Abstract
The aim of this study is to determine the relationships between maternal autonomy support (autonomy-supportive and controlling parenting), playfulness, and emotion regulation among pre-schoolers in Klang Valley. A total of 103 mothers with pre-schoolers aged between four and six years old were recruited with a multistage cluster sampling technique. The instruments used in this study were Perceived Parental Autonomy Support (P-PASS) to measure maternal autonomy support, Children’s Playfulness Scale (CPS) to measure playfulness, and Emotion Regulation Checklist (ERC) to measure emotion regulation. The findings revealed a significant positive relationship between autonomy-supportive parenting and emotion regulation and a significant negative relationship between controlling parenting and emotion regulation. However, the relationship between a child’s playfulness and a child’s emotion regulation was not significant. Multiple regression analysis was used to identify the independent variables that could predict emotion regulation. The findings indicated controlling parenting and autonomy-supportive parenting to be significant predictors of emotion regulation among pre-schoolers. The study concluded that autonomy-supportive parenting and controlling parenting had different significant associations with a child’s emotion regulation. Hence, the finding could provide valuable information to parents and educators to provide autonomy support to develop emotion regulation among pre-schoolers.

Keywords: Maternal Autonomy Support, Autonomy-Supportive Parenting, Controlling Parenting, Child’s Emotion Regulation, Pre-Schoolers

Introduction
Emotion regulation refers to the ability to identify, understand, and manage a variety of emotions, including positive and negative emotions, and respond appropriately (McRae & Gross, 2020; Oattes et al., 2018) As an important aspect in a child’s development, emotion regulation begins to develop as early as infancy (August et al., 2017). Children with good...
emotion regulation can process their emotions and show appropriate emotional responses to situational events (August et al., 2017; Cole & Jacobs, 2018). On the other hand, children who face challenges in regulating their emotions are described as high in emotion lability as they show a high sensitivity and irritability towards negative emotions (Lincoln et al., 2017; Oattes et al., 2018).

The preschool period is the golden years of life when children develop rapidly in their cognition and language, as well as their emotion regulation (Bernier, Carlson, & Whipple, 2010). In accordance with Erik Erikson’s second psychosocial stage of autonomy versus shame and doubt, pre-schoolers start to seek autonomy and independence, including in self-regulation of emotions and behaviours (Erikson, 1995; Sigelman & Rider, 2018). The following psychosocial stage is initiative versus guilt, where children try to assert themselves through social interactions with others, where emotion regulation is critical to help them interact with their peers and adults (Erikson, 1995; Sigelman & Rider, 2018). Initially, young children depend on their caregivers in emotion regulation, which later develops from an extrinsic process with the help of others to an intrinsic process of self-regulation (Oattes et al., 2018). Thus, the development of emotion regulation is affected by both personal and environmental factors.

Earlier studies have investigated the relationships between maternal autonomy support (autonomy-supportive and controlling parenting) and a child’s emotion regulation. Maternal autonomy support, a form of positive parenting by encouraging initiative and independence, has been found to benefit children in their emotion regulation (Bocknek, Brophy-Herb, & Banerjee, 2009; Perry et al., 2018; Piotrowski et al., 2013).

In a study by Piotrowski et al (2013), children who were provided with autonomy support showed better emotion regulation as compared to those provided with controlling parenting. Likewise, Mathis and Bierman (2015) indicated that pre-schoolers who received directive-critical parenting and less autonomy support showed poorer emotion regulation. Perry et al (2018) further established that toddlers who received controlling parenting showed poorer emotion regulation when they were five, and later struggled with emotions and school problems when they turned ten. However, Lincoln et al (2017) suggested otherwise that maternal autonomy support is related to poor emotion regulation. In the study by Lincoln et al (2017), the children involved were with a mean age of 3.5 years old. The importance of providing appropriate guidance while granting autonomy support was also highlighted by (Lincoln et al., 2017). Besides, a child’s playfulness, which refers to the predisposition of a child to show a playful personality across situations (Barnett, 2018; Fink et al., 2020), has also been supported to benefit a child’s emotion regulation (Goldstein & Lerner, 2018; Slot et al., 2017). Children naturally love playing and Slot et al (2017) demonstrated that children, as young as three years old, were motivated to regulate their emotions to have an interrupted play. In a study by Goldstein and Lerner (2018), children who engaged in dramatic pretend play games showed better emotion regulation as compared to children engaged in less spontaneous playful activity. In a playful context, pre-schoolers significantly used more private speech (Sawyer, 2017), which helps them in emotion regulation (Day & Smith, 2013). Nevertheless, it should be noted that the playful behaviours should not include much rough play or violence (Dunn & Hughes, 2001; Flanders et al., 2010). Flanders et al (2010) revealed rough-and-tumble play to be related to poor emotion regulation in later years. Dunn and Hughes (2001) found that frequent violent fantasy was associated with poor executive control and language ability among four-year-old children. Later at the age of six, they showed more anger and less empathy (Dunn & Hughes, 2001).
In sum, emotion regulation is crucial in children’s development and affects their later lives as well. Most studies on maternal autonomy support were conducted in Western countries. As an Asian country, Malaysia practises collectivism that focuses on a group’s needs, which means that maternal autonomy support may influence a child’s emotion regulation differently (Marbell-Pierre et al., 2017). Additionally, many studies focused on play activities or behaviours rather than the child’s playfulness. Thus, these served as research gaps to be filled in by this study.

