

Vol. 4, No. 1, 2022

IIUM JOURNAL OF HUMAN SCIENCES

A Peer-reviewed Journal
ISSN 2682-8731 (Online)

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The Influence of Parenting Behaviour and Social Support on Parenting Stress and Behavioural Problems of Autistic Children: A Conceptual Study within the Malaysian Context

Rokhwatun Nisa Damanhuri and Nazariah Shari'e Janon
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ABSTRACT

Parents with ASD children reported experiencing a high level of parenting stress due to extra parenting demands when parenting their children. Studies have reported that parenting stress influences child behaviour problems; however, there are inconsistent research findings on the relationship. This is mainly due to the role of third variables (i.e., parenting behaviour and social support) that reveals variability in the research findings. These inconsistent findings have encouraged researchers to further investigation for the role of parenting behaviour and social support in the relationship between parenting stress and child behaviour problems. This paper aims to propose an empirical conceptual framework that investigates the role of parenting behaviour in mediating the relationship between parenting stress and autistic children's behavioural problems and the moderating role of social support in mitigating the effect of parenting stress on parenting behaviour in the Malaysian context, as there are only a handful of studies that conducted such a relationship outside the Western context.

Keywords: parenting stress; parenting behaviour; social support; child behaviour problems

INTRODUCTION

Background of the study

Raising children with autism spectrum disorder (ASD) is quite challenging and most of the parents of these children face difficulties in the caregiving process due to their ASD characteristics such as deficits in social communication and interaction, and a repetitive or restricted pattern of behaviour, activities, thoughts and interests (American Psychological Association [APA], 2000). Parents of typically developing children do not face the same concerns. The manifestation of these ASD characteristics by children causes increased parenting demands and time spent caring for a child with ASD due to constant monitoring and supervision of the children as well as being vigilant in managing their behaviour (Phetrasuwan & Miles, 2009; Lyons, Leon, Phelps, & Dunleavy, 2010; Wang et al., 2013; Hsio, 2014). Failure to cope with these parenting demands may result in parents experiencing stress while caring for their children.

Problem Statement

In general, parenting stress can be defined as a negative feeling or condition that parents experience when they perceive that parenting demands outweigh their ability to cope with them (Deater-Deckard, 1998; Miranda, Tarraga, Fernandez, Colomer, & Pastor, 2015). It is crucial to be concerned about parents who are experiencing parenting stress as it has been linked to negative outcomes for children's development.

Several studies have found that parenting stress contributes to the development of child behaviour problems (Bauminger, Solomon, & Rogers, 2010; Neece & Green, 2012; Zaidman-Zait et al., 2014) wherein a higher level of parenting stress is associated with aggressive behaviour, social withdrawal and depression (Woodman, Mawdsley, & Hauser-Cram, 2015; Davis & Neece, 2017; Rodriguez, Hartley, & Bolt, 2019). Further, consistent findings regarding this association have also been observed in non-Western studies. Lin et al. (2021) found that parenting stress increases children's behaviour problems in Chinese samples. This is supported by another study in Japanese samples that found parenting stress is a predictor of child behavioural problems (Ueda, Ding, Blumberg, Zhang, Yu, & Lantier, 2020). However, Chung et al. (2013) did not find a significant relationship between parenting stress and child behavioural problems in Korean samples. The contradictory findings may possibly be due to cultural context. Culture and values of individual context influence how parents perceive their challenging roles and daily hassles in raising autistic children (Kwok & Wong, 2000; Jiar & Xi, 2012; Dyches et al., 2014), as well as parents' perception and tolerance of their children's behaviour problems. For example, Chung et al. (2013) found that parents in Korea reported that their children did not have severe behavioural problems despite experiencing high levels of parenting stress while raising them, in contrast to Chinese and Japanese samples (Ueda et al., 2020; Lin et al., 2021), who reported high parenting stress as well as severe behavioural problems in their children. Since inconsistent findings are found in non-Western countries and there is a possibility of culture playing a role in this association, more research is recommended to investigate the relationship between parenting stress and behaviour problems in children with ASD in non-Western countries, particularly Malaysia, where research on this association is scarce. Furthermore, given the high level of parenting stress reported by Malaysian parents of children with ASD (Basri & Nik Hashim, 2019; Rahman & Jermadi, 2021), there is high probability that Malaysian ASD children record high numbers of behavioural problems. Therefore, there is a need for empirical research to test the assumption as research in this area is limited. In addition, researching the association between parenting stress and autistic behavioural problems in a Malaysian context may demonstrate results that are different but accurate to the Malaysian population.

