

# Parenting Styles and Parental Mental Health in Post-Pandemic Malaysia: The Mediating Role of Resilience and the Moderating Role of Social Support

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## ABSTRACT

**Background:** Urban Malaysian caregivers have experienced significant stress in child-rearing following the COVID-19 pandemic. Previous studies suggest that parenting practices, resilience in coping with ongoing adversities, and the availability of supportive social networks play important roles in shaping parental psychological well-being and overall health.

**Objective:** This study examined the relationships between parenting styles, psychological resilience, social factors, and mental health outcomes among Malaysian caregivers of young children. It also investigated resilience as a mediating factor and assessed whether social support moderates these relationships.

**Methods:** A cross-sectional study enrolled 288 Malaysian parents of preschool-aged children (three to six years old) between February and April 2025. Participants were drawn from both urban and suburban areas. Data were collected using standardized and psychometrically validated instruments measuring depressive symptoms, parenting stress, parenting styles, parental resilience, and perceived social support. Regression, mediation, and moderation analyses were conducted using SPSS and SmartPLS 4.

**Results:** Authoritative parenting was significantly associated with lower levels of stress ( $\beta = -0.38$ ,  $p = 0.01$ ) and anxiety ( $\beta = -0.32$ ,  $p = 0.01$ ). In contrast, authoritarian parenting was positively associated with higher stress ( $\beta = 0.45$ ,  $p = 0.01$ ) and anxiety ( $\beta = 0.37$ ,  $p = 0.01$ ). Permissive parenting also showed moderate positive relationships with stress ( $\beta = 0.29$ ,  $p < 0.05$ ) and anxiety ( $\beta = 0.26$ ,  $p < 0.05$ ). Psychological resilience partially mediated these relationships, with higher resilience associated with lower stress ( $\beta = -0.36$ ,  $p < 0.01$ ) and anxiety ( $\beta = -0.41$ ,  $p < 0.01$ ). Social factors, including perceived social support, education level, and economic stability, were positively associated with resilience ( $\beta = 0.41$ ,  $p < 0.01$ ). Perceived social support was also negatively associated with stress and anxiety.

**Conclusion:** Parenting styles, resilience, and social support significantly influence the mental health of Malaysian parents raising young children in the post-pandemic context. Authoritative parenting and strong social support contribute to greater resilience and lower psychological distress, highlighting the importance of family-centred interventions that promote adaptive parenting, resilience, and supportive social environments.

**Keywords:** Anxiety, COVID-19, depression, pandemic, parental mental health, post-pandemic era, well-being.

## INTRODUCTION

The COVID-19 pandemic has led to extensive and long-term implications for the mental health of parents with young children. The significant disruption of normal lives, the extended duration of social isolation, economic pressure, and the temporary shutdown of childcare and schools increased the vulnerability of families, regardless of the global context [1]. Such conditions are creating a higher degree of parental anxiety and emotional distress, followed by stress. This is impacting the parents to a great extent in the early child-rearing stages. Even though these challenges have been reported in other countries, the post-pandemic period presents a significant chance to evaluate how parenting behaviors, social settings, and mental resources interact to influence parental mental health.

In Malaysia, these forces are also highly influenced by cultural norms of high expectations and social structures that shape how families operate and the roles of parents [2]. Many Malaysian couples are continuing to face difficulties of balancing financial obligations and other parenting issues, especially since Malaysians tend to start having children at a very young age.

According to national data, the number of divorces has risen significantly during the pandemic, and the Department of Statistics Malaysia has also reported a significant increase in divorces, with the most significant growth observed among married persons aged 30-34 years. Hence, the increasing divorce rates are showing an increasing level of parental stress and financial distress as well.

The fact that these stressors will persist even after the end of the pandemic is a testament to the need to study the mental health of Malaysian parents in the post-pandemic environment methodologically [3]. A growing body of research suggests that differences in parenting styles have significant consequences for children's

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development and parents' outcomes [4]. High warmth, responsiveness, and appropriate behavioral control parenting, often defined as authoritative, has always been linked with better psychological outcomes of parents in various studies [5]. Conversely, authoritarian parenting models focus on high levels of discipline and low levels of emotional warmth. This trend has been associated with high levels of stress and susceptibility to mental morbidity [6]. The lax parenting that involves a balance of both emotional and little behavioral control can be a factor in creating a grey area in the family roles and expectations, further increasing parental anxiety and emotional tension [7].