Methodology
Research Design and Sampling
The present study adopted a quantitative research design that is suitable to study a large sample in Klang Valley, Malaysia. Besides, the correlational design was used to study the relationships among maternal autonomy support, playfulness, and emotion regulation among pre-schoolers. As this study was not intended to identify changes over time, the cross-sectional method was chosen to study the variables at a point of time. The survey method with self-administered questionnaires was used to collect the data.
A total of 103 mothers with pre-schoolers aged between four and six years old were recruited with the multistage cluster sampling technique. Five clusters were formed initially and three were randomly selected, namely the Federal Territory of Kuala Lumpur, Petaling, and Hulu Langat. These areas were then sub-grouped into districts and mukims, and two were randomly selected from each area, which are Segambut and Seputeh from Federal Territory of Kuala Lumpur, Puchong Jaya and Petaling Jaya from Petaling, and Ampang and Kajang from Hulu Langat. Later, two preschools were randomly selected from each distract or mukim, which were Tadika Anak Riang from Puchong Jaya, Tadika Titian Pelangi from Petaling Jaya, and Krista Pandan Perdana and Tadika Twinkle Star from Ampang. The other preschools requested to stay anonymous.
Mothers in the selected preschools who fulfilled the criteria were included as respondents. The criteria were being Malaysian, able to read and understand English, and had a pre-schooler aged between four and six years old. Prior to data collection, ethical clearance was obtained from the Ethics Committee for Research Involving Human Subjects, Universiti Putra Malaysia. A pilot study involving 30 mothers who fulfilled the criteria of this research was conducted before the actual data collection. Thereafter, permission was obtained from the principal of each selected preschool before recruiting the respondents. Informed consent was obtained from all respondents and data collection was done via online questionnaire.

Instrumentation
The present study used a set of self-administered questionnaires in English that included four sections, demographic data, maternal autonomy support, playfulness, and emotion regulation.
Maternal Autonomy Support. The Perceived Parental Autonomy Support Scale (P-PASS) developed by Joussemet et al (2014) was employed to measure maternal autonomy support. Among the 18 items on a 4-point Likert scale, nine items measured autonomy-supportive parenting, whereas the other nine measured controlling parenting (Joussemet et al., 2014). The total score was computed by adding up the ratings for all the items based on the subscales. A higher total score on the autonomy-supportive parenting subscale indicates autonomy-supportive parenting, whereas a higher total score on the psychological control subscale indicates controlling parenting (Joussemet et al., 2014). The reliability of the P-PASS
was established with a good internal consistency with Cronbach alphas of .70 for pre-test and .78 for post-test (Joussemet et al., 2014). In another study, the P-PASS was reported to have good convergent validity, divergent validity, and predictive validity (Mageau et al., 2015).

**Playfulness.** The Children’s Playfulness Scale (CPS) was used to measure a child’s playfulness, which was originally created by Lieberman (1965) and later revised by (Barnett, 1990). The finalized CPS is a 23-item instrument rated on a 5-point Likert scale. A total playfulness score is computed by reversing the ratings for the two reverse-scored items and adding up with the other items (Barnett, 1990). A higher score on the CPS suggested a child showing high playfulness. The CPS has illustrated a high internal consistency of .88 for the whole scale and a range of .84 to .89 for the five playfulness dimensions (Barnett, 1990). Convergent and divergent validity were also established (Barnett, 1990).