Despite the fact that parenting stress has direct influence on child behaviour problems, several studies have found that the relationship between parenting stress and children behavioural problem is mediated by parenting behaviour (Belsky, 1984; Abidin, 1990; 1992; Crnic & Low, 2002; Kawabata et al., 2011; Parent et al., 2011; McRae, Stoppelbein, Sarah, Fite & Greening, 2017). For example, stressed-out parents are more likely to use harsher parental discipline and are less likely to be responsive when raising their children, and these parenting behaviours may later result in noncompliance, aggression and rule-breaking behaviour (Gerstein & Poehlmann-Tynan, 2015; Shawler & Sullivan, 2015). This implies that parental behaviour is a third variable that mediates the effect of parenting stress on child behaviour problems (Osborne, McHugh, Saunders & Reed, 2008; Liu & Wang, 2015; Mak, Yin, Cheung & Oon, 2020).

However, findings that implicate parenting behaviour as a mediator in the relationship between parenting stress and child behaviour problems cannot be generalised. This is due to lack of consensus regarding the mediator role of parenting behaviour as a result of a scarcity of research on this association (Shawler & Sullivan, 2015; Sanner & Neece, 2018). Prior research has only focused on the direct relationship between parenting stress and child behaviour problems (Osborne & Reed, 2009; Neece & Green, 2012; Chung et al., 2013; Zaidman-Zait et al., 2014; Woodman, Mawdsley, & Hauser-Cram, 2015; Rodriguez, Hartley, & Bolt, 2019), rather than the indirect relationship. Thus, this paves the way for further research into the indirect relationship between parenting stress and child behaviour problems via parenting behaviour. By examining parenting behaviour as a mediator, particularly among parents with autistic children in the Malaysian context, it can help to identify whether Malaysian parents with

autistic children are also harsh in interacting with these children when they are under stress just like those autistic parents in Western cultures. On the other hand, their parental behaviour is not predicted by their level of stress as cultural and religious values teach them to accept their autistic children as gifts from God that need to be cared for properly (Ting & Chuah, 2010; Illias et al., 2017; 2019); thus they are less likely to be harsh with the children despite their exhaustion in taking care of them. Therefore, caution should be used when applying findings from Western countries to non-Western countries, as cultural context may play a role in various types of parenting behaviours. In light of this, the purpose of the proposed conceptual framework is to examine the relationship between parental stress, parenting behaviour and child behaviour problems among children with ASD in Malaysia.

It is highlighted earlier that parenting stress leads to dysfunctional parenting behaviour and, in turn, that parenting behaviour contributes to more child behaviour problems. However, several studies have also reported research findings indicating that the presence of social support can reduce the negative influence of parenting stress on parenting behaviour (Rodgers, 1998). It is assumed that social support acts as a moderator, or buffer, against the influence of stress on parenting behaviour (Belsky, 1984; Crnic & Greenberg, 1990; Rodgers, 1998; Heberle, Krill, Briggs-Gowan & Carter, 2015). For example, parents who have more social support are less stressed and more likely to engage in positive parenting behaviours (Crnic & Greenberg, 1990; Uno, Florsheim, & Uchino, 1998), which contribute to the reduction of child behaviour problems. However, studies on the buffering effect of social support in the relationship between parenting stress and parenting behaviour have yielded inconsistent findings. Some studies found that social support can mitigate the negative effect of parenting stress on parenting behaviour, while others refute that idea by finding that parenting stress is a strong predictor of parenting behaviour and that social support may not be strong enough to attenuate the negative influence of parenting stress on parenting behaviour (Rodgers, 1993; 1998; Ostberg & Hagekull, 2000; Respler-Herman, Mowder, Yasik, & Shamah, 2012; Zhang, Cubbin & Ci, 2016). This inconsistency has provided an ambiguous picture of the role of social support as a buffer in the relationship between parenting stress and parenting behaviour. More research on this relationship is needed because it is important to understand how social support or what kind of social support acts as a "buffer" to mitigate the negative effects of parenting stress on parenting behaviour, particularly among Malaysian parents with autistic children.