In the post-pandemic environment in Malaysia, very little research has been done to elucidate the impact of different parenting styles on the development of children while addressing their impact on the mental health of the up-bringers. Research has shown that parents of young children experienced more stress during the pandemic, even in the recovery period [8]. The ability to adjust and overcome difficulties is an important factor in mitigating these impacts for parents. Resilience cushions the parents against the burden of day-to-day parenting and social demands [9]. However, the resilience depends on personal coping strategies and social background. This suggests that resilience may mediate the relationship between parenting methods and mental health.

This study considers Baumrind's tripartite typology, which consists of authoritative, authoritarian, and permissive. Outside the individual practices of the parents, broader social and contextual factors are very significant contributors to the mental health of parents. This role of social support is supported by extensive evidence, showing that support from relatives, peers, and community-based networks is consistently associated with lower psychological strain [10]. As per the stress-buffering concept advanced by Cohen and Wills [11], when support systems are strong, mental health outcomes are more positive, especially when stress levels are high. But these support structures were severely disrupted by public health measures undertaken during the pandemic, which led to the social isolation of more parents [12].

In Malaysian cities, this disruption was also exacerbated by migration and employment patterns that limit frequent interaction with extended family members. Also, structural determinants like socioeconomic status, education level, and working conditions have an intense impact on mental health. The economically disadvantaged parents are particularly susceptible to psychological suffering, and the increased significance of accessible and prolonged social support in alleviating the risks is crucial [13].

No empirical studies incorporating parenting styles, resilience, and social support in the Malaysian post-pandemic environment are available, though

the importance of these aspects is increasingly acknowledged. The majority of the available literature addresses either child outcomes or looks at the determinants of mental health separately. There are very few who examine how these variables correlate to determine parental well-being. First, it takes an integrative analytical approach, using a conditional process framework to examine patterns of parenting, psychological resilience, and social support, rather than treating these constructs as independent variables. Second, the research conceptualizes resilience as an explanatory psychological mechanism and, at the same time, places social support as a contextual buffering effect, thus contributing to current paradigms of family stress and adaptation. Third, it expands the horizon of the mental health scholarship in the aftermath of the pandemic by focusing on parents with young children, who have received little attention during the recovery. These contributions allow the study to go beyond the identification of associations and allow a more subtle analysis of the mechanisms and circumstances under which parenting styles can affect parental mental health.

The research is significant on both theoretical and practical levels. Theoretically, it contributes to understanding the interactions among interconnected factors that influence parental well-being as a whole in a non-Western, post-pandemic environment. Furthermore, since parental mental health is a significant factor in children's developmental paths, the study's findings are far-reaching, as reliable family-based interventions in the Malaysian context can promote the mental well-being of future generations.

Based on these considerations, the following research questions are considered in the present study:

- a) Which are the social and psychological determiners of controlling parental mental health in the post-pandemic era of parents with young children?
- b) Can parental resilience be considered as a mediating factor in the relationship that exists between parenting styles and parental mental health outcomes?
- c) Is the perceived social support a modulating factor in the relationship between parenting styles and parental mental health?

### Hypotheses

The hypotheses that were tested were based on the international literature regarding parenting and mental health, and were as follows:

- H1: Authoritative parenting will correlate with a decrease in parental stress, anxiety, and depression.
- H2: Parental stress, anxiety, and depression will be related to authoritarian and permissive parenting.
- H3: The relationships between the parenting styles and mental health outcomes will be mediated by parental resilience.

H4: Perceived social support will moderate the relationship between parenting styles and mental health, whereby the relationship between maladaptive parenting styles and psychological distress will become less strong under the influence of being socially supported.

## METHODOLOGY

The research design was quantitative and cross-sectional, as it was necessary to gather data at a single point in time to analyze the relationships among parenting styles, psychological resilience, and mental health indicators. The data were collected over three months, from February 2025 to April 2025, to allow sufficient time to enroll participants and review their responses. Ethical clearance for the study was obtained before data collection (Approval No.: UTMREC-2024-68). This study included fathers and mothers from urban areas across Malaysia. Written informed consent from all participants in the study was obtained.

