

Parental mediation on children's emotional behavioral adjustment in Kota Kinabalu, Sabah

Mediación de los padres sobre el ajuste del comportamiento emocional de los niños en Kota Kinabalu, Sabah

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Abstract: Background: The present research was designed to investigate the influence of parental mediation on children's emotional, behavioral adjustment and the moderation effect of children's gender and parents' education level on the association. Methods: 177 parents from Kota Kinabalu (central capital of Sabah) participated as the respondents answering online questionnaires which involved Livingstone and Helsper (2008) Parental Mediation (LHPM), and Strengths and Difficulties Questionnaire (SDQ). Results: Multiple regression analysis indicated a significant positive association of monitoring and active co-use with prosocial behaviors; $F(2, 174) = 14.393, p < .05$. Monitoring was negatively significantly associated with conduct problems; $F(1, 175) = 5.267, p < .05$ and hyperactivity/inattention; $F(1, 175) = 13.920, p < .05$. Active co-use was negatively significantly associated with peer problems; $F(1, 175) = 7.005, p < .05$. Interaction and technical restriction were not significantly associated with any contexts of SDQ. The moderation analysis for children's gender and parents' education level reflected no significant association. Conclusions: Overall, integrating monitoring and active co-use as parental mediation strategies is encouraged in Malaysia's context. Both strategies significantly influence children's adjustment in the emotional, behavioral context, promote positive behavior, and decrease the risk of negative ones.

Keywords: Emotional Behavioral Adjustment; Moderation; Parental Mediation.

Resumen: Antecedentes: la presente investigación pretende investigar la influencia de la mediación de los padres en el ajuste emocional y conductual de los niños y el efecto de moderación del género de los niños y el nivel educativo de los padres en la asociación. Métodos: 177 padres de Kota Kinabalu (capital central de Sabah) participaron como encuestados que respondieron cuestionarios en línea que involucraron a Livingstone y Helsper (2008) Mediación parental (LHPM) y Cuestionario de fortalezas y dificultades (SDQ). Resultados: El análisis de regresión múltiple indicó una asociación positiva significativa de la monitorización y el uso compartido activo con las conductas prosociales; $F(2, 174) = 14.393, p < .05$. El seguimiento se asoció de forma negativa y significativa con problemas de conducta; $F(1, 175) = 5.267, p < .05$ e hiperactividad / falta de atención; $F(1, 175) = 13,920, p < .05$. El uso compartido activo se asoció de forma negativa y significativa con los problemas de los compañeros; $F(1, 175) = 7,005, p < .05$. La interacción y la restricción técnica no se asociaron significativamente con ningún contexto de SDQ. El análisis de moderación para el género de los niños y el nivel de educación de los padres no reflejó una asociación significativa. Conclusiones: En general, en

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el contexto de Malasia se alienta la integración del monitoreo y el uso compartido activo como estrategias de mediación parental. Ambas estrategias influyen significativamente en la adaptación de los niños al contexto emocional y conductual, promueven comportamientos positivos y disminuyen el riesgo de comportamientos negativos.

Palabras clave: Ajuste de comportamiento emocional; Moderación; Mediación parental.

1. Introduction

As society is on the brink of the new era of emerging enhanced gadgets and media, there has been a change in each household's family dynamic. Children are brought up and introduced to various technological gadgets and media applications due to the parents' influence and application developers' target audience. As a result, they are the most thriving Internet users with unprecedented media use levels (Binti Hamzah & Khiu, 2018). Such a trend is correspondingly mushrooming among Malaysian children (Malaysian Communication and Multimedia Commission, 2018).

Malaysian primary school children (7-12 years old) are actively engaged with diverse social interactions via the Internet and gadgets. In the media-induced environment, they are keen to ascertain their identity and the social landscape they belong to as to Erikson's belief (industry vs. inferiority stage). The children are likely to build industry and start to feel competent and self-reliant in attaining their goals. Trust is developed during this stage, and the children's initiative not being encouraged by parents will lead to doubt and inferiority (Agung et al., 2019). Their routine use of electronic gadgets and media has grown into their life and personal space. Media usage can influence the children's social-emotional adjustment in the context of prosocial behaviors (Limtrakul et al., 2018) and externalizing problems (conduct problems and hyperactivity/inattention) (Hosokawa & Katsura, 2018).