To fill the gaps mentioned above, the present study aims to examine the role of social support in the newly proposed conceptual framework for Malaysian parents with autistic children. It is important to look into the influence of social support in the relationship between parenting stress and parenting behaviour for different countries, as each country is believed to have its own unique set of characteristics in parenting practices (i.e., parents' roles and responsibilities, parenting methods and affection methods) (Jiar & Xi, 2012) as well as the specific need for social support. Therefore, conducting research on each country's own population can aid in demonstrating findings that reflect the behavioural culture and values that shape the population of that country. At present, very few studies are available to provide research findings on the influence of social support on the relationship between parenting stress and parental behaviour. Hence, this present study aims to further investigate the relationship between the three variables (i.e., parenting stress, parenting behaviour and social support) and child behaviour problems in the Malaysian context as research on this is still limited.

Research questions

Based on the arguments in the problem statement section above, the present study (i.e., the new conceptual framework) aims to investigate the following research question; firstly, what is the relationship between parenting stress and child behaviour problems among Malaysian children with

ASD?; secondly, does parenting behaviour mediate the relationship between parenting stress and child behaviour problems among Malaysian children with ASD?; and thirdly, does social support moderate the relationship between parenting stress and parenting behaviour among Malaysian children with ASD?

Objectives of the study

The present study aims to propose an empirical conceptual framework that investigates the influence of parenting and social support on behavioural problems of autistic children in the Malaysian context. The objectives of the new conceptual framework are to investigate; firstly, the effect of parenting stress on children's behavioural problems; secondly, the mediating role of parenting behaviour in the relationship between parenting stress and child behavioural problems; and thirdly, the moderating role of social support in the relationship between parenting stress and parenting behaviour.

Significance of the study

This paper attempts to extend previous research by developing a conceptual framework to provide a better explanation related to the influence of parenting stress on child behaviour problems. In particular, in understanding how the presence of parenting behaviour and social support may relate to the relationship between parenting stress and child behaviour problems. Such information can enhance the understanding of researchers, professionals, and practitioners about the relationship of parenting stress, parenting behaviour and social support on the development of child behaviour problems. Subsequently, this information can aid in designing a comprehensive intervention or educational programme that incorporates parenting and social support as key components to lessen the development of behaviour problems among children with ASD. In addition, since this conceptual framework will be examined outside of western settings, thus, such findings can contribute to the body of knowledge by providing new insight on how this relationship manifests itself in different cultural settings, such as the autism population in Malaysia.

THE RELATIONSHIP BETWEEN PARENTING STRESS AND CHILDREN BEHAVIOURAL PROBLEMS

Several studies have examined the relationship between parenting stress and child behaviour problems (Osborne & Reed, 2009; Bauminger, Solomon, & Rogers, 2010; Hall & Graff, 2012; Tharner et al., 2012; Mackler, Kelleher, Shanahan, Calkins, Keane, & O' Brien, 2015; Stone, Mares, Otten, Engels, & Janssens, 2015; Barroso, Mendez, Graziano & Bagner, 2017; Rodrigues, Hartley, & Bolt, 2019; Tsotsi et al., 2019; Yarger & Redcay, 2020). Tharner et al. (2012) found a significant relationship between parenting stress and child behaviour problems, with stressed-out parents contributing to their children's later withdrawn behaviour, emotional reactivity, aggressive behaviour and attention deficit problems. A recent study by Tupper, Bureau, Deneault, Dixon-Luinenburg and St-Laurent (2020) also demonstrates similar findings whereby maternal parenting stress significantly predict a higher level of child behaviour problems.

Furthermore, the significant association between parenting stress and child behaviour problems found in typically developing children was also observed in clinically referred children, such as children with autism spectrum disorder (ASD) (Bauminger, Solomon & Rogers, 2010; Hall & Graff, 2012; Zaidman et al., 2014). For instance, a cross-sectional study of families of children with ASD (Giovagnoli et al., 2015) examined the prevalence of parenting stress and child behaviour problems in a sample of preschool-aged children with ASD and found a strong relationship between parenting stress and child behaviour problems. The findings of this study are supported by another ASD research

conducted by Bauminger, Solomon and Roger (2010). According to Bauminger and colleagues (2010), children with ASD exhibit more aggressive, delinquent, withdrawn and avoidant behaviour as a result of being raised by stressed parents (especially mothers). Thus, based on previous research (Bauminger, Solomon, & Roger, 2010; Tharner et al., 2012; Giovagnoli et al., 2015), there is evidence that parenting stress is a predictor to the development of behaviour problems in children, implying that increased parenting stress may contribute to more behaviour problems regardless of the children's condition, whether typically developing or atypically developing children, particularly children with ASD.

