ORIGINAL ARTICLE

THE ROLE OF SELF-ESTEEM AS A MEDIATOR BETWEEN PERCEIVED PARENTING BEHAVIOURS AND ANXIETY AMONG EMERGING ADULTS IN MALAYSIA AND BRUNEI

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ABSTRACT

Malaysia and Brunei Darussalam have experienced a significant rise in anxiety disorders, serving as a precursor to understanding the underlying risk factors. While perceived parental behaviours, namely, helicopter parenting (HP), parental acceptance-rejection (PAR), and self-esteem, have been widely studied in Western contexts, research regarding these aspects remains limited in Malaysia and Brunei. The present study aimed to examine self-esteem as a mediator of the relationship between perceived parenting behaviours and anxiety among emerging adults, while also comparing these dynamics across the two countries. It also aimed to compare the differences between Malaysians' and Bruneians' experiences of HP and PAR in relation to their self-esteem and anxiety. A cross-sectional study was conducted among emerging adults aged 18-26 from Brunei and Malaysia, with a total of 318 participants. All participants completed four validated questionnaires, namely, the helicopter parenting scale (HPS), the parental acceptance-rejection questionnaire (PARQ), the Rosenberg self-esteem scale (RSES), and the generalised anxiety disorder-7 (GAD-7). The results indicated that Bruneian participants reported higher levels of paternal rejection than Malaysians. Significant positive correlations were found between HP, parental rejection, self-esteem, and anxiety. Maternal-PAR and self-esteem emerged as significant predictors of anxiety. Notably, self-esteem significantly mediated the relationship between maternal-PAR, particularly within the indifference/neglect domain, and anxiety. Overall, the findings suggest that perceived parental behaviours contribute to anxiety development, with self-esteem serving as a key underlying mechanism. This study highlights the relevance of these factors within Asian cultural contexts, extending insights beyond primarily Western-based research.

***Keywords**: Helicopter Parenting, Parental Acceptance Rejection, Anxiety, Self-Esteem, Emerging Adults, Brunei, Malaysia.*

INTRODUCTION

Southeast Asian countries, namely Malaysia and Brunei Darussalam, have gained attention due to the upsurge in the prevalence of mental health issues. In both countries, anxiety disorders are among the most common mental illnesses faced by the population[1-2]. Per a cross-sectional study conducted by Rahman et al. (2020)[3], the prevalence rate of anxiety was reported at 44.5%, compared to depression at 20.5%, which represents 80% of the adult population in the Klang Valley, Malaysia. Recently, a prevalence study reported that the risk of anxiety among university students in Malaysia was 29%[4]. In Brunei Darussalam, individuals having anxiety disorders rose from 1515 in 2021 to 1637 in 2022[5]. Furthermore, according to the Ministry of Health's current Mental Health Action Plan (MHAP)[2], Brunei Darussalam continued to experience rising trends, with 40 new adult cases being treated monthly by the Adult Psychiatric Services, 500 follow-up cases managed by the Child and Adolescent Services, and 400–600 cases being handled by psychologists every month. Therefore, these rising trends highlight the importance of understanding the predisposition and underlying mechanisms that contribute to the development of anxiety disorders.

The rise of emerging adulthood as a recognised developmental period is a worldwide trend[6]. Notably, the prevalence of anxiety tends to be higher during emerging adulthood, with more than half of emerging adults reportedly experiencing anxiety in their lives[7]. The significant transitions during this developmental period might create instability and uncertainty, thereby rendering such individuals more susceptible to mental health problems[8]. Therefore, the onset of anxiety

symptoms may manifest due to the increased vulnerability to environmental stressors, as well as the ambivalence experienced by emerging adults during this phase of life. Concurrently, the changes occurring across different aspects of life during emerging adulthood are often determined by the dynamic and reciprocal interactions between individuals and their environment[9]. According to Arnett (2015)[10], emerging adults' relationships with their parents have a lasting impact on their psychological adjustment. Emerging adults experience several transitions in their lives; similarly, they also experience significant changes in their relationship with their parents[11]. Yakin (2011)[12] asserted that issues associated with parent-child relationship dynamics may have a detrimental impact on an individual's psychological well-being.