Dealing with older children proves to have its worries and challenges for parents (Vaala & Hornik, 2014). In the period of pre-adolescence, children aged 9 to 11 years old typically have increased privilege and authority to make decisions (Gentile et al., 2014). Parents need to adapt and build their parenting skills when it comes to dealing with and managing their children's daily media usage. Parents' strategies on children regarding media use management are generally known as 'parental mediation' (Wonsun Shin & Jisu Huh, 2011).

Parental mediation can enable children to develop skills to use media moderately without becoming an obsession. Parents' influence is significant in reducing their children's online media activities (Daud et al., 2014). In the light of the association between media and socioemotional adjustment, parental mediation may significantly affect. However, the research on whether parental mediation influences 9-to-11-year-old's emotional, behavioral adjustment still is insufficient (Gentile et al., 2014); (Chen & Chng, 2016). There is a lack of exploration regarding such topics with detailed contexts.

In Malaysia, it was noted that Sabah is one of the highest populated Internet users (Malaysian Communication and Multimedia Commission, 2018) and greater influence by peers on the Internet (CyberSAFE, 2013). Just as profoundly a factor of peer influence is to 9-to-11-year-old's socioemotional development, they tend to use media. Influences from media usage and peers may conflict with parenting, and thus, parents best tailor their rules and guidelines for appropriate media use among children. Parental mediation is associated with family characteristics such as parents' educational level (Nikken & de Haan, 2015) and children's gender (Nikken & Jansz, 2014). Only a few research explored these factors as the moderators of the association between parental mediation and children's emotional, behavioral adjustment (Van Petegem et al., 2019), but the result is still not explicit.

Research conducted in Malaysia concerning the parental mediation model, the studies sampled in Selangor and 16-to-22-year-old youths (Daud et al., 2014); (Benrazavi et al., 2015). Whether the model's influence among younger children's usage of gadgets on their emotional and behavioral adjustment is still uncertain, this is especially seen in the capital of Sabah (Kota Kinabalu), Malaysia. Among the research from the current literature database, sampling only the 9-to-11-year-old's category across other states in Malaysia is still limited.

Thus, this prompts the approach to study the influence of parental mediation on children's emotional, behavioral adjustment and the moderation effect of children's gender and parents' educational level on the association. Based on the literature database, research questions are formulated and stated as follows.

RQ1: Do the parental mediation subscales (active co-use, interaction restriction, technical restriction, and monitoring) have a significant influence on a child's emotional/behavioral adjustment?

RQ2: Does the child's gender play a significant moderator in the association between parental mediation and the child's emotional/behavioral adjustment?

RQ3: Does the parents' education play a significant moderator in the association between parental mediation and a child's emotional/behavioral adjustment?

2. Methods

2.1 Research Design

The present study took approach in the form of quantitative research with the utility of parent-reported questionnaires online. The questionnaire made into Google Form was distributed online among the parents with 9-11-year-olds.

2.2 Research Population and Sample

A population of 40,620 was used as per the 2018 data obtained from the Department of Statistics Sabah. The study population comprises Kota Kinabalu district parents with children of 9 to 11 years old.

The minimum representative sample size of the population is a total of 178 respondents as per G*Power3.1 (Erdfelder et al., 2009) with a medium effect size ($f^2 = .15$) (Cohen, 1988) and an alpha of .05. A few primary schools were randomly sampled with Microsoft Excel software to distribute questionnaires among the targeted sample. In the present study, 177 respondents (parents) participated in the study.

2.3 Research Location

The study implemented was located in the capital city of Sabah, Malaysia (Kota Kinabalu), where the parents are the residents. Primary schools in the Kota Kinabalu district, namely sekolahkebangsaan and sekolahjenis kebangsaan, are randomly selected to distribute the questionnaires.

2.4 Research Instrument

For each instruction and item, the questionnaires are translated to trilingual (English, Malay, and Chinese) due to the multiple ethnicities in the sample. Each set of questionnaires includes three parts: demographic information (Part A), Livingstone and Helsper (2008), Parental Mediation (Daud et al., 2014) (Part B), as well as Strengths and Difficulties Questionnaire (Goodman, 1994) (Part C).

Part A consists of demographic information regarding children's and parents' gender and age as well as parents' religion, education level, monthly income level of the family, employment status, and marital status. The items are adapted to match the present study (Hosokawa & Katsura, 2018).