Despite consistent findings in Western countries regarding the relationship between parenting stress and child behaviour problems, Chung et al. (2013) discovered contradictory findings. They found, in particular, that there is no relationship between parenting stress and child behavioural problems in Korean samples. The findings of Chung et al. (2013) indicate that there are differences between Western and non-Western studies regarding the association between parenting stress and child behaviour problems. Consequently, it is impossible to generalise the findings. This inconsistency of findings prompted the researchers to conduct more research in non-Western countries, particularly in the Asian continent, with focus on atypical child populations in order to find more evidence about this association in a non-Western context.

Therefore, this present study aims to investigate the relationship between parenting stress and child behaviour problems in Malaysian children with ASD in order to identify whether a significant relationship exists in the Malaysian population as has been observed in the Western population. This present study may provide more evidence related to the influence of parenting stress on child behaviour problems within non-Western countries, particularly in Malaysia.

THE MEDIATING ROLE OF PARENTING BEHAVIOUR IN THE RELATIONSHIP BETWEEN PARENTING STRESS AND CHILD BEHAVIOUR PROBLEMS

In general, parenting behaviour refers to specific behaviours that parents perform towards their children during interactions (Locke & Prinz, 2002). Parenting behaviour is a broad concept (it encompasses a wide range of behaviours), but it can be understood by categorising it according to its characteristics, which fall into two categories: positive parenting behaviour and negative parenting behaviour. According to some studies, parenting behaviour is a significant predictor in the development of child behaviour problems (Osborne, McHugh, Saunders & Reed, 2008; Kawabata et al., 2011; Parent et al., 2011; Midouhas, Yogaratnam, Flouri, & Charman, 2013; Maljaars et al., 2014; Bader, Barry, & Hann, 2015; McRae, Stoppelbein, Sarah, Fite, & Greening, 2018). These studies consistently demonstrate that positive parenting behaviour is associated with fewer child behaviour problems (Boeldt et al., 2012), whereas negative parenting behaviour is associated with more child behaviour problems (Bader, Harry, & Hann, 2015; Garriga, Martinez-Lucena, & Moreno, 2018).

Negative parenting behaviours are consistently shown to be associated with a high level of child behaviour problems (Prinz, Onghena & Hellinckx, 2006; Landsford et al., 2011; Boonen et al., 2014; Wang & Kenny, 2014; McRae et al., 2019). For example, Prinzie, Onghena and Hellinckx (2006) found that harsh discipline (i.e., coercion and over-reactivity) has a significant effect on child behaviour problems. Parent et al. (2011) also support the findings of Prinzie, Onghena and Hellinckx (2006) that negative parenting behaviour (i.e., dysfunctional discipline parenting behaviour) is significantly related to the development of more child behaviour problems. These consistent findings have also been found in studies of atypical children, such as children with ASD. Boonen and his colleagues (2014) conducted a research on children with ASD and found that both types of negative controlling parenting behaviour

(i.e., discipline and harsh punishment) made a significant contribution to child behaviour problems (i.e., conduct problems and hyperactivity/inattention) for the ASD group. Consistent findings observed in both typical and atypical children regarding this association imply that negative parenting behaviour is considered as a risk factor for behaviour problems in all children.

In addition to research on negative parenting behaviour, a number of studies have examined the relationship between positive parenting behaviour and child behaviour problems (i.e., Osborne, McHugh, Saunders & Reed, 2008; Van Prooijen et al., 2018). There is some evidence that positive parenting is negatively associated with child behaviour problems (Osborne et al., 2008; Gryczkowski, Jordan, & Mercer, 2010; Van Prooijen et al., 2018; McRae et al., 2019; Hickey et al., 2020; Clauser et al., 2020). For example, Van Prooijen, Hutteman, Mulder, Van Aken and Laccelle (2018) found that positive parenting behaviour (i.e., emotional availability) is significantly related to fewer child behavioural problems. Similar finding has also been found by Osborne, McHugh, Saunders and Reed (2008) in which positive parenting behaviour reduces the development of behaviour problems in children with ASD. According to Osborne and colleagues (2008), effective parents often set limits for their children and so the action may be associated with low risk development of behavioural problems. Thus, high positive parenting behaviour as demonstrated by past studies is associated with low child behaviour problems.