**Emotion Regulation.** The Emotion Regulation Checklist (ERC) was utilized to measure a child’s emotion regulation. The ERC is a 24-item instrument developed by Shields and Cicchetti (1995) with two subscales, namely emotion lability and emotion regulation, to be rated on a 4-point Likert scale. The score for each subscale is computed by reversing the ratings for the reverse-scored items and adding up the total ratings for all the items according to the respective subscales. A composite emotion regulation score is then obtained by reverse scoring the Emotion Lability subscale and adding to the Emotion Regulation subscale (Shields & Cicchetti, 1997). A higher composite score reflects good emotion regulation. A high internal consistency from .84 to .98 was reported in some studies (Danişman, İman, Demircan, & Yaya, 2016; Ellis et al., 2014; Shields & Cicchetti, 1997). Danişman et al (2016) also established the test-retest reliability, criterion validity, and predictive validity of the ERC. Additionally, Shields and Cichetti (1997) reported a good convergent validity.

**Data Analysis**

The main data analysis tool employed in this study is the Statistical Package for Social Sciences (SPSS) version 26. Firstly, exploratory data analysis (EDA) was done to ensure the normality and linearity of the collected data. Next, two types of data analysis were conducted, namely descriptive statistical analysis and inferential statistical analysis. Descriptive statistics were utilized to describe the demographic background of the participants, including the child’s characteristics, mother’s characteristics, father’s characteristics, and family characteristics. Two types of inferential statistical analysis were used to test the hypotheses. Specifically, Pearson correlation analysis was used to test the strength of the relationship between the variables, namely autonomy-supportive parenting, controlling parenting, playfulness, and emotion regulation, whereas multiple regression analysis was used to determine the predictors of emotion regulation.

**Results and Discussion**

**Respondents Demographics**

The majority of the mothers involved in the present study were between 34 and 38 years old (36.9%) with a mean age of 36.21 years old (SD = 5.38). For education, most of them have obtained Bachelor (55.3%). As for family characteristics, most families have only one child (37.9%), followed by two children (33.0%). In terms of financial-wise, most of the family income ranged between RM4,850 (USD1066.17) and RM10,959 (USD2409.11) (52.4%) in the M40 households as categorized by the Department of Statistics, Malaysia (2021). Among 103 pre-schoolers involved in this study, more than half of them were four years old (51.5%) and there were more girls (52.4%) than boys (47.6%).

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Correlation between Maternal Autonomy Support and Emotion Regulation

As shown in Table 1, a significant correlation was found between maternal autonomy support and emotion regulation of pre-schoolers. Autonomy-supportive parenting was found to have a significant positive correlation with a child’s emotion regulation \( (r = .34, p < .01) \). This finding was in line with previous studies (Laurin & Joussemet, 2017; Piotrowski, 2013). Children who received autonomy support were able to regulate their emotions better than their peers (Piotrowski, 2013). Maternal autonomy support helped children to internalize rules, as indicated by an improvement in committed appliance among children at a later age, which helps in emotion regulation (Laurin & Joussemet, 2017). On the contrary, controlling parenting was found to have a significant negative correlation with a child’s emotion regulation \( (r = -.43, p < .01) \). Pre-schoolers who received controlling parenting that is directive-critical were poorer in emotion regulation (Mathis & Bierman, 2015). Controlling parenting may have a long-term effect on emotion regulation. Perry et al (2018) demonstrated that controlling parenting was associated with poorer emotion regulation among five-year-olds, which showed an association with emotional problems five years later.

An analysis of the subscales of emotion regulation found a significant positive correlation between autonomy-supportive parenting with the emotion regulation subscale \( (r = .37, p < .01) \) as well as a negative correlation with the lability/negativity subscale \( (r = -.15, p = .02) \). This indicated that autonomy-supportive parenting benefited pre-schoolers in emotion regulation, and they showed less lability or sensitivity as they were able to regulate their emotions (Lindblom et al., 2016). Controlling parenting was also found to be positively correlated to the lability/negativity subscale \( (r = .45, p < .01) \). Pre-schoolers showed more sensitivity towards emotional events as they struggled with inhibitory control (Perry et al., 2018).