Helicopter parenting (HP), also referred to as overparenting, has been noted to negatively affect children's ability and motivation to mature into independent adults[13]. The perceived overprotection of helicopter parents towards their emerging adult children through unnecessary assistance or interference may be perceived as overwhelming[14]. Thus, HP may hinder emerging adults' ability to become independent[15]. Consequently, this increases the likelihood that emerging adult children will be anxious, withdrawn, and insecure[16]. In addition, the overall affective quality of the parent-child relationship during childhood appears to be important regarding the long-term trajectory of emerging adults' well-being[17-18]. Parental acceptance-rejection (PAR) relates to an individual's memories of warmth, affection, hostility, aggression, indifference, and neglect received from their parents between ages 7-12[19]. It is one of the major parental factors that influence children's mental health[20]. Mendo-Lazaro et al. (2019)[21] demonstrated that parental criticism and rejection during early and middle adolescence were associated with emotional instability reflected by individuals' mood swings and their tendencies towards anxiety, depression, discontentment, and irritability. In contrast, parental acceptance has been correlated with greater psychological adjustment[20].

Accordingly, self-esteem varies throughout an individual's lifespan. This is especially significant during the emerging adulthood phase. As emerging adults face new challenges and experiences, their self-esteem may evolve. Supportive environments, positive relationships, and opportunities for personal growth can nurture and develop healthy self-esteem during this phase of life. Feeling accepted and approved by parents contributes to one's self-esteem. Moreover, relationships with parents generally improve from adolescence to emerging adulthood, while conflict diminishes[10]. In contrast, parental rejection or overprotection may undermine children's self-esteem and lead to poor mental health[22].

Moreover, self-esteem has been used as a mediating variable in many studies. Nonetheless, to date, self-esteem has not been widely studied as an underlying mechanism connecting parenting and psychological well-being. Seon (2021)[23] examined the mediating role of self-esteem in the relationship between parental attachment security and social anxiety in primary school children. The study reported that self-esteem was an underlying mechanism in the correlation, serving as a protective factor against social anxiety. However, this study focused on school-aged children rather than emerging adults. It has been suggested that a comprehensive view of self-esteem as a mediating factor remains limited, especially regarding its role among emerging adults[24].

Furthermore, Asian cultures, such as those of Brunei Darussalam and Malaysia, are known for their collectivist values and family obligations. Thus, despite an individualistic culture influencing the Asian population through globalisation, the legacy of collectivism continues to shape the lives of emerging adults[25]. Therefore, this illustrates the importance of examining how perceived parental behaviours impact the development of anxiety in emerging adults, as well as the underlying mechanism of self-esteem that may trigger such anxiety. Hence, studying the influence of perceived parenting behaviours, among other predispositions, on emerging adults developing anxiety disorders is significant.

The existing literature, including that originating from Malaysia, has focused more on other parenting styles, such as Baumrind's four parenting styles, but few studies have investigated HP and PAR. However, given the increasing trend of overparenting across cultures, it is crucial to investigate whether this form of parenting is evident across cultures[26]. It should be noted that overparenting is reported to be a very common practice in Asia[27].

In the context of the present study, both Malaysia and Brunei Darussalam were selected because they are Southeast Asian countries, and parents in such countries are considered controlling, restrictive, and protective of their children[28]. These are characteristics of HP and may reflect parental rejection. To date, there is a dearth of literature or empirical evidence in Brunei and Malaysia on the correlation or effects of HP and PAR on self-esteem and anxiety among emerging adults. Most studies were conducted within Western cultural contexts, focusing on children and the adolescent population[29].

Hence, the primary objective of the present study was to examine the mediating role of self-esteem on the correlation between perceived parenting behaviours, specifically HP and PAR, and anxiety among emerging adults in Malaysia and Brunei.

