

Determinants of Children's Emotional and Behavioral Problems among Preschool Children in Kelantan: From Parent's Perspective

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ABSTRACT

Preschool children with emotional and behavioral problems (EBP) are at risk of having mental health problems in adulthood. The goal of this study is to determine the prevalence of EBP and identify the predictors of EBP among preschool children in Kelantan. A cross-sectional study was conducted among 180 parents of children who are attending preschool. A set of questionnaires consisted of Strength and Difficulties Questionnaire (SDQ), Parenting Emotional Style Questionnaire (PESQ), Asian Family Characteristic Scale (AFCS), and Service Quality Questionnaire (SERVQUAL) to measure i) EBP, ii) parental emotional styles, iii) family values, iv) teacher's empathy, and learning environment and items, respectively. The overall prevalence of EBP was 16.1%. The prevalence of peer problems, hyperactivity problems, conduct problems, and emotional problems was 51.7%, 12.8%, 9.4%, and 6.1%, respectively. Based on Multiple Logistic Regression, parental occupational status ($p = 0.046$), family value ($p = 0.021$), and emotion dismissing parental styles ($p = 0.002$) were significant predictors of EBP, while there was no significant relationship between parental marital status, parental educational level, teacher's empathy, learning environment and items and emotion coaching parental styles. Therefore, early intervention is urgently needed to minimize EBP and prevent these problems in Kelantan.

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1. INTRODUCTION

The prevalence of EBP in children one of common public problems that may influence on their future development and well-being (Wang et al., 2024). Children frequently demonstrate multiple types of EBP, such as anxiety, hyperactivity, and behavioral problems (Alenko et al., 2020; Abd Rahim et al., 2023). Based on recent studies, family dynamics, parental participation, and financial status are some of the factors that influenced these problems (Asadi et al., 2024; Al-Mossawy et al., 2023; Qiao et

al., 2024). The preschool years are important for emotional development, as children begin to form their personalities and learn how to interact with others. Therefore, understanding these contributing factors are important for effective intervention (Batenova & Filippova, 2024).

The majority of children in worldwide showed that 6.01% - 73.6% had experienced EBP (Abd Rahim et. al., 2023; D'Souza et al., 2018; Kariuki et al., 2017; Kwon et al., 2022; Stulb et al., 2018; Zhang et., 2020). In developed country, for instance, in United Kingdom (UK), previous study found that there was an annual increase in the relative rate of EBP score, increased by 1.5 to 5.0% each year, indicating increasing mental health difficulties in children (Ofili et al., 2022). In Malaysia, National Health and Morbidity Survey in 2017 reported that 29.2% of Malaysian children aged 5 to 16 have mental problems, which is an increase of 11.2% from six years ago. Sabah, Sarawak, Kelantan, and Kuala Lumpur were four of the states that have been reported to have the highest prevalence of mental illness in Malaysia. In a recent study, it was showed that the prevalence of EBP in Kelantan was 8.4% (Abd Rahim et al., 2023).

Children who faced EBP were at higher risk of experiencing mental health problems if not prevented early (McGovern et al., 2024). For example, children with early signs of EBP, such as anxiety, depression, or behavioral problems, were probably to have similar symptoms in adolescence or adulthood (Beirao et al., 2020; Abd Rahim et al., 2023). Furthermore, EBP might contribute to poor social skills, which lead to negatively impacting children's ability to interact with peers and academic performance (Abd Rahim et al., 2023; Jing et al., 2024). Therefore, this study aimed to determine the prevalence and identify the predictors of EBP among preschool children in Kelantan, with a specific focus on the family value, the teacher's empathy, the learning environment and items, as well as parental emotional styles. This study could contribute to the development of early intervention module for EBP in preschool children, ultimately minimizing these problems during their development.

Literature Review

Parental Demographic Characteristics

A limited interaction due to occupational factor, and that the quality of interaction is crucial for the children's emotional stability (Setyowati et al., 2023). High levels of work-to-family conflict have been linked to greater levels of stress and anxiety in parents, which can lead to the belief that the occupations have an impact on their ability to be parents (Wang et al., 2023). A part from that, the level of education in mothers was linked to externalizing behavior and general behavioral problems in children, whereas the father's education level did not appear to have a significant direct impact on these behaviour problems (Hosokawa & Katsura, 2018). In term of parental marital status, for example in Sweden, previous study found that preschool children who lived with one parent after separation showed more mental health problems than children who lived with one parent. The effectiveness of co-parenting is crucial, as poor co-parenting quality is closely linked to mental health problems in children (Bergstrom et al., 2021).

