IS MINDFULNESS A CURE FOR BURNED-OUT PARENTS? THE RELATIONSHIPS BETWEEN PARENTAL BURNOUT, PARENTAL MEDIATION STRATEGIES, AND MINDFULNESS

Nur Raihan Muhd Fauzi[1] **& Nor Diana Mohd Mahudin**
Department of Psychology
Kuliyyah of Islamic Revealed Knowledge and Human Sciences
International Islamic University Malaysia

Abstract

Parental burnout is increasing within the Malaysian landscape. However, literature on parental burnout's consequences and moderating factors is still in its infancy. Accordingly, this study examines the relationship between parental burnout, mediation strategies, and mindfulness. A total of 226 parents (Father = 49; Mother = 177) between 24 and 50 years old responded to a questionnaire consisting of the Brief Parental Burnout scale (BPBs), Parental Mediation Strategy scale (PMSS), and Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). The findings reveal that parental burnout significantly predicts co-use, general restrictive mediation, and content-specific restrictive mediation. Burned-out parents are most likely to reduce co-use but increase restrictive mediations in their children's mobile device use. The findings also indicate that mindfulness could act as a buffer that prevents or curbs the influence of parental burnout.

Keywords: Burnout, mindfulness, mobile device use, parental mediation strategies, parents

[1]Corresponding Author: missnur7171@gmail.com

INTRODUCTION

Parental burnout, which is a prolonged response to chronic stress, has four characteristics: (i) emotional exhaustion, (ii) emotional distancing from their children, (iii) loss of satisfaction in one's parental role, and (iv) contrast from one's previous parental self (Roskam et al., 2018). Recent studies are emerging with reports of an increase in parental burnout, especially during the pandemic (Chen et al., 2022; Manja et al., 2020; Wiemer & Clarkson, 2023); hence, reflecting the current status of parental burnout globally and locally. This phenomenon is even more prominent in dual-working parents who face difficulties accommodating work and child-rearing duties (Wang et al., 2022). Its prevalence is evidenced by the effects observed. On the one hand, parents who experienced burnout have reported being emotionally and mentally exhausted, losing satisfaction from their parental roles, having decreased quality sleep time, and increased somatic symptoms (Griffith, 2020; Roskam & Mikolajczak, 2020). On the other hand, children of burned-out parents are often the victims of violence, neglect, and even abuse (Griffith, 2020; Roskam et al., 2018).

Nowadays, young children and mobile devices have become inseparable more than ever. Children become experts at a very tender age as they quickly master the operations of using mobile devices, such as smartphones, tablets and smartwatches (Neumann, 2015). It is established that parents are responsible for shaping their children's mobile device use as they are the gatekeepers, scaffolders, and mediators when their children engage in screen time (Dias et al., 2016). In developmental research, how parents engage with their children's mobile device use is known as parental mediation strategies (Zaman et al., 2016). These strategies can range from active mediation (i.e., a discussion between parent and child regarding the media contents), co-use (i.e., a parent-child joint engagement without any necessary discussion about media use and content), and general restrictive mediation (i.e., general rules and limitations for media use) to content-specific restrictive mediation (i.e., rules and regulations regarding media contents) as well as supervision (i.e., allowing children to engage in media within parental vicinity) (Nikken & Jansz, 2014).

Parental mediation strategies are known to have positive impacts on young children. For instance, active mediation has been found to boost children's digital skills (Domoff et al., 2019). Additionally, studies by Zack and Barr (2016) and Esteraich (2018) reported that co-using mobile devices could facilitate children's learning and promote children's self-control. Meanwhile, a general restrictive mediation strategy is beneficial in shaping children's healthy mobile device use and protects against smartphone addiction (Chang et al., 2019). Similarly, research has shown that supervision could ensure children's online awareness and safety, so having personal freedom to use mobile devices while supervised may promote self-autonomy (Nikken & Jansz, 2014).

Implementing parental mediation strategies is challenging. Nikken and de Haan (2015) highlighted several examples, such as parents' perception of the negative influence of media towards children, the presence of older children, children who are active on social media, and children's age and media skills. Studies have also reported that burnout syndrome can influence parents' abilities to carry out mediation strategies. Mikolajczak and Roskam (2018) argued that parents experiencing burnout are emotionally exhausted, and as such, they may lack the emotional and psychological resources to attend to their children's needs. Therefore, it is likely that they may apply mediation strategies ineffectively.

Researchers (e.g., Brianda et al., 2020) have suggested that parents should be equipped with the necessary psychological capital or resources to adapt to the new environment and mitigate the challenges in mediating mobile device use. One such tool is mindfulness, which can act as a protective mechanism to enhance parental resources. Mindfulness is the ability to bring awareness by purposefully paying attention to the present moment-by-moment without any judgements (Kabat-Zinn, 2003). The protective impact of mindfulness has been thoroughly investigated in various contexts (e.g., Han et al., 2021; Pflügner et al., 2021; Singh et al., 2021). For instance, it reduces anxiety, depression, and parental stress (Corthorn, 2018; Corthorn & Milicic, 2016; Lo et al., 2019). A study by Jones (2019) indicated that being mindful allows parents to be aware of their internal state. When parents know their internal state, they can identify the stressors contributing to hostile parenting.