The discussions in the above paragraphs indicate the direct influence of parenting stress and parental behaviour on children behavioural outcomes. However, there are also studies that demonstrate how parenting stress, parenting behaviour and child behaviour problems are related to each other (Maljaars, Boonen, Lambrechts, Leeuwen & Noens, 2014; Boonen, Maljaars, Lambrechts, Zink, Van Leeuwen & Noens, 2014). Parenting stress is found to have a link to child behaviour problems through an indirect path via parenting behaviour (Deater-Deckard, 1998; Hasting, 2002).

Deater-Deckard and Scarr (1996) found that parents who are under stress use more authoritarian and assertive disciplinary strategies, which, in turn, influence more child behavioural problems. Gerstein and Poehlmann-Tynan (2015) also support a similar finding whereby parenting behaviour is a mediator in the relationship between parenting stress and child behavioural problems. Thus, previous studies (Deater-Deckard & Scarr, 1996; Gerstein & Poehlmann-Tynan, 2015) have shown the evidence on the role of parenting behaviour as a mediator in the relationship between parenting stress and child behavioural problems.

Although studies have claimed that parental behaviour mediates the relationship between parenting stress and child behavioural outcomes, there are also findings that demonstrate how parental behaviour do not mediate the relationship. For instance, Crnic, Gaze and Casey (2005) found evidence that parenting stress has a more direct link to the development of child behaviour problems rather than an indirect link (no mediation). Other studies, including those by Huth-Bocks and Hughes (2008) and Ward and Lee (2020) also found no mediation of parenting behaviour in the relationship between parenting stress and child behavioural problems. This inconsistency in research findings motivates the present study to conduct additional research in a new context (i.e., Malaysia) on the role of parenting behaviour as a mediator in the relationship between parenting stress and child behaviour problems among children with ASD.

THE MODERATING ROLE OF SOCIAL SUPPORT IN THE RELATIONSHIP BETWEEN PARENTING STRESS AND PARENTING BEHAVIOUR

Several studies have found that parenting stress influences parents to adopt certain parenting behaviour (Abidin, 1992; Deater-Deckard, 1998; Hasting, 2002). A study by Rodgers (1993) found that when parents experienced stress, they reported using negative parenting behaviour (i.e., parental rejection-oriented behaviour, parental coldness, punishment and also inconsistent parenting). However, studies also have discovered that, in addition to the direct relationship between parenting stress and parenting behaviour, the effect of parenting stress on parenting behaviour is moderated by a third variable (Crnic & Greenberg, 1990; Rodgers, 1993; 1998; Uno, Florsheim & Uchino, 1998; Heberle, Krill, Briggs-Gowan & Carter, 2015). The variable which is social support, has been discovered to moderate the relationship between parenting stress and parenting behaviour. Social support mitigates the negative effects of parenting stress on parenting behaviour (Belsky, 1984; Crnic & Greenberg, 1990). Heberle, Krill, Briggs-Gowan and Carter (2015) found that high levels of social support may be sufficient to counteract the negative impact of parenting stress on parenting behaviour, thereby contributing to the engagement in more positive parenting behaviours (Uno, Florsheim, & Uchino, 1998).

While some studies have found that social support significantly moderates the relationship between parenting stress and parenting behaviour, others have found contradictory results (i.e., Ostberg & Hagekull, 2000; Respler-Herman, Mowder, Yasik, & Shamah, 2012; Zhang, Cubbin, & Ci, 2016). According to Respler-Herman and colleagues (2012), social support has no moderating effect on the relationship between parenting stress and parenting behaviour because parenting stress appears to be a strong predictor of parenting behaviour and the social support they receive does not sufficiently alleviate the parenting stress that they are experiencing (Zhang, Cubbin & Ci, 2016). This discrepancy has prompted the present study to look into the role of social support as a moderator in the relationship between parenting stress and parenting behaviour. It is important to understand the role of social support as a moderator in the relationship between parenting stress and parenting behaviour in ASD population in the Malaysian context. Findings from this study will give an accurate picture on the moderating role of social support among parents with ASD children and consequently, effective parent education programmes or intervention programmes that focus on social support can be designed accordingly.