Part B comprises 4 subscales:

- Active co-use (9 items; e.g., "Setting rules that restrict the child from giving out personal info")
- Interaction restriction (4 items; e.g., "Staying nearby when the child is online")
- Technical restriction (7 items; e.g., "Installing filtering/monitoring software for adverts")
- Monitoring (4 items; e.g., "Checking sites child has visited")

Each item has a five-point Likert scale whereby 1 is equivalent to 'never,' and 5 is to 'very often' (Daud et al., 2014). For Part C, Strengths and Difficulties Questionnaire (SDQ) [19] is known for its popularized use to measure 4-to-16-year-old children's emotional and behavioral adjustment via parent-, teacher-, and child-report formats. The present study focuses on the parent-rating of SDQ. It includes 25 items evenly divided among the subscales: emotional problems, conduct problems, hyperactivity/inattention, peer problems, and prosocial behaviors. They are measured using a 3-point scale, ranging from 0 (Not True) to 3 (Certainly True). Item scoring sums up the items within each subscale but for negative items 7, 11, 14, 21, and 25, reverse scoring is considered. The subscale of emotional problems includes items related to complaints of illness and have many worries. Conduct problems subscale consists of items related to temper tantrums or lying/cheating behavior. Next, the hyperactivity/inattention subscale focuses on the symptoms such as overactivity and restlessness. Peer problems subscales include having at least one good friend and reverse items such as picked on or bullied by other children. Lastly, the prosocial behavior subscale comprises items relevant to being kind or considerate of others (Binti Hamzah & Khiu, 2018); (Goodman, 1994).

2.5 Procedure

Prior to implementing the study, the approval letter obtained from the Ministry of Education and the Sabah Department of Education and consent letters were submitted to gain the principals' permission in the selected primary schools. Afterward, the parents were introduced to the questionnaire set in the online Google Doc form format. They were apprised that all responses would be kept restricted to research purpose use and conceded with the right to withdraw from the study.

2.6 Data Analysis

The data were analyzed with the utility of SPSS version 27 computer program (multiple regression) and PROCESS (Hayes, 2013) (moderation effect).

3. Results and Discussion

3.1 Demographic Information

The representative samples in the study included parents (N = 177); 26.0% males and 74.0% females. Majority are within 36 to 40 years old (36.2%), practice religious beliefs of Christian (46.9%) and Islam (30.5%), and have SPM/O-level (36.7%), undergraduate degree (23.2%), and STPM/Foundation/Diploma (22.6%) or equivalent academic level.

3.2 Influence of Parental Mediation Subscales on Emotional Behavioral Adjustment Subscales

Table 1 presented the multiple regression analysis result about the influence of parental mediation subscales on emotional behavioral adjustment subscales.

Table 1. *Influence of Parental Mediation on Emotional Behavioral Adjustment (N = 177)*

| Predictors | β | t | p | R ² | F |
|-----------------------------------|---------|--------|------|----------------|--------|
| Emotional problems | | | | .025 | .347 |
| Active co-use (ACU) | -.115 | -1.079 | .282 | | |
| Interaction restriction (IR) | .029 | .248 | .805 | | |
| Technical restriction (TR) | -.008 | -.084 | .934 | | |
| Monitoring (Mon) | -.087 | -.780 | .436 | | |
| Conduct problems | | | | | |
| Active co-use (ACU) | -.016 | -.189 | .851 | | |
| Interaction restriction (IR) | .086 | .902 | .368 | | |
| Technical restriction (TR) | .077 | .798 | .426 | | |
| Monitoring (Mon) | -.171 | -2.295 | .023 | .024 | 5.267 |
| Hyperactivity/ inattention | | | | | |
| Active co-use (ACU) | -.080 | -.945 | .346 | | |
| Interaction restriction (IR) | -.011 | -.121 | .904 | | |
| Technical restriction (TR) | -.024 | -.260 | .796 | | |
| Monitoring (Mon) | -.271 | -3.731 | .000 | .068 | 13.920 |
| Peer problems | | | | | |
| Active co-use (ACU) | -.215 | -2.915 | .004 | .046 | 8.497 |
| Interaction restriction (IR) | .015 | .143 | .887 | | |
| Technical restriction (TR) | -.075 | -.925 | .356 | | |
| Monitoring (Mon) | -.126 | -1.479 | .141 | | |
| Prosocial behavior | | | | | |
| Active co-use (ACU) | .220 | 2.702 | .008 | .132 | 14.393 |
| Interaction restriction (IR) | -.161 | -1.468 | .144 | | |
| Technical restriction (TR) | .004 | .045 | .964 | | |
| Monitoring (Mon) | .215 | 2.643 | .009 | .132 | 14.393 |

β = Standard beta coefficient, t = t -test statistics, p = significant level.