METHODS

Ethics Approval

The present study was approved by the Research Ethics Committee from the National University of Malaysia, [Ethics Approval no: UKM PPI/111/8/JEP-2022-662].

Procedure

After receiving ethical approval, participants were recruited via various social media platforms, primarily Facebook®, X® (formerly Twitter®), and WhatsApp®. This cross-sectional study was conducted through an online survey based on the convenience sampling technique. The snowballing technique was also employed to maximise outreach and distribution of the online survey among emerging adults in Malaysia and Brunei Darussalam.

Apart from informed consent, research background, and socio-demographic data, participants were also given questionnaires that included the helicopter parenting scale (HPS), the parental acceptance-rejection questionnaire (PARQ), the Rosenberg self-esteem scale (RSES), and the generalised anxiety disorder-7 (GAD-7). Participation in the present study was entirely voluntary, and no incentives were offered. Participants could withdraw from the study at any time.

Participants

A total of 318 emerging adults aged 18–26 participated in the present study, of whom 54.7% (n = 174) were Bruneians and 45.3% (n = 144) were Malaysians. Table 1a and 1b presents a detailed socio-demographic profile of the participants.

Instruments

Structured questionnaires were used to obtain responses from the participants to meet the objectives of the present study. To ensure cultural and linguistic appropriateness, the HPS, as well as the paternal- and maternal-PARQ, were translated into Malay and validated. Confirmatory factor analyses using principal component analysis with Promax rotation were conducted to examine construct validity. Items with factor loadings < 0.30 were excluded from further analysis.

Helicopter Parenting Scale (HPS)

Participants' experiences and perceptions of their parents being controlling during childhood and adolescence were measured using the HPS.

The HPS is an eight-item self-report scale developed by LeMoyne and Buchanan (2011)[15]. A higher score represents a higher level of HP perceived by the participant. In the original study[15], the Cronbach's alpha (a) for the HPS was 0.71. In the present study, the reliability of the HPS was found to be acceptable (a = .73). Furthermore, the Malay-translated HPS showed adequate internal consistency (a = .73). However, Item 8 was removed due to a low item-total correlation (< 0.30). The final 7-item version (Malay HPS-7) yielded two factors, **passive HP** and **active HP**, which explained 54.43% of the total variance. The factor loadings ranged from 0.45-0.70. This 7-item version was used for subsequent analyses.

Parental Acceptance-Rejection Questionnaire (PARQ)

Participants' memories of experiencing PAR during childhood, specifically between the ages of 7-12, were measured using the short version of the PARQ. The PARQ is a 42-item self-report questionnaire developed by Rohner (2005)[30], divided equally into 24 items for the paternal- and maternal-PARQ. The rationale underlying the distinction is that children respond differently to behaviour from each parent. All scales on the PARQ are keyed in the direction of perceived rejection. Khaleque and Rohner (2002)[31] summarised the reliability of the adult, child, and parent versions of the PARQ in a meta-analysis of 51 studies conducted worldwide, whereby the results strongly suggest the measures are reliable for research and for clinical and applied purposes. In the present study, the paternal-PARQ (a = 0.95) and maternal-PARQ (a = 0.95) showed excellent internal consistency.

For the **Malay-translated paternal-PARQ**, principal component analysis with Promax rotation indicated adequate sampling (Kaiser–Meyer–Olkin = 0.95; Bartlett's $x^2(276) = 3599.41$, p < 0.05). Three factors, **hostility/aggression, warmth/affection,** and **indifference/neglect,** emerged, explaining 61.45% of the total variance, with factor loadings ranging from 0.51-0.80. Similarly, the **Malay-translated maternal-PARQ** showed good sampling adequacy (Kaiser–Meyer–Olkin = 0.94; Bartlett's $x^2(253) = 3064.37$, p <

0.05). After removing one cross-loading item (Item 10), the final 23-item version yielded three comparable factors, **warmth/affection, indifference/neglect**, and **hostility/aggression**, accounting for 58.68% of the variance, with loadings between 0.50-0.75. These translated versions were used in subsequent analyses in the present study.

