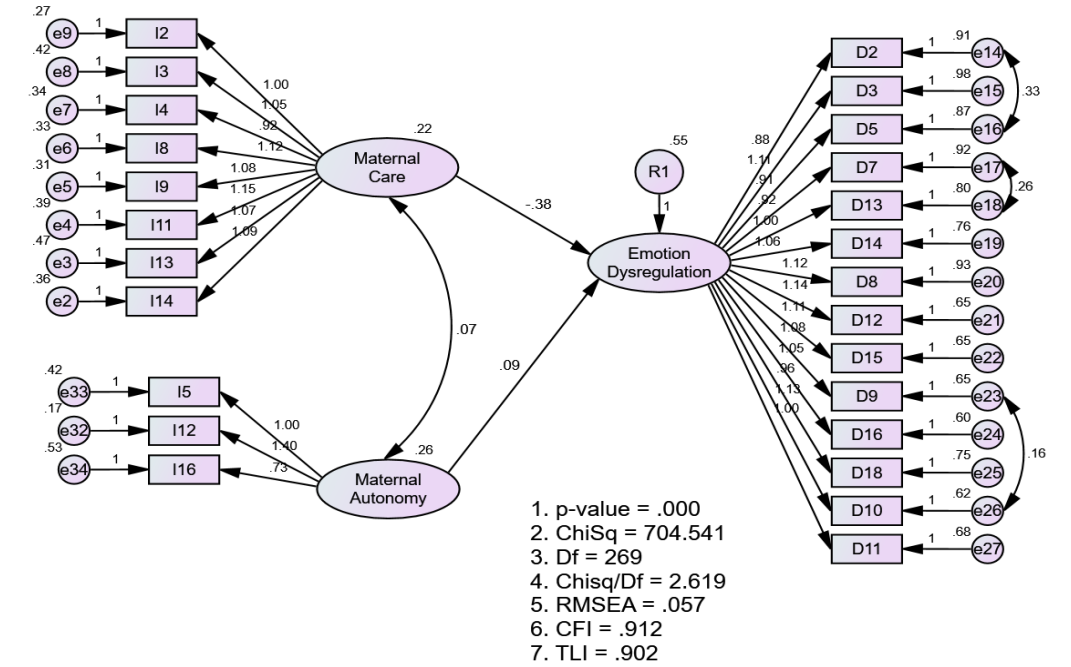

Figure 7. The regression path coefficients between constructs in the structural model of the mother

Table 4 summarizes the path coefficients and their significance for both models.

Table 4. The regression path coefficients between constructs in the structural models

IV	Path	DV	Standardized beta, β	Beta, B	Standard Error	Critical Ratio	p-value
Father							
Paternal Care	→	Emotion Dysregulation	-.269	-.292	.061	-4.758	<.001
Paternal Autonomy	→	Emotion Dysregulation	.020	.030	.072	.383	.702
Mother							
Maternal Care	→	Emotion Dysregulation	-.237	-.381	.091	-4.197	<.001
Maternal Autonomy	→	Emotion Dysregulation	.063	.094	.084	.259	.259

Discussion

The aim of this study was to investigate the direct effect of parental care and parental autonomy on emotion dysregulation among adolescents using SEM. The adolescents were students aged 13 and 14 years old in Peninsular Malaysia. This study hypothesized that there is a significant negative effect of both paternal and maternal warmth on emotion dysregulation. Furthermore, we hypothesized that there is a significant negative effect of both paternal and maternal autonomy on emotion dysregulation.

The results of this study showed a significant negative effect of paternal care and maternal care on emotion dysregulation; therefore, the first hypothesis is accepted. The findings indicated that parents who are warm and caring will lessen adolescents' difficulties with emotion regulation. This is consistent with previous studies, which showed that parental support, maternal warmth, and a strong attachment to one’s parents were

associated with better emotion regulation among adolescents (Raval et al., 2013; Chen et al., 2018; Gan et al., 2022).