This study involved urban-based fathers and mothers within the Malaysian population and employed purposive sampling of parents with young children. In developmental psychology, a young child refers to a child in the preschool age range of 3 to 6 years. Parents were not restricted by age as long as they had at least one young child living at home. Parents who did not have a young child at home or were not currently raising one were excluded from the study. A total of 288 participants were involved in this study. The required sample size was calculated using G\*Power 3.1 for multiple regression with three predictors, assuming a medium effect size ( $f^2 = 0.15$ ) based on prior parenting and mental health studies, a significance level of  $\alpha = 0.05$ , and a power of 0.80 [8]. This yielded a minimum required sample of 77 participants. To account for subgroup analyses, mediation, and potential attrition, a substantially larger sample of 288 parents was collected. Participants were excluded if they did not have children within the specified preschool age range (3-6 years) or were not residing in urban or suburban areas.

The data were collected face-to-face using a self-administered Malay-language questionnaire. The verbal informed consent of the confidentiality of personal identification and participant information sheet was given together with the questionnaire. Moreover, participants were asked to complete the questionnaire and hand it in on the same day. The questionnaire consists of participant's sociodemographic details, (such as, age, employment status, monthly household income, number of children in the family, and age of their kids); along with the other variable to test out the hypothesis of the study involved their mental health on depression; anxiety; stress; parenting daily hassles; perceived social support; coping skills and parenting styles.

The data were collected using a questionnaire developed by combining seven instruments. All

instruments were then combined into one set, including the sociodemographic profile of respondents, the informed consent form, and the information sheet. The questionnaire was bilingual, that is, both English and Malay versions. The instruments were translated using back translation by using general words to avoid misleading sentences.

The Beck Depression Inventory (BDI), originally developed by Aaron T. Beck [14], is a widely used psychological measure designed to assess the intensity of depressive symptoms among adolescents and adults. The instrument has undergone several revisions since its first formulation in 1961, and the latest version is the BDI-II. The BDI-II has 21 self-report questions, rated on a 4-point scale (0-3), and covers a wide range of depressive symptomatology. Aggregate scores span from 0 to 63 and are interpreted across four severity categories: minimal (0-13), mild (14-19), moderate (20-28), and severe depression (29-63).

Parental stress was measured using the Parental Stress Scale (PSS), developed by Berry and Jones [15], a brief self-report instrument designed to assess stress related to parenting. The scale has 18 items that assess both the satisfying aspects of parenting, including emotional satisfaction and personal meaning, and the difficult aspects of parenting, including demands on time, resources, and perceived limitations on personal autonomy. Based on their lived experience, respondents indicate their level of agreement with statements using a five-point Likert scale, with the extremes of strong disagreement (1) and strong agreement (5). The total scores range from 18 to 90, with higher scores indicating greater parenting stress and lower scores indicating lower stress. The PSS has demonstrated good reliability and validity in assessing parenting stress across diverse populations.

The instrument, created by Robinson, Mandlco, Olsen, and Hart [16], is based on the typology of parenting styles, commonly classified into three categories: authoritative, authoritarian, and permissive. The instrument comprises 32 items that assess parents' beliefs, attitudes, and parenting practices in their daily interactions with their children. A combination of emotional warmth and firm behavioral guidance characterizes authoritative parenting, with an emphasis being laid on clear expectations and the promotion of autonomy and reasoning. For example, parents who support this style are likely to explain the reasons behind household regulations and expectations.

Conversely, authoritarian parenting is characterized by a high degree of control and low emotional responsiveness with a focus on strict discipline and minimal parent-child communication, which can be either unilateral decision-making or punishment. On the other hand, permissive parenting is characterized by warmth and acceptance but little regulation, giving children a lot of

freedom without enforced rules or consequences, even when their behavior is contrary to the parenting party's expectations. The answers were recorded on a 5-point Likert scale from 1 (never) to 5 (always). Therefore, to be scored, the positively worded questions (Items 1, 2, 5, 6, 7, 8, 17, and 18) were inverted before the total score was calculated by summing the answers to all questions. The items were then clustered into the three parenting dimensions, and average scores were calculated for each parenting style. The larger the mean values in a given dimension, the more likely one is to adopt that specific parenting style. The overall scores could range from 18 to 90, with higher scores indicating higher levels of the construct measured. Such a scoring method makes it easier to see the extent to which various parenting strategies are related to children's emotional and behavioral development, a critical field of research in family studies.