Family Value

In the context of family values, the significance of how parents manage and express the emotions is crucial. Research indicates that when parents demonstrate strong emotional regulation and positive emotional expression, it fosters the development of healthier emotional patterns in children. For instance, children are more likely to exhibit increased externalizing issues when parents struggle with emotional regulation, particularly in families where emotional expression is minimal (Liu et al., 2024). A part from that, families under significant stress, like those dealing with financial issues or parents who were divorced, might find it difficult to offer the emotional support required for the healthy development of the children, resulting in a rise in EBP among children (Sahril et al., 2021). Therefore, nurturing constructive family values and encouraging a supportive environment were crucial for enhancing the welfare of children in the preschool years.

Teacher's Empathy

Teachers could meet the emotional needs of children (Wink et al., 2021). Emphatic teachers can create a safe and nurturing environment that encourages children to express their emotions and, at the same time, can reduce behavioral problems (Xiang et al., 2022). Studies show that teacher-student relationships built through empathy increase self-confidence and student motivation. Teachers who provide a positive environment through sympathy can increase student motivation by reducing the level of stress related to learning (Zhang, 2022) because usually children with behavioral problems often disrupt the learning process in the classroom (Ozaslan et al., 2024). The capacity for empathy and emotional regulation among teachers can effectively mitigate selfish behaviors and foster the growth of teacher-child relationships (Lavy & Berkovich-Ohana, 2020; Haslip et al., 2019). Furthermore, empathy enables teachers to comprehend and address the needs of children, offer encouragement and support, and assist in the realization of children's true potential (Meyers et al., 2019), thereby contributing to the establishment of positive teacher-child relationships.

Learning Environment and Items

Interesting teaching practices, well-designed curriculum and opportunities for social interaction and game-based learning can contribute to the holistic development of children (Shazhabayeva & Coban, 2024). Previous study showed that various outdoor games and interesting spaces stimulate socio-emotional development, thus emphasizing the importance of incorporating the outdoor environment in the preschool environment (Mohamad et al., 2022). A game-based learning plays a vital role in the comprehensive development of children, promoting creativity, social skills, and cognitive advancement (Singh & Ngadni, 2023).

Research indicates that utilizing open-ended materials, like clay, significantly enhances children's vocabulary, syntax, and pragmatic language skills when compared to conventional toys (Freeman, 2023).

Parental Emotional Style

Parenting style also had a significant impact on EBP among children (Pan et al., 2021). Previous study was conducted among mothers from different cultural backgrounds (European- American and Chinese-American) found that mothers who engaged in conversations about negative emotions and past sad experiences observed a decrease in EBP (Koh & Wang, 2021). Similarly, findings of Katz et al. (2020), which also emphasize the significance of emotion coaching in enhancing parents' emotional skills and fostering a more supportive environment for children, ultimately leading to improved emotional and behavioural outcomes. On the other hand, parents who ignore children's emotions tend to have difficulties in regulating children's emotions, which can lead to increase levels of sadness and anger (Vu et al., 2022). Furthermore, children who do not learn how to manage emotions properly were likely to experience problems such as aggression and social withdrawal (Martinsone et al., 2022).

2. METHOD

Study Design and Participants

This research employed a cross-sectional study design to investigate the target population of parents of children aged four to six years attending selected preschools in Kota Bharu, Kelantan. A total of 180 parents were selected as sample for this study.

Data Collection Procedures

Primary data were collected using a set of questionnaires, which was administered to the respondents. The researchers had to send a letter to the Director of the Department of Community Development (KEMAS) to request permission to conduct research at KEMAS preschool. The researcher gathered permission from teachers and parents to participate in this study. The questionnaire session was conducted face-to-face so that the parents could answer the questionnaire self-administered. Prior

to the actual data collection, a pilot study was done to help researchers to identify potential problems in the study design and methodology. It gives opportunities for the researchers to discover any errors, modify set of questionnaires, and improve them before conducting the actual questionnaire. This pilot study involved 30 respondents who were parents of children attended selected preschool between the ages of four to six in Kota Bharu, Kelantan. A pilot study is a strategy used to test the questionnaire using a smaller sample compared to the planned sample size. The aim of the pilot study was to get valuable feedback to improve the clarity of the questionnaires.