Rosenberg Self-Esteem Scale (RSES)

One of the most extensively used instruments to assess an individual's self-esteem is the RSES[32]. It is a 10-item self-report questionnaire measuring self-respect and self-acceptance, rated on a four-point Likert scale. The scale generally has high reliability, with Cronbach's *a* across various samples ranging from 0.77-0.88. The Cronbach's *a* of the Malay version[33] of the RSES was 0.79. In the present study, the internal consistency for self-esteem was good (*a* = 0.86).

Generalised Anxiety Disorder-7 (GAD-7)

The GAD-7 is a 7-item self-report questionnaire designed to assess and evaluate the presence and severity of GAD in an individual[34]. These items refer to symptoms experienced during the two weeks before answering the questionnaire. Thus, the GAD-7 total score for the seven items ranges from 0–21, with scores of 0–4 indicating minimal anxiety, 5–9 mild anxiety, 10–14 moderate anxiety, and 15–21 severe anxiety. Furthermore, the GAD-7 is a valid tool for screening for GAD and assessing its severity in both clinical and research practice[34]. In the present study, the GAD-7 exhibited good reliability, with excellent internal consistency for generalised anxiety (*a* = 0.91).

Data Analysis

Data were analysed using the IBM® Statistical Package for Social Sciences (SPSS®) version 26.0. Descriptive statistics were used to analyse the participants' demographics. Pearson's correlation coefficient was also used to examine correlations between all the variables tested in the present study. An independent samples t-test was used to compare the differences between Malaysian and Bruneian participants' experiences of HP and PAR in the context of self-esteem and anxiety. Before analysing the mediating effect, multiple linear regression analyses were utilised to predict anxiety using perceived parenting behaviour variables and self-esteem as predictors, while also checking for statistical assumptions such as normality and multicollinearity. Using the PROCESS Macro for SPSS® (Hayes, 2013), mediation analyses utilised the simple mediation model (Model 4)[35] to test the mediating role of self-esteem. Helicopter parenting (HP), PAR, and self-esteem were used as predictors, while anxiety was the outcome variable.

RESULTS

An independent *t*-test revealed no significant differences across variables and domains in the present study. Table 2a and 2b presents the mean differences between variables.

Pearson's correlation was used to explore the correlation between the domains of HP, maternal- and paternal-PAR, self-esteem, and anxiety. A positive significant correlation ($p < 0.05$) was found between HP, both PAR, self-esteem, and anxiety. Table 2a and 2b presents the correlation between the variables.

A multiple linear regression was conducted initially, followed by a mediation analysis using the PROCESS macro by Hayes. The multiple linear regression examined the extent to which HP, maternal- and paternal-PAR, and self-esteem predicted anxiety among emerging adults. Preliminary analyses confirmed that no violations of normality, linearity, multicollinearity, or homoscedasticity were present. The overall regression model was significant **(**$R^2 = 0.259$, $F(4, 313) = 27.39$, $p < 0.05$**),** indicating that the predictors explained 25.9% of the variance in anxiety. Specifically, maternal-PAR ($\beta = 0.192$, $t = 3.07$, $p < 0.05$) and self-esteem ($\beta = 0.293$, $t = 5.55$, $p < 0.05$) were significant predictors of anxiety. The positive beta for maternal-PAR suggests that higher perceived maternal rejection is associated with greater anxiety. Similarly, the positive beta for self-esteem reflects the measure's reverse scoring, where higher scores indicate lower actual self-esteem. Therefore, lower self-esteem is linked to higher anxiety. When examining the domains within the perceived PAR measures, the regression model remained significant ($R^2 = 0.275$, $F(9, 308) = 12.99$, $p < 0.05$**),** accounting for 27.5% of the variance in anxiety. Among the domains, only maternal-indifference/neglect significantly predicted anxiety **(**$\beta = 0.179$, $t = 2.01$, $p < 0.05$**).** The detailed results are presented in Table 4.