Table 1 shows that the monitoring subscale was a significant predictor to the conduct problems, $F(1, 175) = 5.267$; hyperactivity/inattention, $F(1, 175) = 13.920$; and prosocial behaviors, $F(2, 174) = 14.393$; $p < .05$. Active co-use subscale was also noted to be significant predictor in the peer problems, $F(1, 175) = 7.005$; and prosocial behaviors, $F(2, 174) = 14.393$; $p < .05$. There was no significant influence of any parental mediation subscales on the emotional problems.

3.3 Moderation of Children's Gender on the Association

Table 2 presented the moderation result of children's gender on the influence of parental mediation on emotional behavioral adjustment subscales.

Table 2. Moderation Result of Children's Gender

| Items | B | SE B | t | p |
|----------------------------------|-------|------|--------|------|
| Emotional problems | | | | |
| ACU x Children's Gender | .020 | .045 | .443 | .659 |
| IR x Children's Gender | .007 | .074 | .090 | .929 |
| TR x Children's Gender | .015 | .030 | .486 | .627 |
| Mon x Children's Gender | .096 | .060 | 1.598 | .112 |
| Conduct problems | | | | |
| ACU x Children's Gender | -.001 | .042 | -.029 | .977 |
| IR x Children's Gender | -.042 | .069 | -.605 | .546 |
| TR x Children's Gender | -.041 | .028 | 1.506 | .134 |
| Mon x Children's Gender | -.032 | .055 | -.580 | .563 |
| Hyperactivity/inattention | | | | |
| ACU x Children's Gender | .023 | .050 | .451 | .653 |
| IR x Children's Gender | -.107 | .083 | -1.294 | .197 |
| TR x Children's Gender | -.032 | .033 | -.972 | .332 |
| Mon x Children's Gender | .013 | .066 | .198 | .843 |
| Peer problems | | | | |
| ACU x Children's Gender | -.016 | .035 | -.462 | .645 |
| IR x Children's Gender | -.086 | .059 | -1.467 | .144 |
| TR x Children's Gender | -.048 | .024 | -2.056 | .041 |
| Mon x Children's Gender | -.060 | .047 | -1.274 | .204 |
| Prosocial Behaviors | | | | |
| ACU x Children's Gender | -.021 | .050 | -.416 | .678 |
| IR x Children's Gender | .012 | .085 | .140 | .889 |
| TR x Children's Gender | .016 | .034 | .481 | .631 |
| Mon x Children's Gender | -.017 | .067 | -.255 | .799 |

B = Beta coefficient, SE B = Standard error of beta coefficient, t = t-value, p = significant level.

Based on Table 2, there was no significance moderation of children's gender on the influence of parental mediation strategies on children's emotional behavioral adjustment ($p > .05$). Nevertheless, children's gender was reflected as a significant moderator on the influence of technical restriction on peer problems ($B = -.048$; $SE B = .024$; $p < .05$).

3.4 Moderation of Parents' Education Level on the Association

Table 3 presented the moderation result of parents' education level on the influence of parental mediation on emotional behavioral adjustment subscales.