Study Instruments

Asian Family Characteristics Scale (AFCS)

Asian Family Characteristics Scale (AFCS) original Malay version 30 questions divided into five domains, each domain consisted of six items: togetherness and harmony (0.67), expression (0.81), relationship and family dynamics (0.71), conflict (0.74), and religiosity and traditional practice (0.77) (Musa et. al., 2015). Cronbach's alpha value for all was good, which was 0.90. The AFCS scoring method involves the use of a four-point Likert scale, where respondents indicate their level of agreement with each item, ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). A score of 0 to 100 showed that low family value, while higher than 100 on the AFCS cut-off point proves a high family value.

Service Quality Questionnaire (SERVQUAL)

Service Quality Questionnaire (SERVQUAL) was developed by Parasuraman et al. (1985) to measured teacher's empathy and learning environment and items. The SERVQUAL scoring method involves the use of a five-point Likert scale, where respondents indicate their level of agreement with each item, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). SERVQUAL consists of 22 items divided into five domains, such as reliability (5 items), assurance (4 items), tangibles (4 items), empathy (5 items), and responsiveness (4 items), but only the empathy questionnaire was employed in this study because of the connection with the goal of the research. A score of 0 to 5.49 showed that low quality, while 5.5 and above showed that high quality. Cronbach Alpa for all domains was acceptable, reliability was 0.75, assurance was 0.65, tangibles was 0.70, empathy was 0.79, and responsiveness was 0.70 (Ling et. al., 2019).

Strength and Difficulties Questionnaire (SDQ)

Strength and Difficulties Questionnaire (SDQ) Malay version to measured children's emotional and behavioural problems (Hassan et al., 2019). Each item is answered on a three- point Likert scale as follows: 'not true' (0), 'somewhat true' (1), or 'certainly true' (2). SDQ consists of 25 items divided into five domains, such as emotional problems, conduct problems, hyperactivity, peer problems, and prosocial behaviour, with each domain consisting of five items. The total score of 0-13 indicated as normal, score of 14-17 indicated as borderline and score of 17-40 indicated abnormal. Children with total difficulty score of borderline and abnormal were combined together and considered as a risk group for EBP. A total difficulty score of 14 or higher will be considered that children have EBP. Cronbach's alpha value for emotional symptoms was 0.64, conduct problems was 0.45, hyperactivity was 0.60, peer problems was 0.25, and pro-social behavior was 0.60 (Idris et al., 2019).

Parenting Emotional Style Questionnaire (PESQ)

Parenting Emotional Style Questionnaire (PESQ) developed by Havighurst et al. (2010) to measured parental emotional styles. The PESQ scoring method involves the use of a five-point Likert scale, where respondents indicate their level of agreement with each item, ranging from 1 (strongly disagree) to 5 (strongly agree). The PESQ comprises 21 items, categorized into two groups: emotion coaching (11 items) and emotion dismissing (10 items). Score 44 and above indicated highly practicing emotion coaching parental styles while score 44 and above indicated highly practicing emotion dismissing parental styles. Cronbach Alpa value for emotion coaching was 0.92, whereas for emotion dismissing was 0.90 (Lagace-Seguin & Coplan, 2005).

Data analysis

Descriptive Analysis

This study used descriptive analysis to analyze the quantitative data, such as percentage, frequency, mean, median, mode, and standard deviation of the respondents in the demographic profile. A statistical instrument known as Statistical Package Social Science (SPSS) version 26 programmed operation software was utilized to analyze the data.

Reliability Test

This study used Cronbach's alpha to test internal consistency and measure the reliability of scale. The acceptable range of the α value is between 0.7 and 0.8 (Ursachi et al., 2015).

Single Binary Logistic Regression

This study used single binary logistic regression to identify dichotomous outcome in which there are only two possibilities (yes or no) based on one independent variable. The probability that there is significant relationship or not between socio-demographic characteristics of respondents (namely occupational status, parental educational level, parental marital status), family values, teacher's empathy, learning environment and items, parental emotional styles and children's emotional and behavioural problem can be determined by the p-value. A p-value of less than or equivalent to 0.05 indicates statistical significance in the final result.

Multiple Binary Logistic Regression

A p-value of less than or equal to 0.25 was included in multiple binary logistic regression. P- values in multiple logistic regression assist in figuring out the importance of every predictor variable. The final result, a p-value of less than or equal to 0.05, indicates that it is significantly associated with children's EBP.