Mindfulness is also protective against parental burnout (Paucsik et al., 2021) and emotional regulation (Swit & Breen, 2022). In other words, the impact of burnout symptoms can be reduced as mindful parents can regulate their emotions better. Children, too, are impacted when their parents are being mindful. For example, research has shown that parental mindfulness influences children's emotional regulation and mental health (Kil et al., 2022; Siu et al., 2016; Zhang et al., 2019). Hence, it can be concluded that mindfulness positively influences parents and children.

LITERATURE REVIEW

Parental Burnout, Parental Mediation Strategies, and Mindfulness as a Moderator

When parents are mindful of their internal state and can cope healthily in times of difficulty, it is easier for them to fulfil their parenting demands. Hence, parents with higher mindfulness would have lower stress due to their ability to appraise personal situations less stressful (Corthorn, 2018; Corthorn & Milicic, 2016). Moreover,

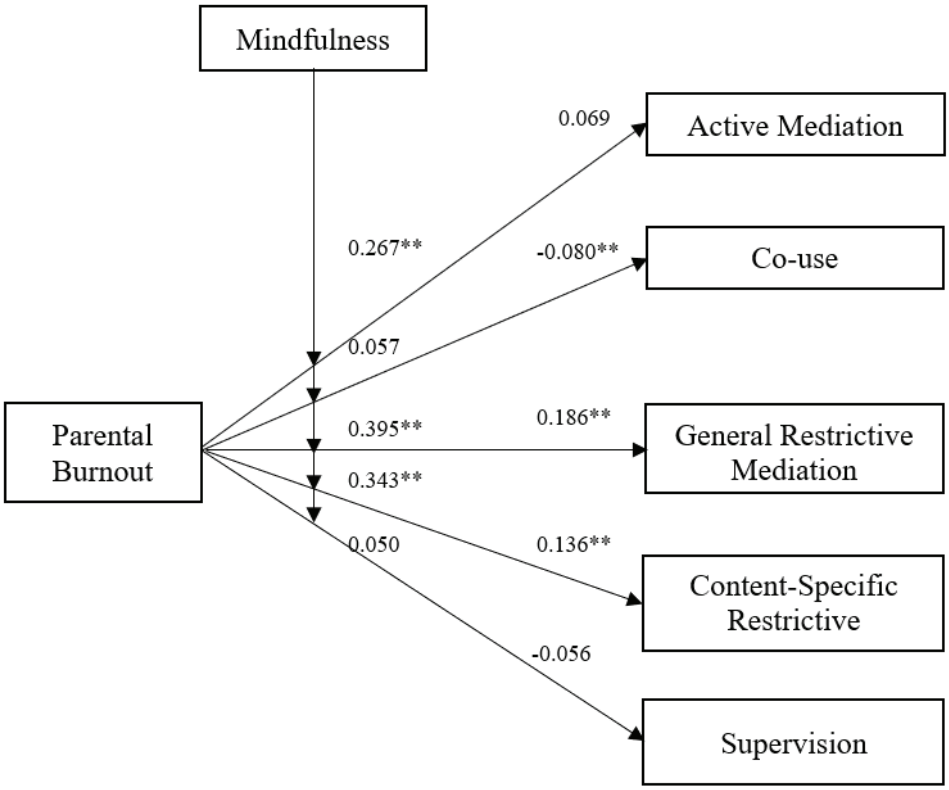
parents with higher mindfulness may have more parental resources as they can cope with stressful situations (Paucsik et al., 2021). Subsequently, parents would have the mental capacity and adequate energy to apply parental mediation strategies. Therefore, parents with higher mindfulness would likely use more parental mediation strategies.

It is vital to cultivate protective factors to buffer the effect of parental burnout (Vertsberger et al., 2022; Woine et al., 2022), especially during a pandemic. A study on the role of mindfulness towards parental stress suggested that the higher the parent's mindfulness, the less stressful the parents are (Corthorn & Milicic, 2016). Hypothetically, since parental stress is a predictor of burnout (Skjerdingstad et al., 2021; Vaydich & Cheung, 2022), it is conceivable that when parents are more mindful, parent stress will be lessened, and so parental burnout. Therefore, in the context of the present study, mindfulness could mitigate the impact of parental burnout towards parental mediation strategies.

In the Malaysian context, more investigation still needs to be into the relationships between parental burnout, parental mediation strategies, and mindfulness. Since well-being matters for parents to carry out their parental responsibilities, there is an urgency to investigate whether burnout impacts the parent's ability to apply mediation strategies and if mindfulness could act as a protective factor against parental burnout. Ideally, to empower family development, parents are at the heart of the familial institution. Hence, more focus should be directed at these particular members of society. Additionally, it is imperative to identify the root cause and the possible solution to overcome the issue. In this regard, parental burnout may be the hidden issue that hinders parents from practising effective mediation strategies in their children's mobile device use. On the other hand, mindfulness could be a plausible answer to overcome and prevent parental burnout syndrome.

According to the Ecological Techno-Subsystem theory (Johnson & Puplampu, 2008), in addition to the micro, meso, exo, macro, and chrono systems, children interact, affect, and are affected by the ecological techno-subsystem. Therefore, as part of the ecological techno-subsystem, the Internet, via mobile devices, can influence children's microsystems and, by extension, their development. Drawing on this theory, we hypothesise that parental burnout will significantly predict active mediation, co-use, general restrictive mediation, content-specific restrictive mediation, and supervision. We also hypothesise that when mindfulness increases, the less parental burnout, the more parental mediation increases. The hypothesised relationships are illustrated in Figure 1.