Perceived social support was measured using a multidimensional self-report Social Support Scale that assesses the level of support individuals perceive from their social networks, particularly from family and friends. This scale was proposed by Zimet *et al.* [17]. The scale comprises 20 questions covering various types of support, including emotional, informational, and practical. The instrument measures three main dimensions: emotional support that evaluates the existence of care, empathy, trust, and understanding; informational support that evaluates the availability of advice or knowledge that can help in problem-solving and decision-making; and tangible (instrumental) support, which is the actual or material support, such as financial support or help with daily chores. The total scores range from 20 to 100, with higher scores indicating strong perceived support from one's social network and lower scores indicating limited or absent social resources.

The Parental Resilience Scale (PRS), created and tested by Gavidia-Payne and others [18], is used to examine resilience in the caregiving environment. The tool focuses on parents' ability to cope with the psychological and emotional demands of raising their children, especially under long-term pressure. The scale consists of 15 items and captures important dimensions of resilience, such as effective problem-solving, emotional self-regulation, positive parenting behaviors, and seeking and using support. Responses will be recorded on a five-point Likert scale, with 1 (never) to 5 (always). Individual scores will be added to produce a total resilience score, with a potential range of 15 to 75. An increase in the scores indicates greater resilience in the parents, and a decrease in the scores indicates a lesser adaptive ability in the parenting role.

SPSS version 25 and SmartPLS 4.0 were used to analyze all the data using descriptive and inferential statistics. To summarize categorical variables, we used frequencies and percentages. Numerical variables

were tested for normality using the Shapiro-Wilk test. Variables that were normally distributed were expressed as means and standard deviations (Mean  $\pm$  SD), while non-normally distributed variables were reported as medians and interquartile ranges (IQRs).

For inferential analysis, linear multiple regression analysis was conducted to identify the direct effects of parenting styles (authoritative, authoritarian, and permissive) on parental mental health outcomes. Mediation and moderation analyses were performed using the PROCESS Macro for SPSS, developed by Hayes in 2018 [19], with Model 4 for mediation (to test the mediating role of resilience) and Model 1 for moderation (to test the moderating role of social support). The significance of indirect and conditional effects was assessed using bootstrapping with 5,000 resamples and 95% bias-corrected confidence intervals (CIs). The SmartPLS 4 structural model was also tested for model fit on factor loadings, composite reliability (CR), average variance extracted (AVE), discriminant validity (HTMT < 0.85), and predictive relevance (Q<sup>2</sup>). R<sup>2</sup> and F<sup>2</sup> effect sizes were used to assess the model's explanatory power, and all tests were conducted at the  $p < 0.05$  significance level.

Gender, household income of parents, and parental education level were included as covariates in all regression, mediation, and moderation analyses, as they could confound parental mental health outcomes. The present analyses did not test gender and income as moderators because the study aimed to preserve statistical power and keep the model simple. This approach was consistent with the central analytical aim of examining psychological resilience as a mediating mechanism and social support as the primary moderating variable.

## RESULTS

### Study Participants and Demographics

This study recruited 288 Malaysian parents through purposive sampling, focusing on those raising at least one preschool-aged child (ages 3 to 6).

The sample consisted mainly of mothers (66.7%), while fathers accounted for the remaining 33.3% of participants, as shown in Table 1. More than 52.8% of the respondents were in the 30 to 39 age range, indicating that the majority were at an active stage of raising young kids. In terms of education, a significant percentage of the sample had attained undergraduate degrees (43.4%), with another 17.4% having postgraduate degrees, indicating a high level of educational background typical of an urban population. Around 74.3% of parents were employed full-time, and around 38.2% had an income between EM 3001 and RM 6000 per month. The independent-samples t-test results indicated no significant differences in psychological parental stress, residence variables, or perceived social support (all  $p$ -values > 0.05).

**Table 1:** Demographic characteristics of participants (n=288).

Variable	Category	Frequency	Percentage
Gender	Male (Fathers)	96	33.3
	Female (Mothers)	192	66.7
Age Group (Parents)	20-29 years	38	13.2
	30-39 years	152	52.8
	40-49 years	78	27.1
	50 years and above	20	6.9
Education Level	Secondary school	47	16.3
	Diploma/Certificate	66	22.9
	Bachelor's degree	125	43.4
	Postgraduate degree	50	17.4
Employment Status	Employed full-time	214	74.3
	Employed part-time	34	11.8
	Unemployed	40	13.9
Monthly Household Income	Below RM 3,000	58	20.1
	RM 3,001 - RM 6,000	110	38.2
	RM 6,001 - RM 9,000	72	25.0
	Above RM 9,000	48	16.7

**Descriptive Statistics of the Main Psychological Constructs**

Descriptive statistics of the main psychological constructs of interest in the research, such as parental stress, perceived social support, and psychological resilience, were produced before the mediation and moderation analysis. Based on these analyses, the distribution of central tendency and dispersion of the data were summarized, demonstrating that the distributional assumptions, including normality, were reasonably met, as well as the general profile of the sample characteristics (N=288).