3. FINDINGS AND DISCUSSION

Descriptive Analysis

Majority of respondents were mothers (76.7%), married (96.7%), completed secondary school (55.0%), employed (70.6%), aged between 20-39 years old (67.2%), monthly household income below RM3000 (67.8%), participated child's gender was girl (53.9%) and child's aged 6 years (63.3%). The majority of preschools involved in this study were preschools under the Ministry of Education (57.2%). Table 1 presents the distribution of socio-demographic characteristics of respondents.

Table 1: Socio-demographic Characteristics of Respondents (n=180)

Socio-demographic characteristics	Frequency (n)	Percentage (%)
Relationship		
Father	41	22.8
Mother	138	76.7
Others	1	0.6
Parental Marital Status		
Married	174	96.7
Divorced	6	3.3
Parental Educational Level		
Primary School	4	2.2
Secondary School	99	55.0
Diploma	45	25.0
Degree	29	16.1
Others	3	1.7

Parental Occupational Status		
Employed (Government, private or self-employed)	127	70.6
<u>Not working or housewife or others</u>	53	29.4
Parental Age		
20-39 years old	121	67.2
<u>40-55 years old</u>	59	32.8
Parental Household Income Status		
Below RM3000	122	67.8
RM3000 and above	58	32.2
Child's Gender		
Boy	83	46.1
<u>Girl</u>	97	53.9
Child's Age (year)		
4	10	5.6
5	56	31.1
<u>6</u>	114	63.3
Preschool		
Preschool under Ministry of Education	103	57.2
KEMAS Preschool under Ministry of Rural and Regional Development	77	42.8

Majority of respondents having good family value (50.6%), reported teachers having good empathy (97.8%) and good learning environments and items (86.7%). In term of parental emotional styles, majority of respondents showed low practicing emotional coaching (57.2%) and high practicing emotional dismissing (50.6%) (refer Table 2).

Table 2: Family Value, Teacher's Empathy, Learning Environment and Items and Parental Emotional Styles of Respondents (n=180)

Items	Frequency (n)	Percentage (%)
Family Value		
Low	89	49.4
High	91	50.6
Teacher's Empathy		
Poor	4	2.2
Good	176	97.8
Learning Environment and Items		
Poor		
Good	24	13.3
Parental Emotional Styles		
Emotional Coaching	156	86.7
Low	103	57.2
High	77	42.8
Emotional Dismissing		
Low	89	49.4
High	91	50.6

In term of prevalence of emotional and behavioral problems in children (refer Table 3). Prevalence of EBP among preschool children in this study was 16.1%. The prevalence of peer problems, hyperactivity problems, conduct problems and emotional problems were 51.7%, 12.8%, 9.4% and 6.1% respectively.

Table 3: Prevalence of Emotional and Behavioral Problems of Respondents (n=180)

Emotional and Behavioural Problem			
Peer Problems			
Having Peer Problems	93	51.7	
Normal	87	48.3	
Hyperactivity Problems			
Having Hyperactivity Problems	23	12.8	
Normal	157	87.2	
Conduct Problems			
Having Conduct Problems	17	9.4	
Normal	163	90.6	
Emotional Problems			
Having Emotional Problems	11	6.1	
Normal	169	93.9	
Emotional and Behavioral Problems			
Having Emotional and Behavioural Problems	29	16.1	
Normal	151	83.9	

Binary Logistic Regression Analyses

The results of simple binary logistic regression (Table 4) showed that emotion dismissing parental styles showed significantly associated with EBP ($p<0.05$). While, parental marital status, parental educational level, parental occupational status, family value, teacher's empathy, learning environment and items and emotion coaching parental style showed no association ($p>0.05$) with EBP in preschool children in Kelantan.

Table 4: Factors influencing emotional and behavioral problems in children based on result of Simple Logistic Regression (n=180).

Variable	Q Value	Odd Ratio	95% Confidence Interval	
			Lower	Upper
Parental Marital Status	0.999	0.000	0.000	-
Parental Educational Level	0.974	1.013	0.452	2.271
Parental Occupational Status	0.128	0.528	0.232	1.201
Family Value	0.063	0.455	0.198	1.043
Teacher's Empathy	0.629	1.762	0.177	17.555
Learning Environment and Items	0.209	1.928	0.692	5.369
Emotion Coaching Parental Style	0.063	0.465	0.208	1.044
Emotion Dismissing Parental Style	0.004	3.735	1.505	9.268

Multiple Logistic Regression Analyses

The result of multiple binary logistic regression (Table 5) showed that parents who are unemployed compared to parents who are employed are 2.5 (95% CI 1.015 to 6.294) times more likely to have children with EBP. Families with high family value compared to parents who have low family value are 3 (95% CI 1.175 to 7.433) times more likely to have children with EBP. Parents who have a highly practiced emotion-dismissing parental style compared to parents who have a low emotion-dismissing parental style are 7.6 (95% CI 2.1 to 27.353) times more likely to have children with EBP. Finding of this study showed no association between the emotions coaching parental style and the learning environment and items toward EBP in preschool children in Kelantan.