Figure 1 The Relationships Between Parental Burnout, Mindfulness, and Parental Mediation Strategies



METHOD

Study design and participants

Ethical approval and permission to use the scales were obtained before collecting the data. These scales were prepared as an online survey with Google Forms and demographic questions, such as age, gender, ethnic group, state, and employment status. Then, a link to the survey was distributed via WhatsApp, Facebook, Twitter, Instagram, emails, and phone calls. The link was also sent to children's nursery groups, parents' social support networks, and other relevant groups to ensure widespread distribution. Enumerators were also engaged to follow up and expedite the data collection process.

Participants are eligible to participate if they are Malaysian, dual-working parents, and have at least one child from 0 to 6 years old. The study received 226 responses from participants who fulfilled the inclusion criteria, mostly from mothers (n = 177)

between the ages of 24 and 50 (Mage = 33.5, SD = 5.5). The majority of participants are Malay (97.3%), bachelor's degree holders (65.9%), office workers (54%), and residents of Selangor (49.1%). These demographic characteristics are summarised in Table 1.

Table 1 Participant's Demographic Characteristics

Parents' Characteristics	**n**	**%**	**M**	**SD**
Gender				
Male	49	21.7		
Female	177	78.3		
Age			33.5	5.5
Race				
Malay	220	97.3		
Chinese	3	1.3		
Indian	1	.4		
Others	2	.9		
Highest education				
Primary school	1	.4		
Secondary school	3	1.3		
Sijil Tinggi Pelajaran Malaysia, Foundation / Matriculation, Diploma or equivalent	42	18.6		
Bachelor's degree	149	65.9		
PhD or Master's degree	29	12.8		
Other	2	.9		
State of location				
Johor	11	4.9		
Kedah	6	2.7		
Kelantan	6	2.7		
Melaka	9	4.0		
Negeri Sembilan	10	4.4		
Pahang	1	.4		

Continue Table 1

Parents' Characteristics	n	%	M	SD
Perak	13	5.8		
Perlis	3	1.3		
Pulau Pinang	15	6.6		
Sabah	2	.9		
Sarawak	1	.4		
Selangor	111	49.1		
Terengganu	5	2.2		
WP Kuala Lumpur	27	11.9		
WP Putrajaya	6	2.7		
Occupation				
Office work	122	54.0		
Service or sales	25	11.1		
Delivery or driving	6	2.7		
Manufacturing/factory work	4	1.8		
Self-employed	37	16.4		
Others	32	14.2		

Measures

Parental burnout: The Brief Parental Burnout scale (BPBs: Aunola et al., 2020; 2021) was utilised to measure parental burnout. It assesses three dimensions of parental burnout: (i) exhaustion in the parental role, (ii) feelings of inadequacy as a parent, and (iii) emotional distancing from one's children. The cut-off score for parents experiencing burnout or at risk is 2 (i.e., participants selected daily for one item or once or twice a week for two items from the five items). The total score is calculated by adding A (1 point), B (2 points), and C (3 points) answers together. Internal consistency for this scale is good in the present study ($\alpha = .83$).

Parental mediation strategies: This variable was measured using the Parental Mediation Strategy scale (PMSS: Nikken & Jansz, 2014) consisting of five subscales reflecting active mediation, co-use, general restrictive mediation, content-specific restrictive mediation, and supervision. The scale was presented in the form of a five-

point Likert scale ranging from 1 (never) to 5 (always) (very often). The mean score for each mediation strategy was obtained separately from the sub-scales. In this study, the internal consistency values for all sub-scales are high: active mediation (α = .91), co-use (α = .75), general restricted mediation (α = .86), content-specific restrictive mediation (α = .90), and supervision (α = .86).

Parents' dispositional mindfulness: The Cognitive and Affective Mindfulness Scale-Revised was used to assess parents' dispositional mindfulness (CAMS-R: Feldman et al., 2007). The scale was presented on a four-point Likert scale ranging from 1 (rarely/never) to 4 (almost always). Higher scores on this scale imply higher levels of mindfulness attributes. Items 2, 6, and 7 were reverse-scored before calculating the overall score. The scale's internal consistency in the present study is also good (α = .85).

DATA ANALYSIS

IBM SPSS Statistics Version 22 was used to analyse the data. Initial data screening was conducted to ensure the data was complete and test the assumptions. The data were then subjected to descriptive, regression, and moderation analyses.

RESULTS

Examining histograms of standardised predicted values against standardised residuals and normal probability plots indicates that linearity was met, the residuals are normally distributed, and there is no violation of the assumption of homoscedasticity. For the relationship between parental burnout and parental mediation strategies, the Tolerance value is .843, while the variance inflation factor (VIF) value is 1.187, below the cut-off of 10 (Field, 2013), suggesting no multicollinearity.

Descriptive statistics results (Table 2) show that the total Brief Parental Burnout Scale (BPBs: Aunola et al., 2021) values range from 0 to 10 (M = 2.2, SD = 2.4), with 55.3% of the participants had or were at risk of parental burnout. Participants have a mean score of 2.9 (SD = 1.2) for active mediation and a mean of 3.1 (SD = 1.1) for co-use. Other strategies yielded the following results: general restrictive mediation (M = 3.3, SD = 1.4), content-specific restrictive mediation (M = 2.5, SD = 1.4), and supervision (M = 4.0, SD = 1.1). As for the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R: Feldman et al., 2007), the total scores for parents' mindfulness varied from 1 to 4, with a mean of 3.0 (SD = 0.5).