Based on the Heuristic Model (Eisenberg et al., 1998) and the Tripartite Model (Morris et al., 2007), parents who are warm and supportive of their children live in a family with a positive emotional climate. In this kind of environment, parents would be more sensitive towards adolescents' emotional states and more likely to express positive reactions. Therefore, adolescents would feel safe communicating their emotions and will be able to learn effective emotion regulation skills through the discussion. As a result, adolescents who acquire effective emotion regulation skills are more aware of their emotions, able to control impulsive behaviors, and act according to their goals (Gratz & Roemer, 2004). Although mothers are traditionally seen as the primary emotional caregivers who provide comfort and support, the findings of this study demonstrated both father's and mother's support are essential for adolescents' emotion regulation which are consistent with the previous studies (Chen et al., 2018; Wang & Wang, 2018; Wang et al., 2022). This could be explained that both fathers and mothers contribute unique and also valuable perspectives and skills to parenting practices. Therefore, together they create a well-rounded and balanced approach to raise adolescents.

Nevertheless, the results of this study also found that paternal and maternal autonomy did not have a significant effect on emotion dysregulation. Thus, the second hypothesis, is rejected, in which these results are similar to Lo et al. (2020), but inconsistent with the findings of Liew et al. (2014) and Brenning et al. (2015). In other words, parents who support autonomy may not have an influence on adolescents' emotion dysregulation. One of the possible explanations is that adolescence is a period characterized by increasing autonomy and the exploration of one's identity. During this phase, adolescents may naturally seek more independence and autonomy in decision making. It could be argued that they may rely less on parental autonomy support and more on their own judgement, making the impact of parental autonomy on emotion dysregulation less pronounces.

Future studies may need to replicate these findings. It is also possible that the context in which emotion regulation and autonomy were measured in this study differed from the previous studies. For example, the study by Liew et al. (2014) and Brenning et al. (2015) operationalized emotion regulation differently, such that focusing on emotion inhibition, emotion regulation skills or self-regulation. Therefore, variations in measurement approaches may contribute to inconsistent results.

1. Implication, Limitations and Future Directions

The finding of this study can inform the development of parental intervention programs aimed at promoting effective emotion regulation in adolescence. While parental care was found to have a significant negative effect on emotion dysregulation, parental autonomy did not show a significant effect. Therefore, intervention could focus on enhancing parental care and emotional support as a means of fostering better emotion regulation skills in adolescents.

There are a few limitations and future directions that should be addressed. Given our insignificant findings for parental autonomy, future studies may replicate our findings by examining similar types of parental autonomy such as parental control (i.e., parental behavioural control or psychological control), parental demandingness, and parental overprotection. These parental attitudes may address various conceptual and operational meanings that would have different effects on the development of adolescents. Second, this study focused on early adolescents and those who lived in Peninsular Malaysia. The findings of this study may not fully represent Malaysian adolescents as a whole. Future research may include adolescents who are in different developmental stages (e.g., early, middle, and late adolescents) as well as those who live in Sabah and Sarawak.

Third, this study did not include a potential mediator (e.g., parental emotional profiles) and a moderator (e.g., adolescent's gender) between the relationship of parental attitude and emotion dysregulation. This kind of study may be fruitful in enlightening us the contribution of parents' emotion and adolescents' gender in development of emotion regulation. Given the smaller variance found in this study, a larger variance could be found in future research that includes other potential predictors such as parent's reaction and emotion coaching. The effects of these predictors on the adolescent's abilities to regulate emotion may be more evident.

Conclusion

In conclusion, this study examined the effect of parental warmth and parental autonomy on emotion dysregulation among adolescents. The findings revealed a significant negative effect of parental warmth on emotion dysregulation, suggesting that a nurturing and supportive parental environment plays a crucial role in promoting healthy emotion regulation development in adolescents. However, parental autonomy did not demonstrate a significant effect on emotion dysregulation. This may indicate that during adolescence, the influence of parental autonomy support may be less pronounced as adolescents naturally seek more independence and autonomy. These findings will provide insights into the future development of parenting intervention in parenting programs. Specifically, they also highlight that both father and mother are equally important in raising adolescents and shaping healthy emotion regulation.

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Informed Consent Statement: All parents who gave permission for their children to be involved in this study had provided a written consent.

Conflicts of Interest: The authors declare no conflict of interest.

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