Table 5: Predictors of emotional and behavioral problems in preschool children based on result of Multiple Binary Logistic Regression (n=180).

Variable	Q Value	Odd Ratio	95% Confidence Interval	
			Lower	Upper
Parental Occupational Status	0.046	2.527	1.015	6.294
Family Value	0.021	2.956	1.175	7.433
Learning Environment and Items	0.087	0.360	0.112	1.162
Emotion Coaching Parental Style	0.760	1.182	0.404	3.453
Emotion Dismissing Parental Style	0.002	7.579	2.100	27.353

The finding of this study showed parental occupational status as one of the predictors of EBP. Parental occupational status, such as uncertain work schedules and pressure at work, can affect children's emotional and behavioral development (Kopp et al., 2023; Perry-Jenkins et al., 2019).

The balance between career and time with children plays an important role in shaping children's emotions and behaviour. This is because the interaction between mother and child is an important factor that influences children's feelings and behaviour. Working mothers spend a lot of time at work and little time with their children, which can have a negative impact on children's emotional development (Setyowati et al., 2023). In addition, previous study found that time spent with children can have a positive impact on children's well-being, especially in life and leisure activities (Li & Guo, 2023).

Other than that, family value was one of significant predictors of EBP. Good family values can foster healthy behavior while a negative environment affects children's emotional and behavioral development (Wu, 2024). Children who grow up in a stable family environment especially with both parents show better emotional and behavioral development compared to children from broken families (Jarvis et al., 2021). The family plays an important role in helping children control emotions and a good parent-child relationship can help children understand and manage the emotions (Chen et al., 2022). Disharmonious family relationships can affect children's emotional and behavioral development, while a harmonious family environment helps to reduce these problems (Sheng et al., 2022). A positive family environment such as open communication, strong relationships and family harmony can develop good habits among children, while a problematic family environment can have a negative impact on the emotional and behavioral development of children (Mphaphuli, 2023).

In addition, mothers' negative expressions may be associated with increased use of corporal punishment and psychological aggression, which can lead to emotional problems in children (Zhang et al., 2023). Parents' negative emotional environment also has a great impact on children with behavior problems because when parents show negative emotions, children with behavior problems have difficulty understanding the negative emotions in other people's faces (Burley et al., 2021).

Family conflict in early childhood is closely related to increased anxiety, insecurity, and unhealthy family relationships, which can lead to internal and external behavioral problems as children grow up (Iragena et al., 2024; Li et al., 2023). In addition, religiosity and traditional practices can also reduce a person's stress (Fruehwirth et al., 2018). A study conducted in Romania found that children who were involved in Christian practices showed more positive social behaviour (Tudoran & Neagoe, 2023). A study conducted in Indonesia with 3,000 urban children in Jakarta, Bandung, Medan and Surabaya found that fostering a religious atmosphere and supporting children's religious development can lead to better mental health outcomes (Akrim & Junaidi, 2021). Furthermore, a high level of religiosity in a family is closely related to a positive family environment, better anger management and lower behavioural problems (Saladino et al., 2024).

Emotion dismissing also found one of predictor of EBP. Parents who ignore the child's feelings can negatively affect the child's emotional development and lead to internalizing and externalizing problems (Riemens et al., 2023). The high level of stress that parents are exposed to through a neglectful parenting style can exacerbate children's behavioral problems (Kwon et al., 2023). In addition, a dismissing parenting style also affects children's emotional development in learning. Previous research found that a dismissing parenting style affects negative emotions in learning by 30.2%, while other factors such as physical condition, environmental conditions, family size and socioeconomic status also play a role (Salma & Hasibuan, 2023).

4. CONCLUSION

As a conclusion, this research has been carried out to explore the children's emotional and behavioral problems among preschool children in Kelantan. The overall prevalence of EBP was 16.1%. As for the result, it can be concluded that there was significant relationship between parental occupational status, family values and emotion dismissing, while there is no significant relationship between parental marital status, parental educational level, teacher's empathy, learning environment and items, or demographic profile with children's emotional and behavioral problems among preschool children in Kelantan.

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