Table 2 Descriptive Statistics of Variables

Variable	M	SD	α	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE	
Parental burnout	2.19	2.39	.83	1.24	.16	1.46	.32
Parental mediation strategies							
Active mediation	2.91	1.24	.91	-.15	.16	-1.15	.32
Co-use	3.06	1.13	.75	-.23	.16	-.63	.32
General restrictive mediation	3.31	1.38	.86	-.52	.16	-1.04	.32
Content-specific restrictive mediation	2.53	1.42	.90	.46	.16	-1.18	.32
Supervision	3.96	1.08	.86	-1.18	.16	.98	.32
Mindfulness	3.02	0.52	.85	-.44	.16	-.47	.32

Before conducting regression analyses, Pearson's correlation analysis was carried out to examine the intercorrelations among the variables (Table 3). The results show a significant relationship between parental burnout and co-use, general restrictive mediation, content-specific restrictive mediation, and supervision. There was also a negative, significant correlation between parental burnout and mindfulness. Active mediation was positively and significantly correlated with co-use, general restrictive mediation, content-specific restrictive mediation, and supervision. However, no significant correlation was found between active mediation and mindfulness.

Table 3 Intercorrelations Among the Variables

Variable		1	2	3	4	5	6	7
1	Parental burnout	1	.072	-.181**	.290**	.179**	-.186**	-.581**
2	Active mediation		1	.587**	.764**	.700**	.349**	-.025
3	Co-use			1	.462**	.478**	.514**	.187**
4	General restrictive mediation				1	.735**	.281**	-.226**
5	Content-specific restrictive mediation					1	.268**	-.066
6	Supervision						1	.333**
7	Mindfulness							1

**Correlation is significant at the 0.05 level (2-tailed).*

***Correlation is significant at the 0.01 level (2-tailed).*

Results also show statistically significant positive correlations between co-use and general restrictive mediation, content-specific restrictive mediation, and supervision. There was a significant, positive correlation between co-use and mindfulness. General restrictive mediation was significantly correlated with content-specific restrictive mediation, supervision, and mindfulness. Content-specific restrictive mediation was significantly correlated with supervision but not so with mindfulness. Finally, there was a significant relationship between supervision and mindfulness.

Next, multiple regression analyses were conducted to test whether parental burnout predicts active mediation, co-use, general restrictive mediation, content-specific restrictive mediation, and supervision while controlling for the influence of social desirability. We found that parental burnout significantly predicts co-use (B = -.080, β = -.170, p = .019), general restrictive mediation (B = .186, β = .322, p < .001), and content-specific restrictive mediation (B =.136, β =.229, p =.001). However, when active mediation (B = .069, β = .131, p = .069) and supervision (B = -.056, β = -.123, p = .084) were regressed onto parental burnout, no statistically significant results were obtained. These results are summarised in Table 4 and Figure 1.

Table 4 Regression Coefficients for Predicting Active Mediation, Co-Use, General Restrictive Mediation, Content-Specific Restrictive Mediation, and Supervision

		B	*SE*	*β*	*t*	*p*
Criterion: Active mediation						
Predictor	Social desirability	.079	.038	.150	2.076	.039*
	Parental burnout	.069	.038	.131	1.824	.069
R2 = 2.4%, F (2, 223) = 2.75, p = .066.						
Criterion: Co-use						
Predictor	Social desirability	.013	.034	.027	.371	.711
	Parental burnout	-.080	.034	-.170	-2.37	.019*
R2 = 3.3%, F (2, 223) = 3.84, p = .023.						
Criterion: General restrictive mediation						
Predictor	Social desirability	.047	.041	.080	1.151	.251
	Parental burnout	.186	.040	.322	4.625	.000**
R2 = 9%, F (2, 223) = 10.97, p < .001.						
Criterion: Content-specific restrictive mediation						
Predictor	Social desirability	.077	.043	.127	1.786	.075
	Parental burnout	.136	.042	.229	3.217	.001**
R2 = 4.6%, F (2, 223) = 5.33, p = .005.						

Criterion: Supervision						
Predictor	Social desirability	.072	.033	.157	2.219	.027*
	Parental burnout	-.056	.032	-.123	-1.74	.084

R2 = 5.5%, F (2, 223) = 6.53, p = .002.

Notes:

Only final models are presented.

*Significant at the 0.05 level.

**Significant at the 0.01 level.

In the final analyses, mindfulness was tested to see whether or not it alters the direction or strength of the relationship between parental burnout and parental mediation strategies. PROCESS Model 1 with 5000 bootstraps by Hayes (2012) was used to test this hypothesis. When parental burnout was entered as the predictor (X), active mediation as the criterion (Y), and mindfulness as the moderator (W), there was a significant interaction, B = .267, SE = .058, t(222) = 4.607, p < .001, indicating that mindfulness moderates the relationship between parental burnout and active mediation.

The general restrictive and content-specific restricted mediation results also follow a similar pattern. More specifically, we found that the interaction effect between parental burnout and general restrictive mediation was significant, B =.395, SE =.059, t(222) = 6.734, p < .001. Similarly, mindfulness increased the relationship between parental burnout and content-specific restrictive mediation, B =.343, SE =.064, t(222) = 5.352, p < .001. The results also reveal that mindfulness has no significant interaction effect on parental burnout and co-use, B =.057, SE =.054, t (222) = 1.052, p =.294, as well as between parental burnout and supervision, B =.058, SE =.050, t (222) = 1.164, p =.246. All these results are depicted in Table 5 and Figure 1.