A mediational analysis was then employed to explore the underlying mechanism, namely, self-esteem as a mediator, based on the significant association found in the multiple linear regression analysis. Therefore, only maternal-parental rejection and maternal-indifference/neglect were examined for further mediational analysis with self-esteem and anxiety. The PROCESS macro by Hayes was used to examine the mediating effect that self-esteem had on PAR and anxiety. Maternal-PAR was found to have a significant indirect effect on anxiety through self-esteem ($b = 4.08$, $p < 0.05$). Maternal-indifference/neglect was also found to have a significant indirect effect on anxiety through self-esteem ($b = 3.48$, $p < 0.05$). Figures 1 and 2 below illustrate these mediational effects of self-esteem.

Table 1: The socio-demographic profile of the participants (*n* = 318).

Characteristics	Frequency	Percentage (%)
Citizenship		
Bruneian	174	54.7
Malaysian	144	45.3
Race		
Malay	249	78.3
Chinese	40	12.6
Indian	9	2.8
Others	20	6.3
Age (years)		
24-26	142	44.7
21-23	98	30.8
18-20	78	24.5
Sex		
Female	228	71.7
Male	90	28.3
Level of Education		
Undergraduate	188	59.1
Master's	45	14.2
PhD	2	0.6
Diploma/Sixth Form	35	11
Others	48	15.1
Occupation		
Student	204	64.2
Employed	77	24.2
Unemployed	37	11.6
Living Arrangement		
Living with Parents	256	80.5
Not Living with Parents	62	19.5

DISCUSSION

The primary objective of the present study was to examine the mediating role of self-esteem on the correlation between perceived parenting behaviours, specifically HP and PAR, and anxiety among emerging adults in Malaysia and Brunei. The study also compared the differences between Malaysian and Bruneian individual experiences of HP and PAR in the context of their self-esteem and anxiety. Apart from this, it also investigated the correlations among perceived parental behaviours, self-esteem, and anxiety among emerging adults.

Firstly, the present study revealed no significant differences between Bruneian and Malaysian individuals across all the studied variables. Although Bruneians reported slightly higher mean scores in paternal-coldness/lack of affection and paternal-indifference/neglect, these differences were not statistically significant. Nonetheless, these findings highlight children's subjective perceptions of their fathers as they grow up. Consistent with previous findings, perceived parenting practices and father-child relationships are associated with greater autonomy and higher self-esteem among emerging adults[36]. Despite the lack of significant group differences in anxiety, the current findings draw attention to the enduring influence of fathers in shaping perceptions of PAR. This is noteworthy given that fathers remain underrepresented in parenting research[37], yet are often perceived as more

Table 2: The means and standard deviations of Bruneians (*n* = 174).

Variables	Mean	Standard Deviation
Bruneians		
RSES	25.44	6.42
GAD-7	12.50	5.43
Active HP	7.22	1.96
Passive HP	9.11	2.60
Paternal-Coldness/Lack of Affection	2.31	0.14
Paternal-Hostility/Aggression	2.20	0.16
Paternal-Indifference/Neglect	1.96	0.15
Maternal-Coldness/Lack of Affection	2.24	0.16
Maternal-Hostility/Aggression	2.02	0.18
Maternal-Indifference/Neglect	2.09	0.15
Malaysians		
RSES	25.60	6.96
GAD-7	11.13	5.88
Active HP	7.10	2.07
Passive HP	8.78	2.66
Paternal-Coldness/Lack of Affection	2.30	0.17
Paternal-Hostility/Aggression	2.20	0.17
Paternal-Indifference/Neglect	1.95	0.19
Maternal-Coldness/Lack of Affection	2.23	0.18
Maternal-Hostility/Aggression	1.99	0.19
Maternal-Indifference/Neglect	2.09	0.17

Note: All the domains in the maternal- and paternal-PARQ were transformed to Lg10.

Table 3: The correlation between HP, PAR, self-esteem, and anxiety (*n* = 318).