Table 3. Moderation Result of Parents' Education Level

| Items | B | SE B | t | p |
|----------------------------------|-------|------|--------|------|
| Emotional problems | | | | |
| ACU x Parents' education level | -.014 | .018 | -.774 | .440 |
| IR x Parents' education level | -.023 | .031 | -.722 | .471 |
| TR x Parents' education level | -.021 | .012 | -1.821 | .070 |
| Mon x Parents' education level | -.020 | .026 | -.770 | .442 |
| Conduct problems | | | | |
| ACU x Parents' education level | .010 | .016 | .614 | .540 |
| IR x Parents' education level | .003 | .029 | .087 | .931 |
| TR x Parents' education level | -.012 | .011 | -1.086 | .279 |
| Mon x Parents' education level | .005 | .024 | .214 | .831 |
| Hyperactivity/inattention | | | | |
| ACU x Parents' education level | .034 | .019 | 1.770 | .079 |
| IR x Parents' education level | .046 | .035 | 1.325 | .187 |
| TR x Parents' education level | -.006 | .013 | -.489 | .626 |
| Mon x Parents' education level | .012 | .028 | .424 | .672 |
| Peer problems | | | | |
| ACU x Parents' education level | .002 | .014 | .126 | .900 |
| IR x Parents' education level | .023 | .025 | .942 | .348 |
| TR x Parents' education level | -.000 | .009 | -.047 | .963 |
| Mon x Parents' education level | .010 | .021 | .466 | .642 |
| Prosocial Behaviors | | | | |
| ACU x Parents' education level | -.001 | .019 | -.071 | .944 |
| IR x Parents' education level | -.040 | .035 | -1.132 | .259 |
| TR x Parents' education level | -.007 | .013 | -.530 | .597 |
| Mon x Parents' education level | -.010 | .029 | -.357 | .722 |

B = Beta coefficient, SE B = Standard error of beta coefficient, t = t-value, p = significant level.

The result in Table 3 showed no significant moderation effect of the association between parental mediation and children's emotional behavioral adjustment.

4. Discussion

Monitoring was indicated to significantly influence children's conduct problems, hyperactivity, and prosocial behavior. From the cultural perspective, it has become a norm for Malaysian parents to practice collectivist beliefs and values in their parenting, which mainly revolves around authoritarian style. The role of culture has a corresponding effect on parental mediation styles, as seen in Sabah's capital city (Kota Kinabalu). Thus, parents tend to adopt such a style of mediation among their children.

Aside from monitoring, active co-use was a significant predictor of peer problems and prosocial behavior context. The nature of monitoring has a restricted style of parenting on the children's media use, but as the children are preadolescent, they are more open to disclosure with their parents. Parents grow to integrate active co-use into their restricted parenting style as parent-child communication is associated with better quality of relationships and children's well-being. Just as trust and initiative are essential in preadolescence, their effort in reducing the time spent on media use should be encouraged by parents (Agung et al., 2019).

However, interaction and technical restriction were not significantly associated with children's emotional, behavioral adjustment. Banning children's media activity (a form of interaction restriction) (Daud et al., 2014) may conflict with the media-induced environment they are exposed to. Furthermore, not all parents are competent with filtering and monitoring software (Daud et al., 2014) on children's media. Malaysian parents may perceive educating healthy media habits or monitoring children's behavior to be more effective.

Children's gender and parents' education level did not significantly influence the association between parental mediation and children's emotional, behavioral adjustment. This may be due to the cultural factor. Collectivist parents may apply a similarly restrictive approach across the gender in respective to the media usage. Moreover, parents' media experience and perceptions of technology may intervene in their children's media usage and emotional and social wellbeing.

The study results suggested that monitoring and active co-use are two significant predictors of the contexts of emotional, behavioral adjustment. This contributes valuable apprehension to the literature on the buffering effect of parental mediation strategies among preadolescent's adjustment in Malaysia (Sabah; Kota Kinabalu district). It brought light to the parents to be more aware of their response to preadolescents' emotions and behaviors in the media-induced environment. Also, parents gain more insight to customize their media use plan according to age-appropriate and family values.

5. Conclusions

In general, the adaption of monitoring and active co-use significantly influences the children's emotional and behavioral adjustment. It encourages prosocial behaviors and reduces the risk of negative behaviors (conduct problems or peer problems) in Malaysia. The moderation effects of children's gender and parents' education level are not significant.

The present study was interpreted with caution, and a few limitations were identified. Among these, the study relies on self-reports from parents about the parental mediation strategies adapted and 9-11-year-old children's emotional, behavioral adjustment (SDQ). Future research is encouraged to include multiple informants, such as children's and teachers' perspectives. It can be used as alternatives for assessing the two instruments. More research can be implemented to explore in detail to encourage awareness regarding the significance of parental mediation strategies on children's emotional, behavioral adjustment and discover the association's potential moderators.

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8. Declaration of Conflicts of Interest/Ethical Declaration (Optional)

The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper.

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