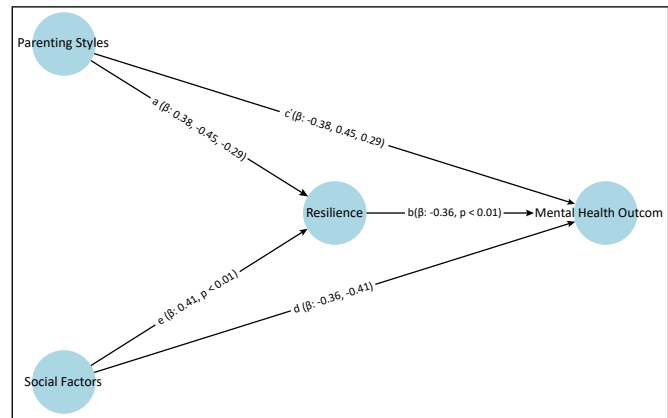
**Mediation Model Overview**

Thus, the descriptive data presented in Table 2 indicate the use of mediation models based on the PROCESS macro. This has been reflected in the relationships among parenting styles, social factors, parents' mental health, and resilience (Fig. 1). The direct correlations showed that authoritative parenting was negatively associated with stress ( $r = -0.38, p = -0.01$ ) and anxiety ( $r = -0.32, p = -0.01$ ). In contrast, authoritarian parenting was significantly associated with higher stress ( $\beta = 0.45, p < 0.01$ ) and anxiety ( $\beta = 0.37, p < 0.01$ ). Permissive parenting also demonstrated moderate positive associations with stress ( $\beta = 0.29, p < 0.05$ ) and anxiety ( $\beta = 0.26, p < 0.05$ ).

In addition to the direct relationships observed, psychological resilience was tested as an intervening variable in the analytical model. Greater resilience was significantly associated with reduced stress ( $\beta = -0.36, p < 0.01$ ) and anxiety ( $\beta = -0.41, p < 0.01$ ), underscoring

**Table 2:** Descriptive statistics for stress, social support, and resilience (n=288).

Variable	Instrument	Number of Items	Min	Max	Mean	Std. Deviation	Interpretation
Stress	Parental Stress Scale (PSS)	18	1.56	4.78	3.12	0.68	Moderate stress
Social Support	Social Support Scale (SSS)	20	2.03	5.00	3.84	0.72	High perceived support
Resilience	Parental Resilience Scale (PRS)	15	1.80	4.93	3.57	0.64	Moderate-high resilience



**Fig. (1):** Process macro mediation model with regression results.

its mediating role in the association between parenting styles and mental health outcomes. Furthermore, contextual and social variables, including perceived social support, educational attainment, and financial stability, showed positive associations with resilience ( $\beta = 0.41, p < 0.01$ ). Perceived social support was also inversely related to both stress ( $\beta = -0.36, p < 0.01$ ) and anxiety ( $\beta = -0.41, p < 0.01$ ), indicating its protective role for parental mental health.

**DISCUSSION**

The research sheds light on the connection between parenting styles and resiliency, social support, and mental health outcomes of Malaysian parents with young children after the pandemic. All the findings reported indicate associations between variables and should not be taken as evidence of causal relationships. The researchers concluded that authoritative parenting was related to reduced psychological stress and anxiety. Findings in this study would be consistent with previous theoretical and empirical literature, which proposes that parenting styles characterized by emotional responsiveness and balanced behavioral demands are associated with greater positive psychological outcomes for parents and children. In line with this argument, the existing evidence suggests that the supportive and non-indulgent characteristics of authoritative parenting were related to better parental mental health in the post-pandemic state of affairs.