Variables	Anxiety
HP – 7 items	**0.30****
Passive HP	0.13*
Active HP	0.33**
Paternal Rejection	**0.32****
Cold/Lack of Affection	0.25**
Hostility/Aggression	0.30**
Indifference/Neglect	0.29**
Maternal Rejection – 23 items	**0.37****
Cold/Lack of Affection	0.27**
Hostility/Aggression	0.40**
Indifference/Neglect	0.37**
Self-Esteem	**0.42****

Note: All the domains in the maternal- and paternal-PARQ were transformed to Lg10.
***. Correlation is significant at the 0.01 level (two-tailed). *. Correlation is significant at the 0.05 level (two-tailed).*

rejecting and less accepting than mothers, potentially reflecting cultural influences[20].

In Brunei Darussalam, the national philosophy of *Melayu Islam Beraja* (Malay Islamic Monarchy) plays an important role in inculcating good values among the people. In many Bruneian Malay families, fathers are often regarded as the heads of the household and the primary decision-makers, reflecting cultural norms and interpretations of Islamic teachings[38]. In this context, fathers' approaches to parenting may emphasise guidance, discipline, and responsibility. While these intentions are generally directed toward nurturing children's development, some emerging adults may perceive fathers as less emotionally expressive or approachable compared to mothers. Subsequently, paternal behaviours characterised by discipline or reserved emotional expression may sometimes be interpreted as coldness or indifference, depending on individual perceptions.

Secondly, the present study revealed significant, although weak, positive correlations across all perceived parenting behaviour domains, self-esteem, and anxiety. Aligning with previous findings, HP and parental rejection were significantly linked to anxiety[13, 39]. These findings also align with the theoretical frameworks underlying this study, particularly PARTheory[40], which posits that perceived PAR in childhood is associated with later psychological outcomes such as anxiety.

Table 4: Predicting anxiety with HP, PAR, and self-esteem according to variables.

Variables	Standardised β	Standard Error	*p*
Self-esteem	0.293	0.045	**0.000****
Maternal-PAR	0.192	2.33	**0.002***
Paternal-PAR	0.074	2.44	0.231
HP	0.143	0.077	0.006
Domains			
Passive HP	0.110	0.136	0.081
Active HP	0.046	0.161	0.419
Paternal-Hostility/Aggression	-0.006	2.56	0.937
Paternal-Cold/Lack of Affection	0.060	2.90	0.456
Paternal-Indifference/Neglect	0.003	2.63	0.971
Maternal-Cold/Lack of Affection	-0.089	2.60	0.254
Maternal-Indifference/Neglect	0.179	3.20	**0.045***
Maternal-Hostility/Aggression	0.136	2.60	0.107

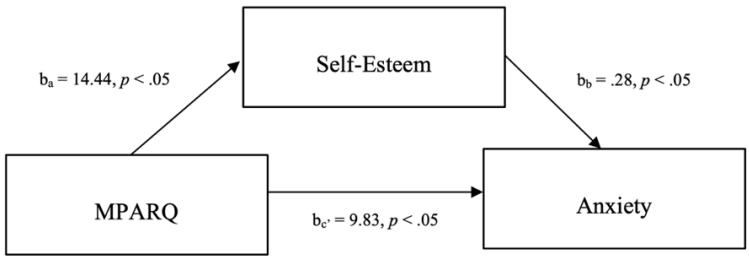

Figure 1: Model 1, the mediating effect of maternal-PAR on self-esteem and anxiety.

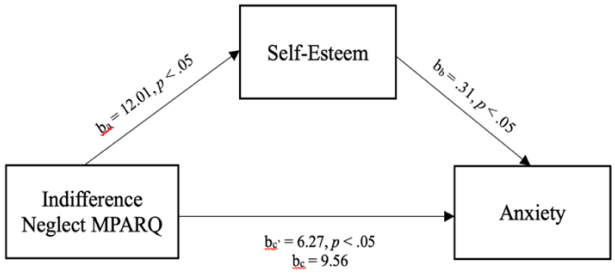

Figure 2: Model 2, the mediating effect of maternal-indifference/neglect on self-esteem and anxiety.