Table 5 Interaction Effects

Interaction effect of mindfulness	*B*	*SE*	95% CI		*t*	*p*
			Lower	Upper		
Between parental burnout and active mediation						
(Constant)	3.104	.089	2.928	3.280	34.713	.000
Parental burnout	.134	.045	.045	.223	2.963	.003
Mindfulness	.109	.189	-.264	.482	.577	.564
Interaction	.267	.058	.153	.381	4.607	**< .001****
R2 = .092, F (3, 222) = 7.533, p < .001.						
Between parental burnout and co-use						
(Constant)	3.096	.083	2.933	3.260	37.328	.000
Parental burnout	-.033	.042	-.115	.050	-.774	.440
Mindfulness	.280	.175	-.066	.626	1.598	.112
Interaction	.057	.054	-.049	.163	1.052	.294
R2 =.048, F (3, 222) = 3.699, p =.013.						
Between parental burnout and general restrictive mediation						
(Constant)	3.594	.091	3.416	3.773	39.708	.000
Parental burnout	.270	.046	.180	.360	5.893	.000
Mindfulness	-.161	.191	-.538	.217	-.839	.402
Interaction	.395	.059	.280	.511	6.734	**< .001****
R2 =.244, F (3, 222) = 23.841, p < .001.						

**Significant at the 0.01 level.

Continue Table 5

Interaction effect of mindfulness	*B*	*SE*	95% CI		*t*	*p*
			Lower	Upper		
Between parental burnout and content-specific restrictive mediation						
(Constant)	2.778	.099	2.583	2.973	28.087	.000
Parental burnout	.240	.050	.142	.339	4.798	.000
Mindfulness	.220	.209	-.192	.632	1.051	.295
Interaction	.343	.064	.217	.470	5.352	**< .001****
R2 =.145, F (3, 222) = 12.503, p < .001.						
Between parental burnout and supervision						
(Constant)	4.000	.077	3.849	4.151	52.206	.000
Parental burnout	.024	.039	-.052	.101	.628	.531
Mindfulness	.719	.162	.399	1.038	4.434	.000
Interaction	.058	.050	-.040	.156	1.164	.246
R2 =.116, F (3, 222) = 9.724, p < .001.						

**Significant at the 0.01 level.

DISCUSSION

This study sets out with two objectives. The first is to investigate whether or not parental burnout predicts parental mediation strategies, while the second is to explore the role of mindfulness in the relationship between parental burnout and parental mediation strategies. Our findings indicate that parental burnout is not an exception in Malaysia, reinforcing past literature's findings regarding the rise of parental burnout throughout the global population (Roskam et al., 2021). This phenomenon is evidenced by more than half of the participants (55.3%) experiencing or being at risk of parental burnout.

In line with our first research objective, the present study found that parental burnout predicts co-use, general restrictive mediation, and content-specific restrictive mediation. In particular, the results show that parents with burnout symptoms would reduce co-using mobile devices with their children but apply more general and content-specific restrictive mediations. This is an important finding, revealing that parents experiencing burnout may need more parental resources, such as time and energy (Mikolajczak & Roskam, 2018), reducing their motivation and the corresponding efforts to apply co-use.

On the other hand, burned-out parents would increase restrictive mediations due to the need to regain control (Albanese et al., 2019). When parents lack self-efficacy, they will regain it by exercising their authority by force. For example, when parents are too exhausted to deal with children's misbehaviour, they may find restricting children's mobile devices an efficient method to manage their children's mobile devices. They may develop a sense of 'control' by imploring compliance in their children's mobile device use (Wu et al., 2014).

The results also show parental burnout did not significantly predict active mediation and supervision. This result is likely due to a reduction in parental resources so that as parental burnout increases, the parent's motivation to apply these strategies is reduced. Furthermore, parents with lower self-efficacy are less likely to discuss with their children regarding online media (Hwang et al., 2017). When parents experience parental burnout and, at the same time, lack self-efficacy, it could further deplete any efforts from parents to apply parental mediation strategies.

Our results for the second research objective demonstrate that mindfulness moderates the relationship between parental burnout and active mediation, general restrictive mediation, and content-specific restrictive mediation. Therefore, more mindful parents practice more active mediation, general restrictive mediation, and content-specific restrictive mediation. Three possible explanations may account for these results. First, when parents can regulate their emotional state, it reduces the symptoms of parental burnout, allowing parents to be more mindful of their parenting responsibilities. In this context, when parents are more mindful, parents with burnout symptoms would practice more of these mediation strategies.

Second, the ability of parents to be more accepting of their own experiences via mindfulness (Paucsik et al., 2021) may play a role. When parents are more receptive to their surrounding situation, they can cope better in a stressful environment. Subsequently, parents with more mindfulness can fulfil parental demands (Rivera et al., 2022). Therefore, parents with burnout symptoms would increase these mediation strategies as mindfulness increases. Third, the results support previous studies that mindfulness can improve emotional well-being via attention regulation (Feldman et al., 2007; Feldman et al., 2022). When parents focus on the present, it helps them redirect their attention to the parental goal instead of focusing on the negative impact of parental burnout. When parents are mindful of that goal, it reminds them to apply parental mediation strategies. Hence, the increased mindfulness helps burned-out parents to engage in more of these mediation strategies.