Table 1

Relationship between Maternal Autonomy Support, Playfulness, and Emotion Regulation \( (N = 103) \)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Emotion regulation</th>
<th>Emotion regulation subscale</th>
<th>Lability/negativity subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( r (p) )</td>
<td>( r (p) )</td>
<td>( r (p) )</td>
</tr>
<tr>
<td>Maternal autonomy support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy-supportive parenting</td>
<td>(.34 (.00)**)</td>
<td>(.37 (.00)**)</td>
<td>(-.24 (.02)*)</td>
</tr>
<tr>
<td>Controlling parenting</td>
<td>(-.43 (.00)**)</td>
<td>(-.15 (.14))</td>
<td>(.45 (.00)**)</td>
</tr>
<tr>
<td>Playfulness</td>
<td>(.07 (.47))</td>
<td>(.44 (.00)**)</td>
<td>(.12 (.25))</td>
</tr>
</tbody>
</table>

Note: *\( p < .05 \), **\( p < .01 \)

Correlation between Playfulness and Emotion Regulation

Table 1 also indicated no significant relationship between playfulness and emotion regulation among pre-schoolers. In other words, pre-schoolers who were more playful did not differ from those who were less playful in emotion regulation. However, an analysis of the subscales of emotion regulation found that that playfulness was significantly correlated to the emotion regulation subscale \( (r = .44, p < .01) \) among pre-schoolers. This indicated that playfulness benefited pre-schoolers in emotion regulation. During playful activities, children who engaged in more cognitive and affective play behaviours were able to regulate their emotions.
better (Hoffman & Russ, 2012). Children benefited from make-belief play activities that allowed them to express and understand their emotions, which could be enhanced through joint play with adults (Pursi et al., 2018).

**Predictors of Emotion Regulation**

As playfulness did not show a significant relationship with emotion regulation, it was excluded in the regression model. The results presented in Table 2 showed a significant value of adjusted $R^2$ of .21. This means that autonomy-supportive parenting and controlling parenting explained 21% of the variance in emotion regulation ($F(2, 100) = 14.63, p < .01$). The findings indicated that autonomy-supportive parenting and controlling parenting were significant predictors of emotion regulation among pre-schoolers in Klang Valley.

In this study, controlling parenting had the largest $\beta$ coefficient value, which was identified as the most significant predictor of a child’s emotion regulation ($\beta = -.36, p < .01$). The negative value indicated that mothers who practiced controlling parenting had pre-schoolers with poor emotion regulation. This was followed by autonomy-supportive parenting ($\beta = .22, p < .05$). Mothers who practised autonomy-supportive parenting had pre-schoolers with good emotion regulation.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Emotion Regulation</th>
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<tbody>
<tr>
<td>Maternal autonomy support</td>
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<td></td>
<td></td>
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<tr>
<td>Autonomy-supportive parenting</td>
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<td>.22</td>
<td>.02</td>
</tr>
<tr>
<td>Controlling parenting</td>
<td>-.48</td>
<td>-.36</td>
<td>.00</td>
</tr>
</tbody>
</table>

Adjusted $R^2 = .21$

$F = 14.63$

**Conclusion and Implications**

This study examined the relationships between maternal autonomy support, playfulness, and emotion regulation among pre-schoolers from Klang Valley. The findings indicated that maternal autonomy support benefited emotion regulation among pre-schoolers. Based on the Pearson correlation analysis, the findings revealed a significant positive correlation between autonomy-supportive parenting and emotion regulation among pre-schoolers. Also, a significant negative correlation between controlling parenting and emotion regulation was found among pre-schoolers. This could be explained as mothers who practised more autonomy-supportive parenting and less controlling parenting tended to have pre-schoolers with good emotion regulation. From the multiple regression analysis, controlling parenting and autonomy-supportive parenting were found to be significant predictors of emotion regulation among pre-schoolers. The finding revealed that controlling parenting to be the strongest predictor of emotion regulation, followed by autonomy-supportive parenting. These variables accounted for 21% of the variance in emotion regulation.

The present study provided several implications. Based on the findings, maternal autonomy support was significantly associated with emotion regulation among pre-schoolers. This could serve as a reference to policy makers, government, and non-government organisations to
develop effective programmes or interventions to develop emotion regulation among pre-schoolers, which would have a long-term effect later in adulthood. Besides, the findings could provide useful information for parents and educators to consider practising autonomy support in children’s daily activities. Hence, the findings could shed light on practising effective methods to communicate with children to teach them holistically. Additionally, this study could provide insights to local researchers and practitioners to develop more studies in the Malaysian context. The psychometric properties of the instruments were established to be used in the local context among pre-schoolers aged four to six years old. Future studies could revise and further investigate among diverse samples and settings to study maternal autonomy support, playfulness, and emotion regulation among pre-schoolers.

References