In comparison, the practice of parenting characterized by strict control and low levels of emotional responsiveness was linked to high parental stress and anxiety levels. This tendency reflects the previous studies suggesting that punitive and controlling attitudes toward child-rearing are associated with worse psychological outcomes among the caregivers. Such features of parenting can be particularly relevant to post-pandemic recovery, as

economic pressures and societal instability persist. Similarly, lax parenting behaviors were also associated with very high rates of stress and anxiety, but in relative terms, the relationship was not as strong. The fact aligns with such conceptual frameworks, which define permissive parenting as having little structure and little boundary-setting.

Consequently, there is a likelihood that greater permissiveness also leads to higher levels of unpredictability in parent-child relations, which have been reported to increase psychological load in parents. This research builds on the body of existing literature as it places psychological resilience among the mediating mechanisms in the relationship between parenting styles and parental mental health. The mediation analysis with the help of the PROCESS Macro explained the multifaceted relationships between parenting strategies, resilience, social factors, and mental health outcomes, stress, anxiety, and depression. The results imply that parenting styles have direct and indirect effects on mental health, including resilience, and the process of differentiating between the pathways would be important [20].

In line with the postulation by Luthar and others [11], it seems the concept of resilience acts as a buffer mechanism that alleviates stress and enables adjustment to adversity. In the current research, higher resilience was associated with lower stress and anxiety, and authoritative parenting was a positive predictor of resilience, suggesting that emotionally supportive and structured parenting can help parents develop more positive, adaptive psychological assets. Additionally, the study demonstrated the critical importance of social factors, particularly feelings of social support, levels of education, and economic security, in improving resilience and directly alleviating psychological distress. These results align with the stress-buffering hypothesis proposed by Cohen and Wills [21], according to which social support is linked to lower levels of stress and anxiety, which fits stress-buffering models. The current study, in accordance with Taylor [22], supports the argument that strong social connections are linked to greater resilience and reduced parental stress and anxiety, particularly during extended periods of social and economic deprivation. Altogether, the results are reminiscent of the global post-pandemic mental health studies that have emphasized the ongoing mental health expenditure on families [8, 23]. But the study is a new contribution as it seeks to model the direct and indirect routes through which parenting styles and social support have an impact on mental health, especially in the Malaysian urban setting, where integrative studies are much fewer.

As a result of the recent post-pandemic studies, the role of family functioning and social environments in the formation of psychological outcomes has become more and more significant. Research on Western

populations has revealed that family support networks and excessive caregiving are connected with a high rate of stress among the parents [8, 9]. Conversely, the current research showed rather moderate stress among Malaysian parents with high resilience. Such differences can be explained by cultural peculiarities, including Malaysia's collectivistic orientation, where strong family cohesion and communal coping styles remain key factors in psychological adaptation. Such cultural dynamics can help explain why perceived social support in this study acted as a stronger barrier to psychological distress than in studies conducted in more individualistic societies.

Besides, most of the current literature in Western settings views resilience as a characteristic of the individual level (e.g., Graupensperger *et al.* [7]; Shabbir *et al.* [10]), whereas the current study has a wider viewpoint, as resilience is considered as a social phenomenon as well as an ecological phenomenon. In this perspective, resilience is influenced by an individual's coping strength as well as broader social and economic factors. This explanation is likewise the same as that of Gayatri and Irawaty [2], who pointed out that resilience at the family level, rather than only at the individual level, is necessary to maintain well-being amidst adversity. In this regard, the comparatively high mediating role of resilience in the given study could be attributed to the tendency of Malaysian family systems to be interdependent and to the continued reliance of Malaysian people on informal emotional and material support systems, especially as they adjust to the post-pandemic reality.

Another aspect of the findings of this study that raises questions is the common belief that permissive parenting inevitably results in unfavorable mental health outcomes. Though permissiveness was also associated with high stress, its correlation was not as strong as previously reported in Western research. This difference can be attributed to Malaysia's sociocultural background, which often encourages extended family members to share the caregiving burden, thereby mitigating some of the potential disadvantages of closely organized parenting styles. These findings highlight the context-sensitive nature of parenting behavior and indicate that the psychological outcomes of alternative parenting styles are mediated by generalized cultural, social, and economic factors rather than working in similar ways across societies.