IMPLICATIONS FOR FUTURE RESEARCH

The findings of this study point to possible implications for the need to address burnout among parents. Clearly, parental burnout jeopardises the family institution and could further aggravate job burnout symptoms. Therefore, this study recommends using parental burnout screening tools to detect the early onset of parental burnout. The literature has shown that early detection could allow earlier intervention before symptoms become debilitating. Hence, early detection of parental burnout could mitigate its deleterious effects. In addition, this study found that mindfulness is a significant moderator in the relationship between parental burnout and some parental mediation strategies such as active mediation, general restrictive and content-specific restrictive mediation. These findings provide the basis for further studies and investigation on mindfulness-based programmes to reduce the impact of parental burnout towards parental mediation strategies.

Despite these implications, the generalisability of our findings is limited due to their cross-sectional nature, reliance on self-report measures, and imbalance in gender representation in the study. In response to these limitations, it is suggested that future studies conduct in-depth or longitudinal studies that can provide richer data and uncover the underlying mechanism of parental burnout in the Malaysian context. These designs can address the inherent limitations of cross-sectional design, such as reliance on self-report measures and the inability to delineate cause-effect relationships. Second, future studies should recruit more male participants to ensure that any gender differences in parental burnout can be determined. Also, the present study needed help to engage in cross-cultural discussions. Therefore, to avoid the misinterpretation of parental burnout among Malaysian dual-working parents, future studies should include a more diversified sample population by recruiting other significant races in the country. Doing this can further confirm the occurrence of parental burnout and allow the generalisation of information for a wider population.

CONCLUSION

In conclusion, parents with burnout symptoms would decrease applying co-use in mediating the children's mobile device use. Instead, they would apply more restrictive mediations. Furthermore, more mindful parents would practice more active mediation, general restrictive mediation, and content-specific restrictive mediation. Therefore, the final takeaway from this study is that mindfulness does help parents with burnout syndrome to practice more meditation strategies. In one sense, it can be interpreted that mindfulness is a beneficial psychological capital for working parents with burnout symptoms.

ACKNOWLEDGEMENTS

The authors thank all participants for the time they dedicated to participating in this research. Ethical approval for this study was obtained from the IIUM Research Ethics Committee (Ref: IIUM/504/14/11/2/ IREC 2021-216). The authors declare they have no competing interests.

REFERENCES

Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child: Care, Health and Development, 45*(3), 333-363. https://doi.org/10.1111/cch.12661

Aunola, K., Sorkkila, M., & Tolvanen, A. (2020). Validity of the Finnish version of the Parental Burnout Assessment (PBA). *Scandinavian Journal of Psychology, 61*(5), 714-722. https://doi.org/10.1111/sjop. 12654.

Aunola, K., Sorkkila, M., Tolvanen, A., Tassoul, A., Mikolajczak, M., & Roskam, I. (2021). Development and validation of the Brief Parental Burnout Scale (BPBS). *Psychological Assessment*, 33(11), 1125-1137. https://doi.org/10.1037/pas0001064

Brianda, M. E., Roskam, I., Gross, J. J., Franssen, A., Kapala, F., Gérard, F., & Mikolajczak, M. (2020). Treating parental burnout: Impact of two treatment modalities on burnout symptoms, emotions, hair cortisol, and parental neglect and violence. *Psychotherapy and Psychosomatics, 89*(5), 330-332. https://doi.org/10.1159/000506354.

Chang, F. C., Chiu, C. H., Chen, P. H., Chiang, J. T., Miao, N. F., Chuang, H. Y., & Liu, S. (2019). Children's use of mobile devices, smartphone addiction, and parental mediation in Taiwan. *Computers in Human Behaviour, 93*, 25-32. https://doi.org/10.1016/j.chb.2018.11.048

Chen, M., Bai, Y., Fu, M., Huang, N., Ahmed, F., Shahid, M., Wang, X., Liu, C., Feng, X. L., & Guo, J. (2022). The associations between parental burnout and mental health symptoms among Chinese parents with young children during the COVID-19 pandemic. *Frontiers in Psychiatry*, 13, Article 819199. https://dx.doi.org/10.3389%2Ffpsyt.2022.819199

Corthorn, C. (2018). Benefits of mindfulness for parenting in mothers of preschoolers in Chile. *Frontiers in Psychology, 9*, Article 1443. https://doi.org/10.3389/fpsyg.2018.01443

Corthorn, C., & Milicic, N. (2016). Mindfulness and parenting: A correlational study of non-meditating mothers of preschool children. *Journal of Child and Family Studies, 25*(5), 1672-1683. https://doi.org/10.1007/s10826-015-0319-z

Dias, P., Brito, R., Ribbens, W., Daniela, L., Rubene, Z., Dreier, M., Gemo, M., Di Gioia, R. & Chaudron, S. (2016). The role of parents in the engagement of young children with digital technologies: Exploring tensions between rights of access and protection, from 'Gatekeepers' to 'Scaffolders'. *Global Studies of Childhood, 6*(4), 414-427. https://doi.org/10.1177%2F2043610616676024

Domoff, S. E., Radesky, J. S., Harrison, K., Riley, H., Lumeng, J. C., & Miller, A. L. (2019). A naturalistic study of child and family screen media and mobile device use. *Journal of Child and Family Studies, 28*(2), 401-410. https://dx.doi.org/10.1007%2Fs10826- 018-1275-1