In addition, the results support ecological perspectives suggesting that the parent-child relationship serves as an important micro-level context influencing anxiety[41]. Thus, perceived parenting behaviours during upbringing may shape emerging adults' beliefs and behavioural and emotional functioning. Although causality cannot be established, the findings highlight the importance of studying anxiety in emerging adulthood, a period when anxiety onset is common and parenting continues to play a meaningful role in psychological well-being[42].

Interestingly, the present study's findings found a positive and significant correlation between self-esteem and anxiety, indicating that higher self-esteem was associated with higher anxiety. This is contrary to empirical evidence that often shows an inverse correlation, regardless of age[43-44]. More importantly, the findings in this study disprove Rosenberg (1962)[45], widely considered as the pioneer on self-esteem, where he emphasises an inverse correlation between self-esteem and anxiety, where low self-esteem is associated with high levels of anxiety. Therefore, this suggests a unique finding in the correlation between self-esteem and anxiety, which may be understood through the lens of other psychological processes that might occur among emerging adults in today's generation.

Moreover, HP and paternal rejection were not significant predictors of anxiety among emerging adults. This finding aligns with previous research suggesting that the lack of association may reflect emerging adults' ability to live independently[42]. In contrast, maternal rejection, indifference/neglect, and self-esteem significantly predicted anxiety among emerging adults. Subsequently, a significant indirect effect also indicated that self-esteem mediated the correlation between maternal rejection, particularly indifference/neglect, and anxiety. These findings suggest that perceived maternal rejection contributes to higher anxiety through its impact on self-esteem. Notably, the PARQ and HPS assess retrospective perceptions of parenting, particularly during ages 7–12 for the PARQ. Thus, as individuals mature, they begin to respond in distinct ways to each parent's behaviour, thereby gaining more nuanced and differentiated perceptions of each parent[37], which may explain why maternal influences emerged as more salient in this study.

Consistent with prior research, maternal rejection has been shown to significantly predict anxiety in emerging adults[42]. Additionally, similar to the differences observed between Bruneian and Malaysian emerging adults regarding the behaviours they perceived from their fathers, this finding further illustrates the differential impact mothers and fathers can have on their children's psychology.

Since mothers are perceived as the primary caregivers, Bowlby's (1958)[46] attachment theory suggests that the early bond formed with mothers influences children's emotional and psychological development. Thus, perceived rejection or neglect may hinder emotional regulation, contributing to lower self-esteem and higher anxiety[47]. Over time, these experiences may foster broader internalised difficulties affecting multiple aspects of emerging adults' lives[48]. Subsequently, this can contribute to the indirect effect of emerging adults in instilling high self-esteem when they perceive their mothers as rejecting. In other words, when emerging adults perceive mothers to be rejecting, the emerging adult may turn inwards by portraying themselves to have high self-esteem, which consequently results in high levels of anxiety.

Mediating Effect of Self-Esteem

One of the highlights of the present study is the role of self-esteem as an underlying mechanism in the correlation between early experiences of perceived parental rejection and HP and subsequent anxiety symptoms among emerging adults. While self-esteem is widely recognised as a mediating variable across various psychological outcomes, there is a notable dearth of empirical studies regarding the mediating role of self-esteem between perceived parental behaviours and anxiety.

The existing literature generally associates higher self-esteem with better coping ability and lower

anxiety[49], and highlights its importance for psychological resilience in emerging adulthood[50]. In the present study, although perceived maternal rejection contributed to anxiety, self-esteem also played a significant role in shaping this correlation.