PROPOSED CONCEPTUAL FRAMEWORK

Based on the review of literature in the above section, empirical findings from past studies regarding the relationship of studied variables (i.e., parenting stress, parenting behaviour, social support and child behaviour problems) are provided. This section will present the proposed conceptual framework for future empirical study on the role of parenting behaviour and social support on children behavioural problems.

The proposed conceptual framework is guided by three theoretical frameworks, particularly: (1) the theory of Belsky's Determinants of Parenting (1984); (2) the model of parenting stress (Abidin, 1978 as cited in Abidin, 1990); and (3) Abidin's (1992) determinants of parenting behaviour. The three are used as the theoretical frameworks because these frameworks provide important insights into the understanding of the relationship between the studied variables (i.e., parenting stress, parenting behaviour, social support and child behaviour problems), particularly: (1) the link between parenting and child development (i.e., child behaviour problems), such as in Belsky's (1984) model; (2) the link between parenting stress and parenting behaviour as seen in the model by Abidin (1978;1992); and (3)

the link between parenting stress, social support and parenting behaviour as presented in the model by Abidin (1992). Using these three models as a theoretical basis can guide the present study on how parenting stress, parenting behaviour, social support and child behaviour problems are linked.

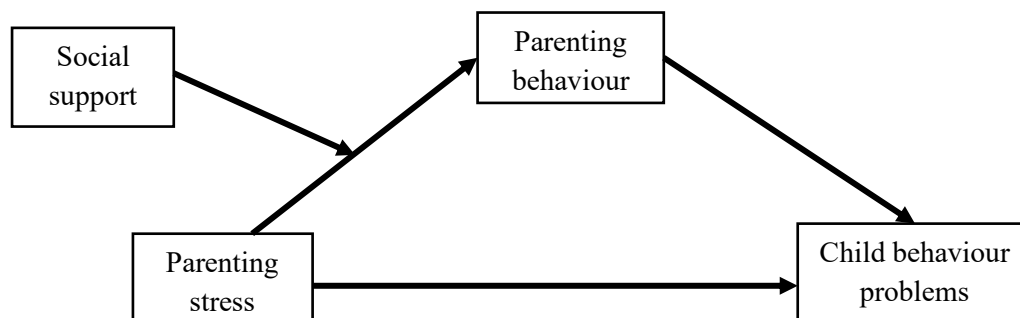
Having stated earlier, the proposed conceptual framework of this present study is developed by integrating the three parenting models (Belsky, 1984; Abidin, 1978; 1992). It could give a strong conceptual framework for any future empirical study that examines the relationship between parenting stress, parenting behaviour, social support and child behaviour problems because the proposed conceptual framework is based on the recent literature review. In addition, the suggested conceptual framework consists of all variables from different theories that have claimed them as important variables that significantly influence children behavioural outcomes.

The conceptual framework (Figure 1) suggests that parenting stress (an independent variable) contributes to child behaviour problems (a dependent variable). Then, the mediator (parenting behaviour) influences the relationship between parenting stress and child behaviour problems. In addition, the relationship between parenting stress and parenting behaviour can be buffered by the moderator (social support).

In conclusion, this conceptual framework highlights that parenting stress is the predictor variable, parenting behaviour is the mediator variable, social support is the moderator variable and child behaviour problem is the outcome variable. Through this conceptual framework, it will provide several important findings, such as (1) the direct relationship between parenting stress and child behaviour problems; (2) the direct relationship between parenting behaviour and child behaviour problems; (3) the indirect relationship between parenting stress and child behaviour problems, in which parenting behaviour is a mediator in this relationship; and (4) the indirect relationship between parenting stress and parenting behaviour, in which social support is a moderator in this relationship.

The conceptual framework of this present study is as follows:

Figure 1: Conceptual Framework



Potential Research hypotheses

Based on the proposed conceptual framework in the above section, the suggested hypotheses for empirical study are as follows:

H1 = Parenting stress will have a significant effect on child behaviour problems (i.e., emotional symptoms, conduct problems, hyperactivity, peer problems).