Esteraich, J. M. (2018). Young Children's Use and Parent-child Co-use of Tablets: *Investigating Mobile Media's Effects on Children's Executive Function* [Doctoral dissertation, The University of Nebraska-Lincoln]. ProQuest Dissertations Publishing. https://www.proquest.com/openview/b8f0576811ba383f1ff7241d316e1353/1?pq-origsite=gscholar&cbl=18750

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. P. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and Behavioural Assessment*, 29(3), 177-190. https://doi.org/10.1007/s10862-006-9035-8

Feldman, G., Westine, M., Edelman, A., Higgs, M., Renna, M., & Greeson, J. (2022). Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). In O. N. Medvedev, C. U. Krägeloh, R. J. Siegert, N. N. Singh (Eds.) Handbook of assessment in mindfulness research (pp. 1-24). *Springer International Publishing*. https://doi.org/10.1007/978-3-030-77644-2_19-1

Field,A.(2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). SAGE Publications Ltd.https://books.google.com.my/books?hl=en&lr=&id=c0Wk9IuBmAoC&oi=fnd&pg=PP2&dq=Discovering+ statistics +using+IBM+ SPSS+statistics&ots=LcGiLO0yYB&sig=dCm01WgpdRiqJeTq7STIk0Y7cyM&redir_esc=y#v=onepage&q=Discovering %20statistics%20using%20IBM%20SPSS%20statistics&f=false

Griffith, A. K. (2020). Parental burnout and child maltreatment during the COVID-19 pandemic. Journal of Family Violence, 37, 725-731. https://doi.org/10.1007/s10896-020-00172-2

Han, Z. R., Ahemaitijiang, N., Yan, J., Hu, X., Parent, J., Dale, C., DiMarzio, K., & Singh, N. N. (2021). Parent mindfulness, parenting, and child psychopathology in China. *Mindfulness,* 12(2), 334-343. https://doi.org/10.1007/s12671-019-01111-z

Hayes, A. F. (2012). PROCESS: *A versatile computational tool for observed variable mediation, moderation, and conditional process modelling*. Guilford Press. http://www.afhayes.com/ public/process2012.pdf

Hwang, Y., Choi, I., Yum, J. Y., & Jeong, S. H. (2017). Parental mediation regarding children's smartphone use: Role of protection motivation and parenting style. *Cyberpsychology, Behaviour, and Social Networking, 20*(6), 362-368. https://doi.org/10.1089/cyber.2016.0555

Johnson, G. M., & Puplampu, K. P. (2008). Internet use during childhood and the ecological techno-subsystem. *Canadian Journal of Learning and Technology*, *34*(1), Article EJ1073829. https://eric.ed.gov/?id=EJ1073829

Jones, C. L. (2019). *Mindfulness as a new parenting model to scaffold children against risks of media exposure* [Doctoral dissertation, Fielding Graduate University]. ProQuest Dissertations & Theses Global. https://www.proquest.com/openview/8199942c4ca62ea56adbd7abf89240d5/1?pq-origsite=gscholar&cbl=18750&diss=y

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144-156. http://dx.doi.org/10.1093/clipsy.bpg016.

Kil, H., Lee, E., Antonacci, R., & Grusec, J. E. (2022). Mindful parents, mindful children? Exploring the role of mindful parenting. *Parenting*, *2022*, 1-19. https://doi.org/10.1080/15295192.2022.2049601

Lo, H. H. M., Wong, J. Y. H., Wong, S. W. L., Wong, S. Y. S., Choi, C. W., Ho, R. T. H., Fong, R. W. T., & Snel, E. (2019). Applying mindfulness to benefit economically disadvantaged families: A randomized controlled trial. *Research on Social Work Practice*, *29*(7), 753-765. https://doi.org/10.1177/1049731518817142

Manja, S. A., Mohamad, I., Ismail, H., & Yusof, N. I. (2020). COVID-19: The investigation on the emotional parental burnout during Movement Control Order in Malaysia. *European Journal of Molecular & Clinical Medicine*, *7*(2), 4912-4929. https://ejmcm.com/article_3110_aa98bb339b711c8a45010528ba7f9554.pdf

Mikolajczak, M., & Roskam, I. (2018). A theoretical and clinical framework for parental burnout: The Balance between Risks and Resources (BR^2). *Frontiers in Psychology*, *9*, Article 886. https://doi.org/10.3389/fpsyg.2018.00886

Neumann, M. M. (2015). Young children and screen time: Creating a mindful approach to digital technology. *Australian Educational Computing*, *30*(2), 1-15. http://journal.acce.edu.au/index.php/AEC/article/view/67

Nikken, P., & de Haan, J. (2015). Guiding young children's internet use at home: Problems that parents experience in their parental mediation and the need for parenting support. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *9*(3). https://doi.org/10.5817/CP2015-1-3

Nikken, P., & Jansz, J. (2014). Developing scales to measure parental mediation of young children's internet use. *Learning, Media, and Technology*, *39*(2), 250-266. https://doi.org/10.1080/17439884.2013.782038

Paucsik, M., Urbanowicz, A., Leys, C., Kotsou, I., Baeyens, C., & Shankland, R. (2021). Self-compassion and rumination type mediate the relation between mindfulness and parental burnout. *International Journal of Environmental Research and Public Health, 18*(16), Article 8811. https://doi.org/10.3390/ijerph18168811