The combination of these two studies is a meaningful theoretical contribution by the authors, as it brings together parenting styles, psychological resilience, and social support into a single model of parental mental health in a Southeast Asian context. An important novelty of the current study is the intentional inclusion of fathers in the investigation of parenting styles and mental health outcomes, in addition to mothers. Available literature to date in this field has placed significant focus on mothers, thereby limiting the generalizability of results to male experiences. With a sufficiently large sample of fathers,

this research expands the boundaries of the previous studies and provides a more in-depth view of the mental health of parents in the post-pandemic years.

On a methodological level, the study contributes to previous research by testing both mediating and moderating processes simultaneously in a post-pandemic context, thereby enabling a better understanding of the interactions between psychological and social variables. Applied-wisely, the results reveal the importance of culturally responsive interventions that go beyond an individual-based coping strategy and incorporate strengthening both community- and family-based support systems. Such a combination of methods will be especially useful in the middle-income settings, including Malaysia, where the availability of formal mental health services is still low, and family structures still serve as a key source of psychological strength.

### **RESEARCH LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

This study also has several limitations that should be addressed. Firstly, parenting practices may also be analyzed in terms of autonomy-supportive and controlling practices, as formulated within the Self-Determination Theory (SDT). Still, the current study did not clearly use an SDT-based framework. Past SDT-based research has emphasized how autonomy support, positive affective experiences, and self-efficacy can affect the psychological outcomes of parents and children [24]. The fact that these constructs were not considered limits direct comparison between the results obtained and those from SDT-oriented studies. Based on this, future studies would be advantageous to include SDT-related variables, such as parental autonomy support, positive affect, and self-efficacy, to develop a more detailed theoretical explanation of the mechanisms underlying parental mental health.

Second, although both mothers and fathers were represented in the sample, gender was studied mainly at the descriptive level as a moderating variable. Although comparisons across mothers and fathers on the main constructs did not show significant differences between the two groups, the study was not adequately designed to determine gender-specific pathways or interaction effects. Further studies with larger, more uniformly distributed samples are suggested to investigate whether the correlations between parenting styles, psychological resilience, social support, and mental health outcomes differ statistically by parental gender.

Lastly, the researchers did not use a longitudinal design, which constrained the ability to make causal inferences, and the sole use of self-report measures increased the risk of common method bias. An analogous analysis of longitudinal designs and multi-mode data collection would be applicable in future studies, allowing a more stringent analysis of variation in parenting behaviors

and parental mental health over time and strengthening causal inferences.

### **CONCLUSION**

The current research highlights the complexity of the interactions between parenting practices and approaches, mental and psychological strength, social factors, and mental illness in the Malaysian context after the pandemic. The findings show that educational parenting was found to have low stress and anxiety, whereas authoritarian and lenient parenting styles were found to have raised the levels of psychological distress. Psychological resilience was found to be a critical process through which such relationships were mediated, and the stronger the resilience, the greater the positive mental health outcomes. Moreover, there was a close correlation between perceived social support and resilience, as well as parental well-being overall.

On the whole, the findings are consistent with the wider global literature and add new knowledge to the field by incorporating parental mental health into the Malaysian sociocultural and economic context in the post-COVID era. The results can provide empirically informed policies to policymakers, mental health professionals, and community-based organizations. Some interventions that are particularly effective in meeting parental mental health needs during the post-pandemic phase include those that facilitate adaptive parenting behaviors, strengthen psychological resilience, and enhance social support systems, and are generalized to family well-being and developmental outcomes in children.

### **ETHICS APPROVAL**

The study was approved by the university's ethical committee, UTM Research Ethics Committee, approval no.: UTMREC-2024-68, application no.: NC-01-24-77. All procedures performed in studies involving human participants were following the ethical standards of the institutional and/ or national research committee and the Helsinki Declaration.

### **CONSENT FOR PUBLICATION**

Written informed consent from all participants in the study was obtained.

### **AVAILABILITY OF DATA**

Data is available within the article. For any other information, contact the corresponding author.

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### **CONFLICT OF INTEREST**

The authors declare no conflict of interest.

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Declared none.

## AUTHORS' CONTRIBUTION

NAY: Conceptualization and development of the original research idea; design of the study framework.

NAY, NM, SFA, SK: Substantial contributions to the research design and to the acquisition, analysis, and interpretation of data.

NAY: Primary drafting of the manuscript.

NM, SFA, SK: Critical review and revision of the manuscript for important intellectual content.

NAY, NM, SFA, SK: Final approval of the version to be published.

NAY, NM, SFA, SK: Agreement to be accountable for all aspects of the work, ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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