This suggests that, beyond parental influences, the individualistic characteristics of emerging adults in today's generation play a more significant role in contributing to their anxiety symptoms. Emerging adulthood is characterised by greater autonomy alongside academic, occupational, and social demands[9]. As such, even individuals with relatively high self-esteem may experience anxiety due to these overlapping pressures. Supporting this assertion, prior research indicates that self-esteem operates alongside other psychological processes. For instance, Waltz and Chou (2022)[24] found that self-esteem mediated the correlation between emerging adults' subjective well-being and internalising problems, and that neuroticism moderated the correlation between self-esteem and internalising problems. These findings indicate that psychological outcomes for emerging adults are explained by other processes influenced by factors such as cognition, behaviour, and emotions. It can therefore be inferred that the multiple role involvements experienced by emerging adults in today's generation may pressurise them to maintain a certain level of self-esteem. This, in turn, may cause high levels of anxiety, as emerging adults continuously explore and decide upon their life commitments, which requires them to possess high self-esteem.

Limitations and Recommendations for Future Research

This present study is not without limitations. Although this study had a modest number of participants, the findings are not representative of the general population in Malaysia and Brunei. For one, for every analysis in this study, Malaysian and Bruneian participants were combined; this is except for the comparison analysis. Thus, future studies should consider cross-cultural comparisons to enrich comparisons between the two cultures and provide prevalence data on perceived parental behaviours, self-esteem, and anxiety for each country. Examining gender-based differences could also provide valuable insights into how individuals of each gender perceive parenting behaviours. Additionally, since the participants were selected based on convenience sampling from the general population, it is unknown whether the participants had been diagnosed with anxiety disorders because that aspect of demographic data was not collected. The GAD-7 was used merely as a screening tool for assessing the severity of anxiety symptoms. Therefore, future studies may consider comparing the general population with individuals diagnosed with anxiety disorders. This may help build a better understanding regarding the development of anxiety disorders based on the aetiology of the perceived parental behaviours.

Furthermore, the methodology utilised in this study may present certain limitations. Despite the assurance of confidentiality, online responses may prompt participants to provide socially desirable answers. A possible reason for such behaviour could be that the cultural groups being investigated in this study may want to be viewed favourably. Another reason could be the sensitivity of the subject, such as, perceived parental behaviours, where individuals from such collectivistic cultures may be prone to concealing unfavourable outcomes. Besides, the questionnaires utilised in this study evaluated the perception of emerging adults retrospectively, such as, memories of their parents' behaviours when they were growing up. Henceforth, future studies can consider including qualitative analysis to provide richer insights into the experiences of perceived parental behaviours among emerging adults, and the questions can include comparisons of how they perceived their parents when they were younger and in emerging adulthood.

Henceforth, future studies can consider including qualitative analysis to provide richer insights into the experiences of perceived parental behaviours among emerging adults, and the questions can include comparisons of how they perceived their parents when they were younger and in emerging adulthood. Alternatively, although there are limitations to this next suggestion, a longitudinal study could also be worthwhile to explore how the developmental period shapes experiences of perceived parental behaviours and how these experiences affect one's self-esteem, anxiety, and overall psychological well-being.

Strengths

Despite its limitations, this study has several strengths. To our knowledge, this was the first study to examine self-esteem as an underlying mechanism between HP, PAR, and anxiety. It is also worth noting that this study was the first to examine these correlations in the Malaysian and Bruneian contexts. Thus, the findings of this study served to fill a research gap by examining whether these types of parenting behaviours exist in Asian cultures. Moreover, the study confirmed the commonly held beliefs that Asian parents are perceived as imposing controlling and rejecting behaviour.

CONCLUSION

Overall, the present study highlights how children's perception of their parents influences self-perception and the development of anxiety. These findings contribute to the literature by emphasising the importance of the dynamics of an individual's immediate environment during growth.

More importantly, this study illustrated that the perceived parental behaviours assessed, which have been widely studied in the Western context, also exist in Asian cultures. Regardless, even though perceived parental behaviours play a role in the development of anxiety, self-esteem as an underlying mechanism is a significant highlight of this study's findings. These finding sheds light on the importance of self-esteem among emerging adults, as it plays a pivotal role in the development or maintenance of anxiety. Moreover, the development of anxiety may not be attributable entirely to parents.

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