Pflügner, K., Maier, C., & Weitzel, T. (2021). The direct and indirect influence of mindfulness on techno-stressors and job burnout: A quantitative study of white-collar workers. *Computers in Human Behaviour, 115*, Article 106566. https://doi.org/10.1016/j.chb.2020.106566

Rivera, C. E., Coyne, L. W., Daigle, K. M., Guzick, A., Reid, A., & Shea, S. (2022). Mindfulness, parenting behaviour, and children's mental health: An investigation among diverse, low-income mothers of preschool aged children. *Journal of Contextual Behavioural Science, 24*, 79-86. https://doi.org/10.1016/j.jcbs.2022.03.003

Roskam, I., & Mikolajczak, M. (2020). Gender differences in the nature, antecedents and consequences of parental burnout. *Sex Roles, 83*(7), 485-498. https://doi.org/10.1007/s11199-020-01121-5

Roskam, I., Aguiar, J., Akgun, E., Arikan, G., Artavia, M., Avalosse, H., Aunola, K., Bader, M., Bahati, C., Barham, E. J., Besson, E., Beyers, W., Boujut, E., Brianda, M. E., Brytek-Matera, A., Carbonneau, N., César, F., Chen, B.-B., Dorard, G.,Mikolajczak, M. (2021). Parental burnout around the globe: A 42-country study. *Affective Science, 2*(1), 58-79. https://doi.org/10.1007/s42761-020-00028-4

Roskam, I., Brianda, M. E., & Mikolajczak, M. (2018). A step forward in the conceptualization and measurement of parental burnout: The Parental Burnout Assessment (PBA). *Frontiers in Psychology, 9*, Article 758. https://doi.org/10.3389/fpsyg.2018.00758

Singh, N. N., Lancioni, G. E., Medvedev, O. N., Hwang, Y. S., & Myers, R. E. (2021). A component analysis of the mindfulness-based positive behaviour support (MBPBS) program for mindful parenting by mothers of children with autism spectrum disorder. *Mindfulness, 12*(2), 463-475. https://dx.doi.org/10.1007%2Fs12671-020-01376-9

Siu, A. F. Y., Ma, Y., & Chui, F. W. Y. (2016). Maternal mindfulness and child social behaviour: The mediating role of the mother-child relationship. *Mindfulness, 7*(3), 577-583. https://doi.org/10.1007/s12671-016-0491-2

Skjerdingstad, N., Johnson, M. S., Johnson, S. U., Hoffart, A., & Ebrahimi, O. V. (2021). Parental burnout during the COVID-19 pandemic. *Family Process, 61*(4), 1715-1729. https://doi.org/10.1111/famp.12740

Swit, C. S., & Breen, R. (2022). Parenting during a pandemic: Predictors of parental burnout. *Journal of Family Issues. 2022*, Article 0192513X211064858. https://doi.org/10.1177/0192513X211064858

Vaydich, J. L., & Cheung, R. Y. M. (2022). Parental burnout during the second year of the COVID-19 Pandemic: Exploring the role of parenting stressors and coparenting support. *The Family Journal, Article* 10664807221123556. https://doi.org/10.1177/10664807221123556

Vertsberger, D., Roskam, I., Talmon, A., van Bakel, H., Hall, R., Mikolajczak, M., & Gross, J. J. (2022). Emotion regulation during the COVID-19 pandemic: Risk and resilience factors for parental burnout (IIPB). *Cognition and Emotion, 36*(1), 100-105. https://doi.org/10.1080/02699931.2021.2005544

Wang, W., Wang, S., Chen, S., & Li, Y. (2022). Parental burnout and job burnout in working couples: An actor-partner interdependence model. *Journal of Family Psychology*, 36(5), 704-712. https://doi.org/10.1037/fam0000953

Wiemer, S., & Clarkson, L. (2023). "Spread too thin": Parents' experiences of burnout during COVID-19 in Australia. *Family Relations, 72*(1), 40-59. https://doi.org/10.1111/fare.12773

Woine, A., Mikolajczak, M., Gross, J., van Bakel, H., & Roskam, I. (2022). The role of cognitive appraisals in parental burnout: A preliminary analysis during the COVID-19 quarantine. *Current Psychology*, 2022, 1-14. https://doi.org/10.1007/s12144-021-02629-z

Wu, C. S. T., Fowler, C., Lam, W. Y. Y., Wong, H. T., Wong, C. H. M., & Loke, A. Y. (2014). Parenting approaches and digital technology use of preschool age children in a Chinese community. *Italian Journal of Paediatrics, 40*, 1-8. https://dx.doi.org/10.1186%2F1824-7288-40-44

Zack, E., & Barr, R. (2016). The role of interactional quality in learning from touch screens during infancy: Context matters. *Frontiers in Psychology, 7*, Article 1264. https://doi.org/10.3389/fpsyg.2016.01264

Zaman, B., Nouwen, M., Vanattenhoven, J., de Ferrerre, E., & Looy, J. V. (2016). A qualitative inquiry into the contextualized parental mediation practices of young children's digital media use at home. *Journal of Broadcasting & Electronic Media, 60*(1), 1-22. https://doi.org/10.1080/08838151.2015.1127240

Zhang, W., Wang, M., & Ying, L. (2019). Parental mindfulness and preschool children's emotion regulation: The role of mindful parenting and secure parent-child attachment. *Mindfulness, 10*(12), 2481-2491. https://doi.org/10.1007/s12671-019-01120-y