H2 = Parenting behaviour (i.e., involvement, positive parenting behaviour, poor monitoring and supervision, inconsistent discipline and corporal punishment) will have a significant effect on child behaviour problems (i.e., emotional symptoms, conduct problems, hyperactivity, peer problems).

H3 = Parenting behaviour (i.e., involvement, positive parenting behaviour, poor monitoring and supervision, inconsistent discipline and corporal punishment) will significantly mediate the relationship between parenting stress and child behaviour problems (i.e., emotional symptoms, conduct problems, hyperactivity, peer problems).

H4= Social support will significantly moderate the relationship between parenting stress and parenting behaviour (i.e., involvement, positive parenting behaviour, poor monitoring and supervision, inconsistent discipline and corporal punishment).

METHOD

The methodology used for this paper consists of a library search and an evaluation of previous literature reviews on the subjects of parenting stress, parenting behaviour, social support, and child behaviour problems. The scope of library search included both online materials and article journals. References are derived from online databases such as Scopus, Web of Science, Science Direct, Sage, Taylor and Francis, PsycArticles, ProQuest and Google scholar.

Based on review of previous literature on the topic of parenting stress, parenting behaviour, social support and child behaviour problems, the suggested methodology for an empirical study that tests the proposed conceptual framework.

i. Research design and sample

The study may employ a quantitative approach and a cross-sectional survey. The survey-based study may examine the relationship between parenting stress, parenting behaviour, social support and child behaviour problems using parent self-reported measures. This design was chosen for the study because it permits the researchers to collect quantitative data systematically from a representative sample drawn from a population. The study could be conducted in Klang Valley and Kuala Lumpur. The sample may consist of Malaysian mothers who have a child with ASD between the ages of 5 and 12.

ii. Data analysis

To analyse the data, researcher could use the Statistical Package for Social Sciences (SPSS) version 22 and SmartPLS version 3. The analysis includes a descriptive analysis to present the characteristics of the demographic sample. To analyse the effects of studied variables, the Partial Least Squares-Structural Equation Modelling (PLS-SEM) with SmartPLS version 3.0 could be used. According to Hair, Hult, Ringle and Sarstedt (2014), PLS-SEM is the recommended method of analysis if the model requires; (1) a smaller sample size; (2) a non-normal data distribution assumption; and 3) a complex structural model (having many constructs and indicators in the model).

CONCLUSION

This paper proposes a new conceptual framework that aims to investigate the influence of third variables (parenting behaviour and social support) on the relationship between parenting stress and behaviour problems among Malaysian children with ASD. Studies in the past examined the important variables in the proposed framework separately that may have produced inconsistent research findings due to cultural and contextual influences. To deal with this limitation, the researchers have developed a new conceptual framework containing all important variables that influence ASD behavioural problems as indicated by past studies, all of which are to be investigated in one study. The researchers also suggest that the proposed conceptual framework could assess: (1) the relationship between parenting stress and child behaviour problems; (2) the relationship between parenting behaviour and

child behaviour problems; (3) the mediating role of parenting behaviour in the relationship between parenting stress and child behaviour problems; and (4) the moderating role of social support in the relationship between parenting stress and parenting behaviour.

Based on the literature review, it is expected that all of the studied variables (parenting stress, parenting behaviour, social support, and child behaviour problems) have a significant relationship in Malaysian children with ASD; specifically, parenting stress has significantly direct relationship on child behaviour problems, parenting behaviour is significantly mediates the relationship between parenting stress and child behaviour problems, and social support is significantly moderates the relationship between parenting stress and parenting behaviour. Findings from empirical research that uses the proposed conceptual framework could assist professionals and other relevant parties to design and develop a comprehensive intervention that includes parenting and social support as main components in lessening the development of behaviour problems among children with ASD.

This conceptual paper is the earliest article produced from the research. It emphasises the problem statement that inspired the research, outlines the research question, and objective, reviews the pertinent literature in the areas of parenting, social support, and child behaviour problems, proposed conceptual framework and hypotheses to be tested, and suggested methodology for future empirical study. Future articles to be generated from this research will include a more in-depth discussion of the employed methodology, survey instruments and administration, descriptive and inferential results, and the implications of this study.

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